

MEDICATION USE IN SCHOOLS



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Knowing is not enough; we must apply.

Willing is not enough; we must do.

...Goethe

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Guide For Readers

OBJECTIVES

This book was designed to facilitate several school health responsibilities defined under Florida Statute 381.0056. “The Legislature finds that health services conducted as a part of the total school health program should be carried out to appraise, protect, and promote the health of students. School health services supplement, rather than replace, parental responsibility and are designed to encourage parents/guardians to devote attention to child health, to discover health problems, and to encourage use of the services of their physicians, dentists, and community health agencies.” Specific responsibilities listed in Florida Statute 381.0056 include:

- Meeting emergency health needs in each school;
- Maintenance of records on incidents of health problems, corrective measures taken, ...;
- Provide inservice health training for school personnel;
- Make available adequate physical facilities for health services;
- ...inform parents or guardians in writing that their children who are students in the district schools will receive specified health services as provided for in the district health services plan.

It is hoped that this book will serve school district authorities, school administrators, and school health staff in the following ways:

1. Provide “best practice” concepts and models for developing medication policies, procedures, and guidelines.
2. Serve as a tool for nurses providing training to health aides and other support staff.
3. Provide information on medications and medication related topics.

TABLE OF CONTENTS & INDEXING

The Table of Contents lists all topics and medications in the order in which they appear. The Index lists all medications, both **Generic** and **Brand Name**® in alphabetical order.

MEDICATION IDENTIFICATION

Several editors requested picture identification charts for proprietary medication products. At the time of publication no free service is available. Your options are to contact a poison control center, a licensed pharmacy, or purchase a book such as the “Physician’s Desk Reference” (PDR).

DISCLAIMER

The authors/editors, reviewers, and publisher of this book have made extensive efforts to ensure that the content, medications, and dosage regimens are accurate and conform to the standards accepted at the time of publication. The references used are listed in the General References section. Professional judgement was used to determine which information to provide to make this reference useful to the intended user, without overwhelming one with infrequent or insignificant concerns. However, changes in state laws, constant changes in information resulting from continuing research and clinical experience, reasonable differences in opinions among authorities, unique aspects of individual clinical situations, and the possibility of human error in preparing such an extensive text require that the reader exercise individual judgment when making decisions. If necessary consult and compare information from other experts or sources, especially if the medication or topic is unfamiliar or is used infrequently.

Several forms have been selected or created by the editors to serve as examples for your consideration. These forms are not necessarily complete and may not follow district policy. Sample forms are to be used with professional discretion.

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Dedication

This book is dedicated to three people, without whom this book would not have been written, nor would my life be as rich and full.

*The teacher who inspired me to become a pharmacist;
Who challenged me to find ways to improve myself every day;
Who encouraged me to help others;
Who inspired me by fighting for the rights of students;
The teacher who I proudly called “Mom”.*

*The nurse who inspires me with concern for all children;
Who helped me identify the issues;
Who challenged me and worked with me to “improve the system”;
Who gave me ideas, yet kept me grounded in practicality;
The nurse I am proud to say is my wife.*

*The student who didn’t let asthma slow him down;
Who always finds a way to meet a challenge;
Who inspires me with his cheerful persistence;
Who tries his hardest and does his best;
The student I am proud to call “Son”.*

I wish to thank my co-authors, Mike, Vera, Jean, and Steve who generously donated their time and enthusiastically supported this project through all stages. They are all recognized leaders in the pharmacy profession and I am proud to be their colleague.

Larry Gonzalez is a good friend and colleague who opened many doors and arranged many meetings. Without his contacts, legislative acumen, support, encouragement, and guidance this project would not have been possible.

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... *Phil*

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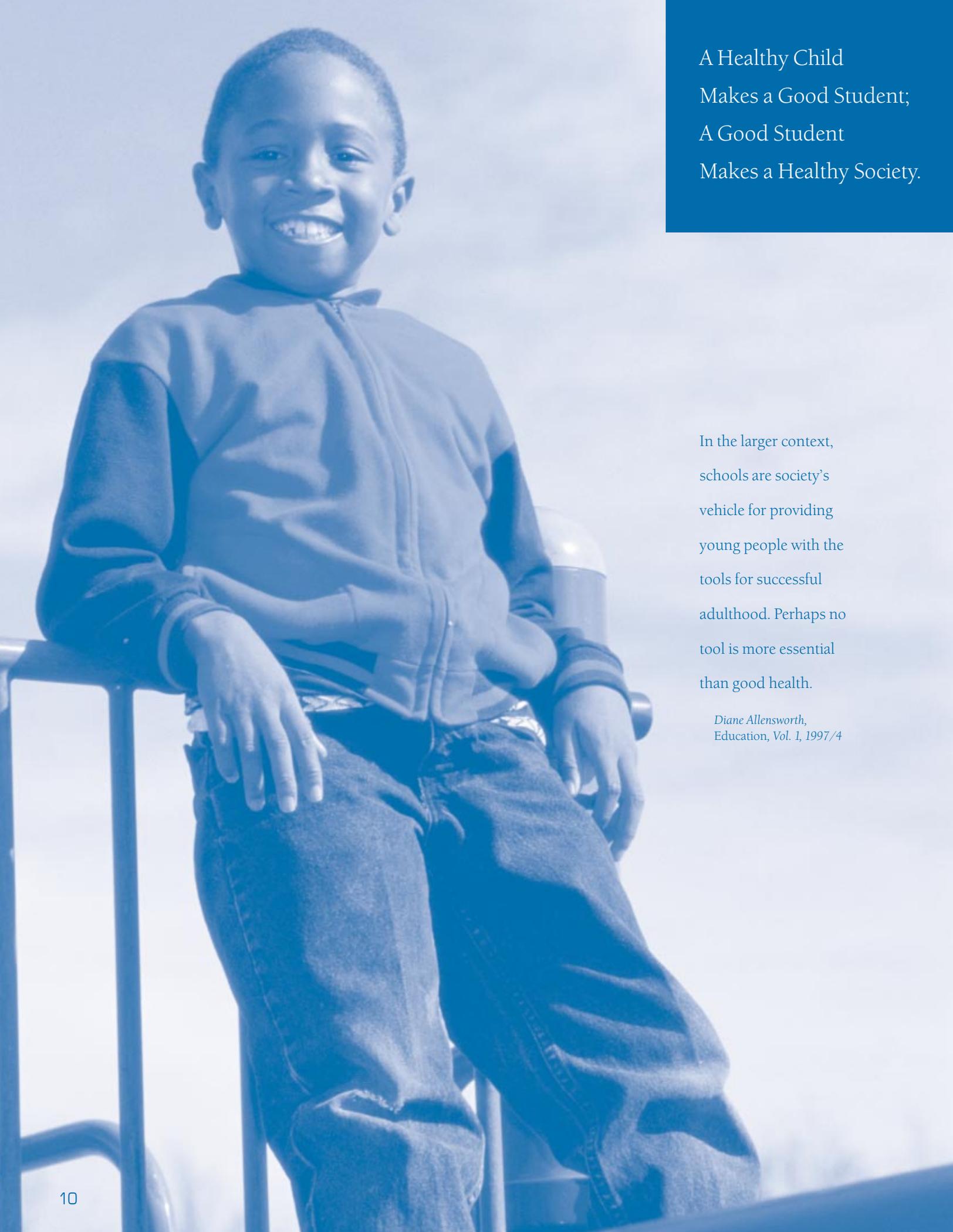
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A Healthy Child
Makes a Good Student;
A Good Student
Makes a Healthy Society.

In the larger context, schools are society's vehicle for providing young people with the tools for successful adulthood. Perhaps no tool is more essential than good health.

*Diane Allensworth,
Education, Vol. 1, 1997/4*

Introduction

- ◆ The School Setting
- ◆ Synergy of Teamwork
- ◆ Determinants of Health
- ◆ Reliability of Student Health Information
- ◆ Summary Comment
- ◆ Cost of Inadequate Health Services in Schools



Education and health are inextricable intertwined. Unhealthy children are unlikely to achieve the high levels of educational achievement required for success in the 21st century.

...National Commission on the Role of the School and Community in Improving Adolescent Health

Proper medication improves outcomes related to disease management, student attendance, student attention span, student performance, and student safety. When the school system supports medication compliance the medication is more likely to provide the desired effect and students will develop healthy, compliant habits that lead to becoming health-responsible adults.

School nurses, teachers, and designated healthcare facilitators should be aware of the signs that the student's medication is not working properly. This could indicate that it is time for the physician to review the medication requirements of the student, but it could also indicate non-compliance at home or at school, and that the student is receiving either too little or too much medication. Changes in attendance, school performance, frequent accidents, and observed behavior changes should be reported to the school nurse.

This chapter contains statements from the "Healthy People 2010" project that support the importance of school health services. It also discusses the reliability of information provided to school health services.

Chapter 2 presents guidelines for teaching children about medicine. Chapters 3 - 5 present sample policies and sample forms. Chapters 6 - 8 address the handling and administration of medication. Chapter 9 presents additional information sources for your consideration. Chapters 10 -11 present information on individual medications. Chapter 12 provides current vaccination guidelines. Chapter 13 presents regulations that were relevant at the time of publication.

The School Setting

From Healthy People 2010
“Educational and Community-Based Programs”,
www.health.gov/healthypeople/Document/HTML/Volume1/07Ed.htm, pp 3-4.

“The importance of including health instruction in education curricula has been recognized since the early 1900s.[11] In 1997, the **Institute of Medicine advised that students should receive the health-related education and services necessary for them to derive maximum benefit from their education and enable them to become healthy, productive adults.**[12]

The school setting, ranging from preschool to university, is an important avenue to reach the entire population and specifically to educate children and youth. Schools have more influence on the lives of young people than any other social institution except the family and provide a setting in which friendship networks develop, socialization occurs, and norms that govern behavior are developed and reinforced. Each school day about 48 million youth in the United States attend almost 110,000 elementary and secondary schools for about 6 hours of classroom time. More than 95 percent of all youth aged 5 to 17 years are enrolled in school. Schools are second only to homes among the primary places that students

Schools have more influence on the lives of young people than any other social institution except the family.

spend their time and thus are one of the significant places where students may be exposed to potentially harmful environmental conditions. (See Focus Area 8. Environmental Health.) During high school, national dropout rates average 12 percent. Prior to high school, dropout is almost nonexistent.[13], [14], [15] Because healthy students learn better than students with health problems, schools also have an interest in addressing the health needs of students. **Although schools alone cannot be expected to address the health and related social problems of youth, they can provide, through their climate and curriculum, a focal point for efforts to reduce health-risk behaviors and improve the health status of youth.**[16]

In 1990, the key elements of school health education were identified: a documented, planned, and sequential program of health education for students in kindergarten through grade 12; a curriculum that addresses and integrates education about a range of categorical health problems and issues at developmentally appropriate ages; activities to help young persons develop the skills they will need to avoid risky behaviors; instruction provided for a prescribed amount of time at each grade level; management and coordination in each school by an education professional trained to implement the program; instruction from teachers who have been trained to teach the subject; involvement of parent/guardian, health professionals, and other concerned community members; and periodic evaluation, updating, and improvement.[17]

More than 12 million students currently are enrolled in the Nation’s 3,600 colleges and universities.[18] Thus, colleges and universities are important settings for reducing health-risk behaviors among many young adults. Health clinics at the post-secondary level can help empower students to take responsibility for their own health through education, prevention, early detection, and treatment. In addition, colleges and universities can play an important role in eliminating racial and ethnic disparities and other inequalities in health outcomes by influencing how people think about these issues and providing a place where opinions and behaviors contributing to these factors can be addressed.”

[11] Commission on the Reorganization of Secondary Education. Cardinal Principles of Secondary Education. Bulletin 35. Washington, DC: Bureau of Education, 1918.

[12] Institute of Medicine. Schools and Health: Our Nation’s Investment. Washington, DC: National Academy Press, 1997.

[13] National Center for Education Statistics (NCES). Digest of Education Statistics, 1993. Washington, DC: NCES, 1993.

[14] NCES. Dropout Rates in the United States: 1993. Washington, DC: U.S. Department of Education, Office of Educational Research and Improvement, 1994.

[15] National Health Education Consortium. The relationship to learning: Healthy brain development. Principles and practices of student health. *School Health* 2:262-272, 1992.

[16] Kann, L.; Collins, J.L.; Pateman, B.C.; et al. The School Health Policies and Programs Study (SHPPS): Rationale for a nationwide status report on school health programs. *Journal of School Health* 65(8):291-294, 1995.

[17] Marx, E.; Wooley, S.F.; and Northrop, D., eds. *Health is Academic: A Guide to Coordinated School Health*. New York, NY: Teachers College Press, 1998.

[18] Kominski, R., and Adams, A. Educational Attainment in the United States: March 1993 and 1992. Washington, DC: U.S. Bureau of the Census, 1994.

Synergy of Teamwork

From Healthy People 2010
“Educational and Community-Based Programs”,
www.health.gov/healthypeople/Document/HTML/Volume1/07Ed.htm, p.1

“People working together can improve individual health and create healthier communities. Although more research is needed in community health improvement, clearly, the health of communities not only depends on the health of individuals but also on whether the physical and social aspects of communities enable people to live healthy lives.[1] Health and quality of life rely on many community systems and factors, not simply on a well-functioning health and medical care system. **Making changes within existing systems, such as the school system, can effectively and efficiently improve the health of a large segment of the community.**”

[1] Centers for Disease Control and Prevention (CDC). Planned Approach to Community Health: Guide for the Local Coordinator. Atlanta, GA: U.S. Department of Health and Human Services (HHS), Public Health Service (PHS), CDC, National Center for Chronic Disease Prevention and Health Promotion (NCCDPHP), 1995.

Determinants Of Health

From Healthy People 2010
“A Systematic Approach to Health Improvement”,
www.health.gov/healthypeople/Document/html/uih/uih_2.htm pp 11-12.

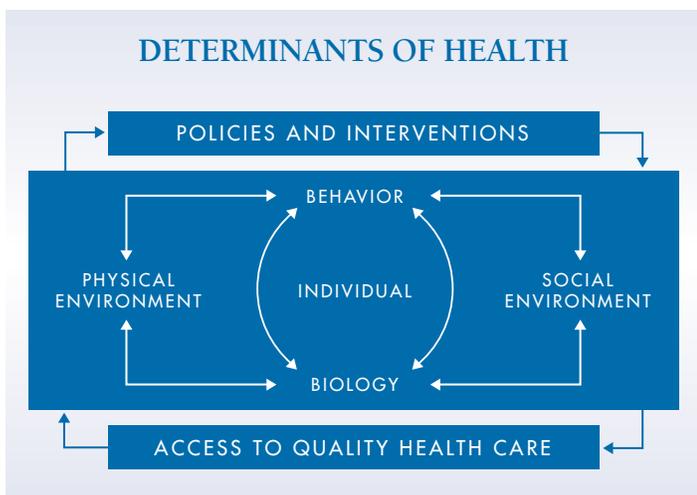
“Topics covered by the objectives in Healthy People 2010 reflect the array of critical influences that determine the health

Schools play a critical role in this model, especially by influencing individual behavior, and access to quality health care.

of individuals and communities. For example, individual behaviors and environmental factors are responsible for about 70 percent of all premature deaths in the United States. **Developing and implementing policies and preventive interventions that effectively address these determinants of health can reduce the burden of illness, enhance**

quality of life, and increase longevity. Individual *biology* and *behaviors* influence health through their interaction with each other and with the individual's *social* and *physical environments*. In addition, *policies and interventions* can improve health by targeting factors related to individuals and their environments, **including access to quality health care."**

Schools play a critical role in this model, especially by influencing individual behavior, and access to quality health care.



Reliability of Student Health Information

When the school relies on the parent or guardian for student information, consider the study by Dr. Harold K Simon, Assistant Professor of Pediatrics, Emory University School of Medicine. (*Archives of Pediatric & Adolescent Medicine*, 1997;151:654-656,647). The study found that only 40% of parents were able to state an appropriate dose for their child's medication, only 43% were able to administer the appropriate dose following labeled instructions, and 13% inaccurately measured the dose intended. Further, nine percent (9%) give unintentional overdoses, although most were not toxic.

There is a growing trend toward developing a national health record linking all health care providers into one patient database. (McCarthy R, *The Future Is Already Here, Business & Health*, March 2001, pp. 25 – 34) This will decrease redundant work but more importantly will ensure that all providers have access to a complete and current record. Schools could benefit by being a part of this national effort.

Summary Comment

Investing in school health programs is equivalent to investing in the health capital of this nation. Teaching and reinforcing healthy habits, compliance, self-sufficient and self-monitoring behavior during the child's most impressionable years will do more to prevent disease, prevent disease progression, and manage outcomes than any other conceivable endeavor.

This is perhaps stated best by Marcia Ringel, (*Business and Health*, December 1997, p 14). "For better or worse, patients have always controlled their own care. The challenge is to motivate behavioral change and teach effective self-management."

Critical medication administration issues have been gleaned from various healthcare sources and applied to the school health situation. The following two cases are real and representative of some of the many problems facing school health services on a daily basis.

CASE ONE: A student was maintained on seizure control medication, but was not well controlled. It was discovered that the dose had been adjusted upward three times by the physician, however the school had not been notified and was administering an insufficient dose.

CASE TWO: A student was not responding to his methylphenidate (Ritalin) for attention deficit disorder and eventually developed new symptoms. The school secretary was responsible for dispensing medications, and for three days had given the student methadone (a powerful narcotic analgesic with significant side effects) that was intended for another student, instead of methylphenidate. The other student no longer attended the school. At this school, medication was kept in an envelope with only the hand-written generic name (not the student's name) for identification.

The following should be addressed by school systems at the highest level:

- Adequate, licensed professional workforce with trained, supervised para-professional staff.
- Standardized policies and procedures throughout the entire system (district, county, state or nation).
- Standardized quality assessment and reporting.
- Implementing information technology designed to prevent errors and improve work efficiency/productivity.
- Facilitating the training of students to be responsible for their own health.
- Integrating the school health record with the students "universal" health record to improve medical information and decision making, and help prevent errors.
- Orienting all school staff to the importance of good health and medication compliance, training them to be considerate and supportive of student health requirements.
- Create, review, revise or eliminate legislation as necessary.

The Downward Spiral

By Philip E. Johnson, MS RPh FASHP

1 Stressed System

- Insufficient Staff
- Inaccurate/Incomplete Information
- Not Linked to National Health Record
- Inefficient Record Keeping
- Incomplete Data Base for Analysis

3 School Performance Deteriorates

- Test Scores
- Attendance
- Classroom Behavior

5 Disease Progresses

- Quality of Life/Mortality
- School Performance Deteriorates
- Student Absenteeism Increases
- Parent Work Absenteeism
- Healthcare Costs Increases

7 Adult Health Deteriorates

- Healthy Habits Never Established
- Disease Progression
- Low Productivity/Absenteeism
- Low Quality of Life
- Poor Lifestyle Example to Children

9 Less Money for Schools and "Society in General" to Spend on Positive Development Programs

2 Medication Errors & Non-Compliance

- Disease Progression
- Complacency and Bad Habits Reinforced
 - School Accidents Increase
 - Legal Jeopardy

4 School Staff Stressed

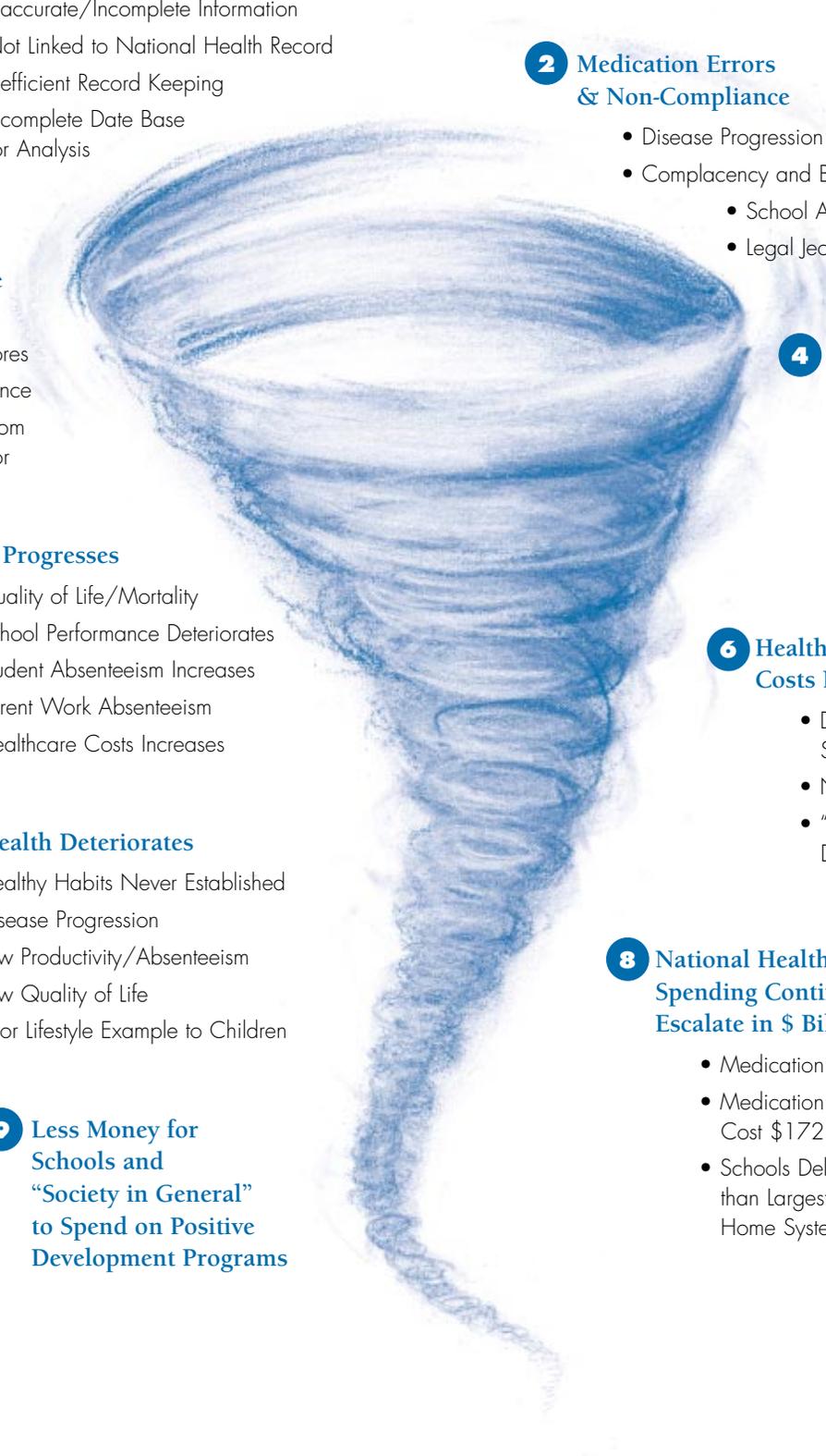
- Not Medically Trained
- Insufficient Resources
- Inconsistent Policies
- Inadequate Information
- Other Priorities

6 Healthcare Costs Increase

- Direct and Indirect School Costs
- National Healthcare Budget
- "National Health Capital" Depleted

8 National Healthcare Spending Continues to Escalate in \$ Billions

- Medication Errors #5 Killer in USA
- Medication Errors and Non-Compliance Cost \$172 Billion per Year in USA
- Schools Deliver Drugs to More Patients than Largest Hospital System or Nursing Home System



Teaching Children About Medicine

Informed students who are taught responsible behavior will be responsible patients who practice good health habits for life. Perhaps this is best summarized by the position statement issued by the United States Pharmacopeia (USP), the organization responsible for the chemical standards for all medicines, and for documenting adverse reactions to medications.



Ten Guiding Principles for Teaching Children and Adolescents About Medicines

These Principles are intended to encourage activities that will help children through adolescence become active participants in the process of using medicines to the best of their abilities. Recognizing that children of the same age vary in development, experience, and capabilities, these Principles do not specify children's ages.

1. Children, as users of medicines, have a right to appropriate information about their medicines that reflects the child's health status, capabilities, and culture.
2. Children want to know. Health care providers and health educators should communicate directly with children about their medicines.
3. Children's interest in medicines should be encouraged, and they should be taught how to ask questions of health care providers, parents, guardians, and other care givers about medicines and other therapies.
4. Children learn by example. The actions of parents/guardians and other caregivers should show children appropriate use of medicines.
5. Children, their parent/guardian, and their health care providers should negotiate the gradual transfer of responsibility for medicine use in ways that respect parental responsibilities and the health status and capabilities of the child.

6. Children's medicine education should take into account what children want to know about medicines as well as what health professionals think children should know.
7. Children should receive basic information about medicines and their proper use as a part of school health education.
8. Children's medicine education should include information about the general use and misuse of medicines, as well as about the specific medicines the child is using.
9. Children have a right to information that will enable them to avoid poisoning through the misuse of medicines.
10. Children asked to participate in clinical trials (after parent or guardian consent) have a right to receive appropriate information to promote their understanding before consent and participation.



Policies & Procedures

- ◆ Essential Components for Medication Policies and Procedures
- ◆ PRN Medication
- ◆ Non-Prescription, Over-the-Counter (OTC) Medication Policy
- ◆ Self-Administration

NASN Position Statements

- ◆ Alternative Medicine Use in the School Setting
- ◆ Research Medications in the School Setting
- ◆ Roles and Responsibilities for Administering Medication
- ◆ Medication Administration in the School Setting

Medication use and related policies should comply with local, state and federal regulations. Copies of regulations are available from several agencies. See Chapter 13 for regulations that were relevant at the time of publication.

- Florida Statutes Online (Online Sunshine) www.leg.state.fl.us
- Florida Department of Health www.doh.state.fl.us
- Florida Department of Education www.myfloridaeducation.com
- Florida Department of Business and Professional Regulation www.state.fl.us/dbpr
- US Department of Education www.ed.gov
- US Department of Health and Human Services www.hhs.gov
- Agency for Health Care Administration (AHCA) www.fdhc.state.fl.us

In addition, the following are available at the local level:

- Legal counsel for each local school board.
- County Health Department Medical Director
- Medical Consultant for the local school board

Good sources of position statements and recommendations include:

- National Association of School Nurses www.nasn.org
- American Academy of Pediatricians www.aap.org
- American Academy of Pediatrics www.schoolhealth.org
- State and National Education Associations
- State and National School Health Associations
- National School Board Association www.nsba.org
- American School Health Association www.ashaweb.org
- Florida Nurses Association www.floridanurse.org
- American Nurses Association www.ana.org

Summary of Best Practice Recommendations

(May vary by school district)

- All medication requires written parent/guardian permission
- For each medication, a parent/guardian consent must be signed each year
- All medication used in school requires authorization and monitoring
- Medication should be limited to those required during school hours
- Medication must be brought to school in an original container labeled by a pharmacist or prescriber
- A prescription is required for a student to carry and self-administer a specific medication
- Storage, security and disposal should follow all federal, state and local laws

Essential Components for Medication Policies and Procedures

A complete set of school medication policies should address the following issues.

1. Authorization required for prescription and non-prescription medication use.
 - Parent or guardian consent.
 - Require a physician order for prescription medication.
 - Use of non-prescription, over-the-counter (OTC) medication.
 - Acceptability of verbal or faxed orders.
 - Receiving the medication at school (eg. delivery by parent, or other consideration approved by the school nurse).
 - Documentation of medication received and disposed by school.
 - A parent/guardian consent form that authorizes the student to carry and self-administer medications (eg. inhalers).
 - School activities that are off campus (eg. a separate form can be developed for field trips).
 - Permission for the school to administer specified non-prescription medications (eg. a separate policy and form can be developed).
2. A Medication Profile completed by the parent/guardian, or physician's office. This will provide the school with critical practical information pertaining to medication administration, allergies, and the student's expected response.
3. A Medication Administration Record for each student.
4. A policy on how to detect, record and report a medication error, including notification of school authorities, and the parent guardian.
 - Definition of medication error.
 - Standardized rules for acceptable variance from scheduled administration time, (eg. within one hour of scheduled time unless it violates the requirement to give with food, on an empty stomach, or some other special requirement).
5. A policy for proper receipt, storage, transport, and disposal of medication and medication equipment, including documentation.
 - Delivery to school.
 - Receipt and documentation by school staff.
 - The medication is stored under locked control, yet accessible.
 - Accessing medication "after hours".
 - The medication is stored in such a way that it remains potent.
- Require witness for disposal of medications.
- The parent/guardian should bear some responsibility for directing what level of responsibility the student should have, such as self-administration.
- Medication must be provided in original prescription containers, which most pharmacists will prepare in duplicate (one for school, and one for home) at no additional charge, upon request. The label must comply with state laws and will contain as a minimum the student's name, prescriber, medication name/dose/directions, date of prescription, and additional comments pertinent to storage, administration, or stability (eg. protect from light, shake well, don't use after mm/dd/yy).
6. Facilitating (assisting) with medication administration, including student self-administration and rules for carrying a medication.
 - The student receives their medication following the "five rights": Right Student, Right Medication, Right Time, Right Dose, and Right Route.
 - Most states, including Florida have laws which permit carrying inhalers for asthma.
 - Many medications are now available as a topical patch designed to remain in place for 1 to 3 days. Technically, patch therapy can be considered as self-administered medication which is carried with the student. Policy should address this form of therapy, which may include nicotine patches to facilitate smoking cessation.
7. School staff orientation and training, including:
 - Who is authorized to administer medication.
 - Who requires CPR and First Aid training.
 - Awareness of medication related policies and procedures, including delivery, storage, dispensing, documentation, and disposal.
 - Medication effects and side effects.
 - Awareness of available resources.
 - Emergency procedures.
 - Training pertaining to the importance of confidentiality, medication compliance, and sensitivity to the dignity of the student when receiving medication.
8. Policy addressing the student's and parent/guardian's responsibilities.
 - Authorization is signed.
 - Special food supplements, equipment and supplies are provided.
 - Official authorization to carry medication allowed under Florida statutes (eg. inhaler) and self-administer, that may include an authorization card carried by the student.
 - Policies pertaining to accessing stored medication.
 - Requirements to report medication self-administration to the school.

- Requirements to report self monitoring that might be required by the school. This could include such things as blood glucose levels, pulse, or respiration rate.
 - Requirements to report changes in the medication prescription.
 - Non-prescription items that the student requires to facilitate medication administration (eg. food, beverage, equipment).
9. Responsibility of school nurse to contact outside health care providers such as the physician or pharmacist.
 10. Off-site use of medication, such as field trips and bus travel.

Prescription Medication

Medication and medical devices (eg. insulin pumps) that are controlled by the U.S. Food and Drug Administration (FDA) often bear a “legend” that reads “Federal law prohibits dispensing without a prescription.” Florida statutes recognize prescribers as physicians, dentists, and to a limited degree pharmacists, nurse practitioners, and physician assistants. Florida law also accepts prescriptions written by a licensed practitioner in another state, and/or filled by a licensed pharmacy in another state, provided they have an “established patient – practitioner relationship.” Prescriptions filled by a licensed pharmacy are required to be in compliance with all prescribing criteria and restrictions as set forth by the Florida Board of Pharmacy.

P R N Medication

What is a P R N medication?

Pro Re Nata, is a Latin term that means “as circumstances may require.” Prescription medication may be prescribed for certain circumstances requiring patient judgement, such as “PRN for shortness of breath,” or “PRN for headache.” Non-prescription medications are by their nature given in circumstances where evaluation and assessment of need is required. When allowed in a school setting strict parameters for medical necessity should be established. This may include:

- A prescription by a licensed physician.
- Guidelines provided in the form of a school protocol, or authorizing the judgement of a registered nurse.
- Child specific training by the school nurse may be necessary.

For critical medications used in an emergency (eg. for seizure control), very specific instructions should be prescribed (eg. administer if seizure has lasted for more than 5 minutes, or, use immediately upon start of seizure). In the case of seizure medication, the first dose should be administered in a controlled medical environment, not at school, and the school should be informed and have on record what the student’s response has been.

Should medication be kept for use in emergencies?

Emergency medication is intended to either avoid additional medical care, or to stabilize the patient until additional care can be arranged. The classic example is the use of epinephrine (Epi Pen®) for a life threatening allergic reaction to an insect bite. Another emergency medication is glucagon to provide instant blood glucose in the event of hypoglycemic shock. Glucagon does not come in a pre-prepared syringe. Most schools have policies that address the use of emergency medication, requiring a physician prescription and the student must provide their own supply. They should not be used for other students for which they are not prescribed.

By Florida law, emergency medication should not be maintained by the school as school owned stock.

Non-Prescription, Over-the-Counter (OTC) Medication Policy

What is a non-prescription medication?

A non-prescription medication is any chemical which can alter or enhance a bodily function, and does not require a prescription from a licensed healthcare professional (physician, dentist, etc.). If a non-prescription medication is prescribed by a licensed prescriber, it is treated as a prescription medication.

The authors recommend that schools require a prescription for “non-prescription” medication.

The quality, potency, and purity of medication in the United States is regulated by the Food and Drug Administration (FDA), and is clearly indicated on the product label. In some cases, such as herbal preparations or nutraceuticals, the FDA *does not* regulate the content, potency or purity of the product. Some of these preparations are very potent, and contain active ingredients not listed on the label. For this reason, some schools have developed policies that allow only FDA approved (OTC) medication to be used while in school.

Should non-prescription (OTC) medication be allowed at all?

Unrestricted use of non-prescription medication can potentially lead to the wide spread use of medication for non-medical purposes, including performance enhancement, weight management, or enjoyment. It can also lead to the generally accepted use of “substances,” a complacent atmosphere that can escalate into illegal drug use. However, prohibiting the use of non-prescription medication also presents problems. Very conservative interpretation of restrictive policy could prevent a student from using ophthalmic solutions necessary for contact lenses, or prevent a student from utilizing an anti-histamine (that they routinely use at home) during allergy season, or applying sun tan lotion containing a sun screen.

Under what circumstances should non-prescription (OTC) medication be used?

Allowing non-prescription medication use can enable a student to remain in school by treating symptoms. It can also help prevent medical problems such as using a sun screen to prevent skin problems if the student is susceptible to cancer or has photo-sensitivity as the result of other medication. However, these situations must be clearly defined and authorized by school authorities.

- A written request from the parent/guardian stating the circumstances and guidelines for use.
- The medication must be delivered to the school by the parent/guardian.
- Policy to address which products, if any can be carried with the student and self-administered.
- Procedure to determine if certain products, such as contact lens solution and sun screens are exempt from medication policy.
- Policy to determine if non-FDA approved products will be allowed, including herbal and nutraceutical products.
- The school nurse must approve the use of non-prescription medication and monitor and document its use.

Under what circumstances should school staff be empowered to dispense non-prescription (OTC) medication from school stock?

To the best of the author's knowledge, no state currently authorizes dispensing non-prescription medication from stock in their statutes. However, most states do not address this issue, and some schools have developed policies for certain situations, along with standing orders (protocols) that are written or reviewed by a physician associated with the school. It is generally permissible, under approved protocol, for the school nurse to stock and apply calamine lotion to an allergic rash, bacitracin ointment or cream to a wound or cut, and Orajel® to a painful tooth or mouth injury.

Is there a clear consensus for non-prescription (OTC) medication policy?

The use of non-prescription medication is possibly the most controversial of all school related medication issues. The school district must first examine applicable state law and determine what is permissible. Policy should be developed that addresses:

1. Who can authorize the use of non-prescriptions (OTC) medication (eg. physician, parent/guardian by written request).
2. How medication use is documented (eg. Student Medication Administration Record/SMAR).
3. Who provides the non-prescription medication and how it is delivered to the school (eg. student/family).
4. Where the medication is stored during school.

5. How are unused supplies managed (eg. picked up by parent/guardian).

Summary of recommendations for non-prescription medication.

At the present time Florida does not have specific statutes regulating the use of non-prescription medication. After considering published "best practice" standards for schools, school legal liability, and the best medical interest of the student the following policies are recommended by the authors:

1. Require that all non-prescription (OTC) medication be approved by the US-FDA.
2. Florida law requires a parent/guardian consent.
3. Require a prescription for "non-prescription" medications used in school.
4. Exempt some non-medicated preparations (eg. non-medicated ophthalmic solutions for contact lens, sunscreens for photosensitive skin) from this policy, and allow students with written parent/guardian permission to carry and use such products when appropriate.
5. Student provided medication that is stored by the school will be discarded when it is no longer needed, after parent/guardian notification.

Self-Administration

School policy should address medication self-administration whether the medication is prescription or non-prescription/OTC. A student specific individual health care plan (IHCP) should be developed by the school nurse after input from the student, parent/guardian, and/or health care provider. This plan will determine the circumstances for use and how medication use will be monitored and documented when it is self-administered.

Under what circumstances can the student self-administer?

It is the goal of school health services to promote independent, responsible student health behavior, while protecting the school from legal jeopardy. Many students are responsible and capable of self-administering medication, sometimes with assistance, and this encourages a sense of responsibility. Some states require a physician prescription that authorizes a student to self-administer, however that poses a barrier to receiving essential medication. A better method may be to obtain written parent/guardian permission. The school nurse should then evaluate the student using a checklist designed to document that the student understands their medication, proper dosing, how and when to administer, how to monitor effectiveness, and how to comply with other school policy pertaining to reporting use and security. This practice also reinforces the importance of good medication administration technique, along with establishing a good relationship between the student, school staff, parents, and health care provider.

Under what circumstances can students carry their own supply?

Florida Statutes specifically address the use of asthma inhalers by student patients. School policy should address if a student is allowed to carry medication that is approved for self administration, including consideration for on the school campus, off campus trips (eg. field trips, athletic events, music events), and on school transportation (eg. bus).

Permission to allow a student to carry medication should require written parent/guardian permission, and should be for life threatening situations, otherwise the medication should be kept in the school health clinic or as otherwise determined by school policy. It is recommended that the school consider providing students with a permission/authorization card that documents permission and circumstances for using a specified medication for a specified timeframe. This card can also serve as a record for documenting use.

Alternative Medicine Use in the School Setting

Alternative medicines are becoming very popular, and are frequently used without the knowledge of a healthcare professional. There are many alternative medicine information sources and websites, but you must be cautious because many (perhaps most) of the claims are not scientifically tested. Alternative medicines are not rigorously controlled by the U.S. Food and Drug Administration (FDA) therefore they are not required to follow standards for purity, potency, or accurate labeling. Numerous published independent studies have demonstrated that many herbal remedies contain very potent levels of herbal medicines. The preparations may also include traditional medications not listed on the label, added to increase the potency of the preparation, thus causing a potentially dangerous situation.

Schools should be very cautious about allowing students to use alternative medicine. The authors recommend the following:

1. The school should treat alternative medicines, including herbal remedies as if they are a prescription medication. Then, a physician prescription will be required before they can be used.
2. If approved for use, the school should be provided information on the product, including the proper dose, administration techniques, storage conditions, and side effects.

National Association of School Nurses Position Statement: Alternative Medicine Use in the School Setting, Adopted June 2001

<http://www.nasn.org/positions/altermedi.htm>

History

Alternative and complementary medicine includes products or practices not currently used, accepted, or available in conventional medicine. *Alternative* medicine is any practice that is available to the public but not integrated into standard medical practice. *Complementary* implies that the practice could be applied along with conventional medical care.

Herbals (also called botanicals, dietary or nutritional supplements, or phytomedicinals) are products that can be purchased without a prescription. These products have been unregulated by the U.S. Food and Drug Administration (FDA) until recently. Current regulations apply only to product label information. Consumers may believe that a product marketed as “all natural” or “not a drug” is a treatment with no risk of side effects or less costly than a prescription drug. The Dietary Supplement and Health Education Act (DSHEA) of 1994 addresses “supplements,” including herbs, vitamins, and minerals. DSHEA does not require proof of product safety, purity, or bioavailability of the active ingredients. Manufacturers’ labels may state effects on body functions but cannot make claims about treatment for any disease or condition. (FDA approval is required for claims on treating a condition.)

The U.S. Pharmacopeia (USP) sets standards for product quality and label information by verifying that the declared ingredients are actually present in the product and by inspecting the manufacturing processes. However, the USP does not regulate claims made for product use. Manufacturers’ participation in USP review is voluntary.

In addition to the product regulation issues, there are no standardized dosing guidelines, particularly for children’s safe use of herbal products.

Description of Issue

Parents request that school staff administer herbs and other alternative medicines (with or without a physician’s statement: 1) in accordance with the school’s policy on over-the-counter medicines, or 2) apart from the policy by suggesting that the product is a food and not subject to any restriction. Prior to administration of herbal or other products, (with or without a health care provider’s legal order), the school nurse should consider: 1) the state’s nursing practice act regulations, 2) written school policies on the matter, and 3) whether there is a significant risk to student safety by administering a product that lacks published data in standard references about its safety, efficacy, and dosages for children.

Rationale

With heightened awareness of regulations governing complementary and alternative medicine, school districts and school nurses are advised to consult or investigate risk management

principles and state laws to guide the development of policies and practices.

Health care professionals should not administer to children any substance for whose safety is not established. At present, herbal products are not fully regulated and may be sold unless the FDA can prove there is a danger. Manufacturers can make claims for the effects of these products without independent research. The bioavailability (the amount absorbed from a dose) of a specific dose of an herbal product cannot be assured across manufacturers nor from batch to batch unless the product is marked USP or NF (National Formulary) indicating voluntary compliance with standards of identity, strength, quality, and purity.

Conclusion

It is the position of the National Association of School Nurses that school districts need written policies and procedures that focus on student safety and are consistent with state laws, nursing practice standards, established safe practices, and scientific information. Requests to administer or permit a student to carry a substance for relief of a condition or symptom or prevention of a health-related concern should be regarded as a medication request. The school nurse should assess each request for administration or student self-administration of herbal or alternative medicine and consider the current research.

Policies should not permit students to carry nor permit a school nurse or other staff to administer any product that could be considered a drug, including “natural remedies,” herbs, vitamins, dietary supplements, homeopathic medicines, or medications from other countries, without the following: 1) a written order from a health care provider authorized to prescribe in that state and that includes the condition for which the product is being used, 2) a written request from the parent/guardian, 3) verification that the product and requested dosage are safe for the student (considering age, body weight, and condition), and 4) reasonable information about therapeutic and untoward effects and interactions. Policies regarding administration or carrying of any medication or product should be applied consistently with all students. Policies should not prohibit parents/guardians from administering the product at school themselves. The National Association of School Nurses recommends that an advisory council or committee, whose participants include local pediatric health care professionals, pharmacists, and persons who are knowledgeable about current research on complementary and alternative medicines, be formed at the local level. Such an advisory group can assist in drafting policies that focus on student safety and scientific knowledge.

The use of herbal and other alternative or complementary medicines represents a health teaching opportunity and responsibility. Consumers should look for the USP or NF symbol for product consistency and quality, an expiration date and batch number on the container, and how to contact the manufacturer for information or to report a problem.

References/Resources

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Research Medications in the School Setting

Students may be participating in clinical trials that include experimental medication and medication used for something other than an FDA approved indication, sometimes referred to as “off-label” use. All laws which pertain to prescription medication will apply to research medication. In addition the school should require that the student or health care provider supply information on the medication, including how the medication works, side effects, allergic potential, proper dosage, administration schedule, administration considerations, storage considerations, and the intended benefit to the patient.

National Association of School Nurses Position Statement: Research Medication in the School Setting, Adopted June 2001

<http://www.nasn.org/positions>

History

Medications prescribed for children that do not fall within the United States Food and Drug Administration (FDA) guidelines for pediatric use and/or dosing may fall into two categories: off-label medications and experimental medications.

For children, the absence of testing and labeling poses risks, such as adverse reactions, ineffective treatment, and restricted access to some important medications. The Food and Drug Administration Modernization Act (FDAMA) of 1997 directed the FDA to identify drugs that should be required to have pediatric labeling, offered incentives to manufacturers to study new and existing products for use in children, and authorized the FDA to require manufacturers to conduct certain studies.

Description of Issue

Off-label medications are those FDA approved medications prescribed for non-approved indications in children. It is, in other words, the unapproved use of a legal medication. Examples include medications that are prescribed in doses or routes outside the FDA guidelines, medications known to be safe in adults and prescribed without long-term studies demonstrating safety in the pediatric population, or medications approved to treat one type of medical condition, but being prescribed for a different medical condition.

Three-fourths of the drugs prescribed for children have not been tested in children. In these instances, practitioners rely on a variety of other sources when products have not been tested for safety in children and effectiveness for the intended use. The professional standard for off-label prescription is that the unapproved use of a legal drug must be based on reasonable medical evidence with the same judgment as exercised in medical practice in general.

Pediatric experimental, or investigational drugs are those medications currently involved in clinical trials. These medications are undergoing formal study to determine the efficacy and safety for pediatric dosing, but they do not have FDA approval. An example of an experimental medication would be the new cancer medication taken by a student participating in a clinical trial. A research organization is responsible for the protocols for administration and monitoring of these medications.

School nurses receive requests from parents and health care practitioners to administer off-label and new or experimental medications during school hours. School nurses are asked to administer or observe children for response to common medications, e.g., albuterol inhalation solution, that lack published pediatric dosing, to new medications or to those using prescribers' anecdotal reports, without published information on indications or long-term effects. Courts have upheld the school nurse's refusal to administer a prescribed medication in a dose exceeding the amount documented in a standard reference such as the Physician's Desk Reference.

Rationale

School nurses support children's need for safe and effective drugs. School nurses and other health care providers need age-appropriate drug information obtained through clinical trials of currently available and experimental products. Clinical trials are designed to protect participant safety and rights while gathering important information about a product's safe and effective use. Responsible research strikes a balance between burden and benefit.

Conclusion

It is the position of the National Association of School Nurses that school districts develop policies and procedures to address staff handling and administration of experimental or off-label medications, if medically necessary during school hours, with student safety as the primary consideration. The school nurse should have all necessary information about the product to support safe administration at school.

Requests to administer experimental medications at school should be evaluated on a case-by-case basis by the school nurse and the prescribing health care provider. For clinical trial medications, the request to administer medication at school should be accompanied by a copy of the written protocol or study summary from the research organization and/or a copy of the detailed consent form signed by the parent/guardian which describes the study (including the potential benefits and risks), the signs and symptoms of adverse reactions to be reported, and the name and telephone numbers of the investigator or research team.

For off-label use medications, the school nurse should have resources with adequate information to support the safe administration at school, i.e., published anecdotal reports of use in children for the indication the prescriber names, reports from the manufacturer or a reliable pharmacy or college of pharmacy, current medical journals, or information from a pediatric medical or mental health facility.

References/Resources:

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National Association of School Nurses Position Statement: Medication Administration in the School Setting, Adopted 1993 Revised: September 1997

<http://www.nasn.org/positions/medication.htm>

History

The safe and effective use of medications for the treatment of illness and disability has enabled many children to attend school. The school nurse has administered medications as necessary during the school day. The use of medications by students at school has increased dramatically over the last few years.

Description of Issue

Major issues confronting the school nurse regarding the administration of medications include:

1. safe administration of the medications
2. adherence to safe nursing practice, state nurse practice acts, and state laws and regulations

3. ongoing monitoring of therapeutic benefits and side effects
4. appropriate communication with the student, family, school staff, and health care providers
5. proper documentation
6. wide-spread emergence of “natural” and homeopathic remedies for self-limiting conditions

8. Medications are stored in a locked cabinet.

9. Procedures should be in place for receiving, administration, and accountability for all medications that are regulated by the Federal Narcotics Act.

School nurses may monitor the self-administration of certain medications (i.e. insulin, epinephrine, inhalers) using an Individual Health Care Plan. Written direction for student self administration of medications must be obtained from the licensed health care provider and written permission from the parent/guardian. Guidelines must be developed for evaluation and monitoring by the school nurse. Self-administration must be permissible under state laws and school policy.

Rationale

School nurses provide direct nursing care to many students with illnesses or disabilities that can be cured or controlled with medication. **The administration of medication should be delegated to assistive personnel only in those states where it is in compliance with the law.** It is assumed that medication be administered during the school day only when the interval between doses requires administration in school or the medication is a “when necessary” order. The school nurse, because of educational background and knowledge, is uniquely qualified to monitor and administer medication. While it is recognized that many families have chosen natural and homeopathic remedies over traditional treatment, it is recommended that the school nurse require that the use of these remedies follow all school policies for medication administration.

Conclusion

It is the position of the National Association of School Nurses that school nurses administer medication safely and effectively under the following guidelines:

1. Adherence to school policies, school nurse standards of practice, state nurse practice acts and state laws.
2. The medication is in the original container if over-the-counter (OTC) or in a properly labeled prescription container, subject to Board of Pharmacy regulations. In some states, a licensed healthcare provider may package and label the medication.
3. Information on the container must include the name of the drug, dosage, route of administration, and the time interval of dose. Prescriptions must include the student’s name, and the name of the prescribing licensed healthcare provider.
4. The parent/guardian must request in writing that the medication be given at school.
5. The school nurse, based on nursing assessment, determines that the medication should be given at school.
6. The administration of medication in no way violates nursing protocols or standing orders.
7. The school nurse is aware of and has access to current reliable information regarding the safe use of the medication including side effects and toxicity, possible drug interactions, and expected outcomes.

GUIDELINES ON MEDICATION PROCEDURES A SUMMARY

Adapted from The Medically Fragile Child in the School Setting 2nd Ed. (1997).

Appendix D: Guidance for Staff Roles in Providing Care, Washington DC: American Federation of Teachers

The National Education Association, the American Federation of Teachers, the Council for Exceptional Children, and the National Association of School Nurses jointly published a document entitled *Guidelines for the Delineation of Roles and Responsibilities for the Safe Delivery of Health in the Educational Setting* in 1990. This same chart was brought forward into the 1997 publication cited at the top of the page. While these guidelines cover a wide range of activities and school employees, the general policy regarding medication may be summarized as follows:

School employees other than a registered nurse or a health assistant are prohibited from administering medication except in emergencies that require a single dose injection of epinephrine or medication inhalation for a life threatening condition. Even in these emergencies, other school employees may administer medication only if they have been properly trained and if a registered nurse or health assistant is unavailable.

The guidelines define "emergency" as "a serious situation that arises suddenly and threatens the life or welfare of a person: a crisis."

Guidelines for the Delineation of Roles and Responsibilities For the Safe Delivery of Specialized Health Care In The Educational Setting*

Procedure	Prescriber Order Required	Registered Nurse (RN)	Licensed Practical Nurse (LPN)	Certified Teaching Personnel	Related Services Personnel	Para professionals ¹	Others ²
4.0 Medications - Medications may be given by LPN's and Health Aides only where the Nurse Practice Act of the individual state allows such practice, and under the specific guidelines of that nurse practice act.							
Oral	·	A/O	S/O	X	X	S/HA	X
4.2 Injection	·	A/O	S/O	X	X	X	X
4.3 Epi Pen® Allergy Kit	·	A/O	S/O	EM	EM	EM	EM
4.4 Inhalation	·	A/O	S/O	EM	EM	EM/HA	EM
4.5 Rectal	·	A/O	S/O	X	X	EM/HA	X
4.6 Bladder Installation	·	A/O	S/O	X	X	X	X
4.7 Eye/Ear Drops	·	A/O	S/O	X	X	S/HA	X

Definitions of Symbols

A	Qualified to perform task, not in conflict with professional standards	X	Should not perform
S	Qualified to perform task with RN supervision and in-service education	O	Person who should be designated to perform task
EM	In emergencies, if properly trained, and if designated professional is not available		

1. Paraprofessionals include teacher aides, health aides (HA), non-certified teaching personnel.

2. Others include secretaries, bus drivers, cafeteria workers, custodians

***DELINEATION OF RESPONSIBILITIES MUST ADHERE TO EACH STATE NURSING PRACTICE ACT.**



Sample Parental Permission, Authorization & Consent Forms

- ◆ Key Components
- ◆ Medication Storage and Safety Tips
- ◆ Parent/Guardian Medication Consent Forms
- ◆ Parent/Guardian Responsibility Guidelines
- ◆ Physician Permission/Authorization Forms

This chapter provides samples of various authorization/permission forms for students that need to take medication during school. They are examples and may not meet the requirements established by your school.

Key components of authorization forms include the following:

- Physician permission/authorization documentation.
- Parent/guardian permission documentation.
- Intended use of the medication.
- Medication name, dose, administration directions, special handling or storage considerations.
- Side effects of the medication.
- Parent/guardian delivery of medication to school and responsibility for renewing supplies.
- Student medication record to document receipt by the school.
- Disposal of medication if not claimed by parent/guardian after notification.
- All requirements under sections 232.46, and 232.465, Florida Statutes.

Following are samples of:

1. Medication Storage and Safety Tips

The school should consider providing this statement by the Council of Family Health to parents/guardians for use at home.

2. Parent/Guardian Medication Consent Forms

These forms are designed to obtain legal authorization from the parent or guardian for the school to store and administer medication, and/or to allow the student to carry and self-administer their own medication. These forms may also be designed to gather information from the parent or guardian that will provide practical information to assist with the administration of the medication and the student's usual response to the medication.

This form may also supplement or substitute for a requirement that the school maintain an individual student medication profile.

3. Parent/Guardian Responsibility Guidelines

4. Physician Permission/Authorization Forms

COUNCIL ON FAMILY HEALTH
MEDICATION STORAGE AND SAFETY TIPS
(Provided for Parent Information)

1. Clean out your medicine cabinet at least once a year. Check expiration dates on medicines before each use. Throw away:

- All medicines that are out of date.
- Any medicine your doctor tells you to stop taking.
- Any medicine that has a noticeable change in color or smell.
- Any medicine for which the label or package instructions are missing or cannot be read.

2. Dispose of medicines and dietary supplements safely.

Before putting a medicine or supplement container in the trash, flush the contents in the toilet or wash them down the sink.

3. Store medicines in a cool, dry place.

Medicines should not be stored in places where heat and moisture can affect their potency. This is especially important during the summer and when traveling. Only store medicines in the refrigerator if the label tells you to do so.

4. Always store medicines and dietary supplements out of the sight and reach of children.

Organize medicines and supplements for convenient and safe access, but remember that children are curious. Children who crawl and climb can easily reach medicines, vitamins or dietary supplements on countertops or shelves. Remember to place any handbags or briefcases containing such products out of the sight **and** reach of children.

5. Be sure all medicines have child-resistant caps.

People who have difficulty opening these caps on prescription drugs can ask their pharmacist for regular closures. Many nonprescription drugs come in a size which has caps that can be used in households without young children. However, if young children are present, remember to put medicines out of their sight and reach and to replace child-resistant caps after use.

6. Teach children to respect medicines.

Avoid taking medicines in front of young children and **never** tell a child that the medicine you give them is candy or tastes like candy.

7. Read the label.

Always follow the usage and dosing directions on the medicine label and pay attention to warnings. If you have questions, ask your doctor, pharmacist or other health care professional.

8. Take only your own prescription medicines.

Prescription medicines should not be shared. No matter how well a medicine works for you, no one medicine is right for everyone. Only a doctor can judge whether a prescription medication is safe and effective for another person. Also, remember to keep all medicines in their original container to avoid taking the wrong thing.

9. Keep the phone numbers for poison control and your doctors near the telephone.

Remember to discuss with babysitters these telephone numbers. If a caregiver is to give medicine to your child, make sure you write down instructions (when and how much medicine is to be given). The new nationwide poison control number is (800) 222-1222.

10. Taking medicines on schedule is an important part of the overall effect of many medications.

If you lead an active life, talk to your doctor about simplifying your medicine schedule. When traveling, carry medicines with you; do not pack them in checked luggage. Always have a day's supply of medicine with you when you're out and about. Remember, when traveling make sure to store your medicines in a cool, dry place. Do not leave any medicine in the trunk or glove box of a car.

Ask your doctor or pharmacist how you should adjust your medication schedule to account for changes in time zone, routine or diet.

SAMPLE PARENT/GUARDIAN MEDICATION PERMISSION FORM

Page 1 of 2

Parent or Guardian: If your child requires medication during the school day the following rules must be observed:

1. You must sign this document as evidence of your consent to allow your child to use medication, and for the school to follow their written policy.
2. You must complete the following medication profile for your child.
3. You must promptly notify the school of any changes in medication.
4. All medication must be stored and administered according to school policy.
5. All medication must be in a properly labeled container, either from a pharmacy (prescription), or from the manufacturer of the medication. Ask your pharmacist for a duplicate prescription container for use at school.

Consent: As legal parent or guardian, I hereby authorize:

(child's name) _____ to take the medication that I will provide, and that is listed in the following profile, and further authorize the school to store these medication according to school policies, and assist with administration of the medication as directed. I further agree to inform the school of any changes in the medication, including changes in when the medication is taken, change in the dose, new or different medication, a reaction to the medication, or discontinuation of medication. I further understand that this consent applies to all medication, whether prescribed by a physician, or purchased over the counter without a prescription. I understand that this consent applies for this school year only, and next year I am required to sign another consent form.

Your Child's Full Name _____

List the diseases or conditions being treated: _____

List your child's allergies: _____

How long will your child need this medication? _____

Who usually prepares and gives the medication at home? _____

How does your child prefer to take medication? (For example, with water, in a cup, sitting down, by themselves, with help.) _____

Physician Name: _____ Phone: _____

Pharmacy Name: _____ Phone: _____

SAMPLE PARENT/GUARDIAN MEDICATION PERMISSION FORM

Page 2 of 2

List each medication your child is required to take at school.

Medication must be in a properly labeled container prepared by a pharmacist (a prescription), or the manufacturer (non-prescription eye drops). The container must contain the student's name, medication name, dose of the medication, and when to take the medication. Ask your pharmacist for a duplicate prescription container at no extra charge for taking the medication to school.

Name of Medication	When Should the Medication be Taken? (Time of Day, or, Needed for _____)	Dose of Medication? (One Tablet, 2 Puffs, 1 Teaspoonful, 3 Drops, etc.)	How Should the Medication be Given? (Swallow, Inhale in Mouth, Drops in Ear, With Food, With a FULL Glass of Water, etc.)	Does Student Administer this Medication Themselves? (Yes/No)
				<input type="checkbox"/> yes <input type="checkbox"/> no
				<input type="checkbox"/> yes <input type="checkbox"/> no
				<input type="checkbox"/> yes <input type="checkbox"/> no

List any medications that must be refrigerated: _____

Has your child ever had a problem with any of the medication listed?
If so, which medication and what kind of problems?

Is there anything else you would like us to know about your child and their medication?

Thank You.

Parent or Guardian Signature: _____ Date: _____

Print Your Name: _____ Your Phone: _____

Your Address: _____

SAMPLE GUIDELINES FOR ADMINISTRATION OF MEDICATION IN SCHOOL

Page 2 of 2

A student may have an illness that does not prevent his/her attending school but which requires medication for relief or cure. **If possible, such medication should be given by the parents at home. The medication may be taken at school only if failure to take it could jeopardize the student's health.**

The following rules must be followed:

1. The parent or guardian must provide written permission on the form supplied by the school (MIS 398) for the principal or his designee to assist in the administration of each prescribed medication. An explanation of the necessity for the prescribed medication to be provided during the school day, including when the student is away from school property on official school business, must be included on MIS 298 Parent Permission for Medication.
2. If the physician or dentist orders a nonprescription medication such as aspirin or cough medicine, it will be necessary for the physician or dentist to provide a written note to be brought to the school. The container of nonprescription medication must be labeled with the student's name and directions concerning dosage. MIS 398 must be completed by the parent as outlined above. **No over-the-counter (nonprescription) medications will be given without a written statement from the physician or dentist.**
3. The medication must be received in school and stored in its original container, labeled with the student's name, name of the drug, directions concerning dosage, time of day to be taken, physician's name, and date of prescription. The parent may ask the pharmacist for an extra labeled container when buying the drug.
4. When medication is not in use, it shall be stored in its original container in a secure fashion under lock and key in a location designated by the principal.
5. The student should be responsible for coming to the clinic at the appropriate time for the medication.
6. School personnel should be informed of any side effects or complications which may result from the medication.
7. If a student moves or is reassigned to a different school, transportation of medications from one site to another is the responsibility of the parent/guardian.

SAMPLE MEDICATION PROTOCOL AT SCHOOL PARENT RESPONSIBILITIES

Prescription Medication:

1. An Authorization for Administration of Prescription Medication form must be filled out by the physician, and signed by the parent.
2. A separate authorization form must be filled out for **EACH** medication administered.
3. Changes in medication require a **new** authorization form signed by the physician and parent.
4. Medication must be in the original pharmacy-labeled bottle.
5. No more than a 30-day supply of medication may be accepted.
6. A responsible adult must deliver and pick-up the medications in the school clinic.
7. Communicate any medications changes directly to clinic staff.
8. If your child is authorized to receive an early morning medication at school, do not give this dose at home.
9. When medication is discontinued or school year ends, pick-up all unused medication within one week. Unclaimed medications will be destroyed.

Non-Prescription Medication:

1. An Authorization for Administration of Non-Prescription Medication form must be filled out by the parent.
2. A separate authorization form must be filled out for **EACH** medication administered.
3. Non-prescription medication must be in the original bottle with the manufacturer's label.
4. When medication is discontinued or school year ends, pick-up all unused medication within one week. Unclaimed medications will be destroyed.

SAMPLE
SCHOOL HEALTH SERVICES
PARENT/GUARDIAN CONSENT AND RELEASE

School Year _____

I, the undersigned, _____, have enrolled _____
Parent/Guardian Student's Name

At _____ . It is necessary for my child to have a special treatment/procedure
Name Of School

Performed during school hours. The treatment/procedure is _____

My permission is granted for personnel of this school and any school within the District to which my student may transfer during the school year, including summer school, to carry out the procedure identified above. I understand that a physician's order for this treatment/procedure is necessary and is on file at the school.

I specifically request that this treatment/procedure be administered by members of the school staff. I understand that these persons may not be trained medical personnel. I release the School Board any of its employees from all claims, damages, actions, cases of action or suits at law or in equity, of whatsoever nature against the School Board and any of its employees for administering said treatment/procedure.

I also understand that if there is special equipment needed to perform this treatment/procedure, it will be maintained by me, delivered to the school in proper order, and that school personnel will assume no responsibility for the proper maintenance or delivery of the special equipment necessary for this treatment/procedure.

Equipment to be supplied by parent:

Person with Primary Responsibility
for procedure:

Secondary Responsibility:

STATE OF FLORIDA, COUNTY
OF _____

SWORN TO AND SUBSCRIBED
BEFORE ME ON THIS

_____ OF _____, _____
Day Month Year

Signature of Notary

(SEAL)

Personally Know _____ or Produced
Identification _____ (Check One)
Type of ID Produced _____

In the event that these persons are not
Available to perform the procedure, the
Parent will be notified and will be
responsible for the procedure during
the school day.

Signature Of Parent/Guardian

Address

Date

Emergency telephone numbers where parent/guardian can be reached during the school day:

THIS FORM IS VOID IF ALTERED IN ANY WAY

INSTRUCTIONS: Each of the four sections must be completed by the appropriate person as follows: Parts I and III by Parent/Guardian, Part II and IV by Physician. Please return the completed form to the school health room/office.

I. STUDENT INFORMATION (To Be Completed By Parent/Guardian).

Student's Name (Last, First, Middle)		Birth Date	Medicaid #	Grade/Homeroom Teacher
Parent/Guardian		Address		
Home Phone	Work Phone	Other Phone (Cellular, Beeper, etc.)		

II. TREATMENT PLAN (To Be completed By Physician). Please complete all spaces.

Diagnosis: Insulin Dependent Diabetes Mellitus	Procedure: Blood Glucose Monitoring by finger stick.
This student is both capable and responsible for self-testing blood glucose: <input type="checkbox"/> Yes <input type="checkbox"/> No	Time to be tested at school: Before lunch _____ Symptoms of High/Low Sugar _____ Other _____

Action Plan for Glucose Levels: (Date, time and blood glucose levels to be recorded on log)

Below 40:	Act immediately to give emergency glucose source that has been provided by parent. DO NOT LEAVE STUDENT ALONE! Wait 15 minutes then recheck blood sugar. If blood sugar is less than 60, repeat emergency glucose source. If blood sugar is over 60, allow student to eat. If student feels better, escorts the student to lunch with "Front of Line" lunch pass, or allow the student to eat a snack. If the student is uncooperative, combative, or cannot take the emergency glucose, call 911 and then the parent. Even if the student feels better, notify the parent of the incident.
41 to 60:	Give emergency glucose source (such as 3 - 4 glucose tablets, 1 tube of glucose gel, or 1/2 can of regular coke) provided by the parent. If the student feels OK, escort the student to lunch with a "Front of Line" lunch pass. If it is not lunch time, allow the student to eat a snack.
61 to 80:	Escort student to lunch immediately. Provide "Front of Line" lunch pass so lunch will not be delayed. If not lunch time, allow student to eat a snack immediately.
81 to 180:	This is a normal desirable glucose level. The student is to follow the normal routine or schedule.
81 to 250:	This level is too high, but is not life threatening. Send the student to lunch, or allow him to eat a snack.
Above 250:	Student is to perform urine ketone test. If ketones are negative, send student to lunch or snack. If ketones are present, student may need additional short-acting insulin. Call parent for advice for extra insulin. If parent is not available, have student drink a large amount of sugar-free fluids and send to lunch or snack. ONLY STUDENT, PARENT, OR SCHOOL NURSE, IF AVAILABLE AT SCHOOL, MAY ADMINISTER INSULIN. If student has ketones or has received extra insulin, recheck ketones and blood glucose level prior to leaving the school. Notify parent if ketones are present.

Print Physician's Name	Physician's Address	Phone
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Physician's Signature:	Date
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III. PARENTAL PERMISSION (To Be Completed By Parent/Guardian). Form is void if this section is incomplete.

I hereby request the school personnel, or its agents, to assist in the blood glucose monitoring procedure for my child as prescribed by the doctor. I understand that: (1) there is no liability on the part of the school district, its personnel, or agents, including _____ County Health Department personnel, for civil damages as a result of assisting with this procedure when the person acts as an ordinarily reasonably prudent person would have acted under the same or similar circumstances; (2) the glucose monitor must be provided by the parent/guardian; (3) emergency glucose source must be provided by parent/guardian; (4) the blood glucose monitoring equipment and emergency glucose source must be picked up with one week following the close of the current school year. I hereby authorize the exchange of medical information regarding my child's treatment plan between the physician and school health personnel of the _____ County Health Department and the School District of _____ County.

Parent/Guardian Signature: _____ Date: _____

SAMPLE

Page 2 of 2

IV. STUDENT'S SELF-CARE ASSESSMENT (To Be Completed By Physician/Diabetes Health Educator)

Student's Competency Outcomes	Student's Performance Level		
	Self-Care *	Assisted Care *	Dependent Care *
1. Describes signs and symptoms of hypoglycemia.			
2. Verbalizes action plan for glucose level.			
3. Performs blood glucose Monitoring.			
4. Administers insulin.			
Comments: _____ _____ Date: _____ Diabetes Health Educator/ Physician's Signature: _____			

- * Self Care: Student possesses knowledge, skills, and ability to perform all aspects of diabetes management.
- Assisted Care: Student requires assistance in some aspects of diabetes management.
- Dependent Care: Student unable to perform certain aspects of diabetes management.

PERSONNEL TRAINED IN INDIVIDUAL STUDENT'S CARE (To Be Completed By School Nurse)

Trained Provider's Name	Observes Blood Glucose Monitoring	Performs Blood Glucose Monitoring	Interprets Blood Glucose Level	Observes Insulin Administration	School Nurse's Signature/Date

THIS FORM IS VOID IF ALTERED IN ANY WAY

INSTRUCTIONS: Each of the three sections must be completed by the appropriate person as follows: Parts I and III by Parent/Guardian, Part II by Physician. Please return the completed form to the school health room/office.

I. STUDENT INFORMATION (To Be Completed By Parent/Guardian)

Student's Name (Last, First, Middle)		Birth Date	Medicaid #	Grade/Homeroom Teacher
Parent/Guardian		Address		
Home Phone	Work Phone	Other Phone (Cellular, Beeper, etc.)		
Number of Hospitalizations for Asthma		Date of Last Hospitalization for Asthma		

II. ACTION PLAN (To Be Completed By Physician). Please complete all spaces.

Diagnosis: ASTHMA (Refer to NIH Guidelines for classification on the reverse side).
 _____ Mild Intermittent _____ Mild Persistent _____ Moderate Persistent _____ Severe Persistent

Peak Flow Monitoring Schedule (Select appropriate schedule for student):
 _____ As needed with symptoms _____ Daily, before P.E.
 _____ Daily, at beginning of school day _____ Other _____

Action Plan for Peak Flow Readings (Physician to insert appropriate numerical reading for each category and medication as applicable).

NORMAL Green Zone	CAUTION Yellow Zone	EMERGENCY Red Zone
Greater than _____	Less than _____	Less than _____
1. Document reading on Student Medication Record. 2. Return to class.	1. Document reading on Student Medication Record. 2. Administer authorized medication: _____ 3. Repeat peak flow reading in 20 mins. <ul style="list-style-type: none"> • If Green Zone: Return to Class. No exercise today. Notify parent. • If Yellow Zone: Send home. • If Red Zone: Send home immediately or Call 911. 	1. Document reading on Student Medication Record. 2. Administer authorized medication: _____ 3. Send home immediately or call 911.

Print Physician's Name	Physician's Address	Phone
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Physician's Signature: _____ Date: _____

III. PARENTAL PERMISSION (To Be Completed By Parent/Guardian). Form is void if this section is incomplete.

I hereby request the school's personnel, or its agents, to assist in the peak flow monitoring procedure for my child as prescribed by the doctor. I understand that there is no liability on the part of the school district, its personnel, or agents, including _____ County Health Department personnel, for civil damages as a result of assisting with this procedure when the person acts as an ordinarily reasonably prudent person would have acted under the same or similar circumstances. I hereby authorize the exchange of medical information regarding my child's plan for asthma management between the physician and school health personnel of the _____ County Health Department and the School District of _____ County.

Parent/Guardian Signature: _____ Date: _____

SAMPLE

Page 2 of 2

Classification of Severity: Clinical Features Before Treatment*			
	Symptoms**	Nighttime Symptoms	Lung Function
STEP 4 Severe Persistent	<ul style="list-style-type: none"> ■ Continual symptoms ■ Limited physical activity ■ Frequent exacerbations 	Frequent	<ul style="list-style-type: none"> ■ FEV₁ or PEF ≤ 60% predicted ■ PEF variability > 30%
STEP 3 Moderate Persistent	<ul style="list-style-type: none"> ■ Daily symptoms ■ Daily use of inhaled short-acting beta₂-agonist ■ Exacerbations affect activity ■ Exacerbations ≥ 2 times a week; may last days 	>1 time a week	<ul style="list-style-type: none"> ■ FEV₁ or PEF > 60%, ≤ 80% predicted ■ PEF variability > 30%
STEP 2	<ul style="list-style-type: none"> ■ Symptoms > 2 times a week but < 1 time a day ■ Exacerbations may affect activity 	> 2 times a month	<ul style="list-style-type: none"> ■ FEV₁ or PEF ≥ 80% predicted ■ PEF variability < 20%
STEP 1 Mild Intermittent	<ul style="list-style-type: none"> ■ Symptoms ≤ 2 times a week ■ Asymptomatic and normal PEF between exacerbationis ■ Exacerbations brief (from a few hours to a few days); intensity may vary. 	≤ 2 times a month	<ul style="list-style-type: none"> ■ FEV₁ or PEF ≥ 80% predicted ■ PEF variability < 20%
<p>* The presence of one of the features of severity is sufficient to place a patient in that category. An individual should be assigned to the most severe grade in which any feature occurs. The characteristics noted in this figure are general and may overlap because asthma is highly variable. Furthermore, an individual's classification may change over time.</p> <p>** Patients at any level of severity can have mild, moderate, or severe exacerbations. Some patients with intermittent asthma experience severe and life-threatening exacerbations separated by long periods of normal lung function and no symptoms.</p>			

From NIH Publication No. 97-4051A

PERSONNEL TRAINED IN INDIVIDUAL STUDENT'S CARE

(To Be Completed By School Nurse)

Trained Provider's Name	Performs Peak Flow Procedure	Interprets Peak Flow Reading	Identifies Appropriate Action Step	School Nurse's Signature/Date

**AUTHORIZATION FOR
ADMINISTRATION OF
NON-PRESCRIPTION MEDICATION**

THIS FORM IS VOID IF ALTERED IN ANY WAY

INSTRUCTIONS: Each of the three sections must be completed by parent/guardian. Please return the completed form to the school health room/office.

I. STUDENT INFORMATION (To Be Completed By Parent/Guardian)

Student's Name (Last, First, Middle)		Birth Date	Medicaid #	Grade/Homeroom Teacher
Parent/Guardian		Address		
Home Phone	Work Phone		Other Phone (Cellular, Beeper, etc.)	

II. ACTION PLAN (To Be Completed By Physician). Please complete all spaces.

THIS REQUEST IS TO BE EFFECTIVE THE SCHOOL YEAR 20____ -20____ OR EARLIER STOP DATE: _____

MEDICATION: _____

GENERIC NAME (IF USED): _____

DOSAGE AMOUNT: _____ PLEASE ADMINISTER ACCORDING TO MANUFACTURER'S

LABEL FOR RECOMMENDED TIME SCHEDULE WHEN NEEDED AT SCHOOL FOR THE FOLLOWING

CONDITIONS OR SYMPTOMS: _____

III. PARENTAL PERMISSION (To Be Completed By Parent/Guardian). Form is void if this section is incomplete.

I request the designated school personnel to assist my child in the administration of the above described medication. I give permission for my child to take this medication while in school or while participating in school activities away from the school site. I understand that: (1) there is no liability on the part of the school district, its personnel, or agents, including _____ County Health Department personnel, for civil damages as a result of the administration of this medication to my child when the person administering the medication acts as an ordinarily reasonably prudent person would have acted under the same or similar circumstances; (2) this medication must be brought to the school only by a responsible adult; (3) this medication must be in its original labeled container; (4) this medication will be destroyed if it is not picked up within one week following the above stop date or one week after the close of the current school year, whichever occurs first.

Parent/Guardian Signature: _____ Date: _____

Non-prescription medication requests must be renewed by the parent/guardian and release signed by the parent/guardian annually. Each medication, or any change in medication, requires a new form. The parent/guardian will be responsible for ensuring that medicines provided for the school have not expired.

SAMPLE REGULATIONS FOR ADMINISTERING MEDICATION TO STUDENTS

Page 2 of 2

Administration of medication is the responsibility of the parent/guardian unless it is absolutely essential to the well being of the student to receive medication during the school day. The following regulations must be observed when medication (prescription/non-prescription) is to be administered in the school:

1. An Authorization for Prescription Medication Administration Form must be on file for **each** prescribed medication. The form must be completed in its entirety and signed by the physician and the parent/guardian. This form is valid for one school year, or earlier stop date.
2. An Authorization for Non-prescription Medication Administration Form must be on file for **each** FDA approved non-prescription (over-the-counter) medication to be administered at school if taking the medication is necessary for student to remain in school. The form must be completed and signed by the parent/guardian. This form is valid for one school year, or earlier stop date.
3. Medications, which may be administered by medical or trained non-medical school personnel, include the following: oral and topical medications, eye, ear, and nose drops, inhalers, and Epi Pens®.
4. Medication must be in the original labeled container. A 30-day supply of the medication may be kept at the school. For student safety it is **required** that the parent/guardian or a responsible adult deliver the medication to the school. In hardship cases the parent/guardian must request in writing and receive approval from the school administrator, for an alternative plan for medication delivery.
5. Designated school personnel must attend a workshop in general medication administration and documentation procedures. Following the workshop, the school nurse routinely monitors medication administration and documentation by school personnel. Questions regarding the purpose, effect, expected results, and untoward effects of a medication should be referred to the school nurse.
6. Prescription medication must be supplied in the original container labeled by the pharmacist. The prescription label must be consistent with the medication authorization form. The physician's name appearing on the label may be different from the physician's name on the original medication authorization form. No other changes will be allowed.
7. Changes in medication require a new medication authorization form and medication container.
8. Upon receipt, medication will be counted and documented on the Student Medication Record. Medication will be stored under lock and key when not in use.
9. Each dose of medication administered will be recorded on the Student Medication Record. This record as well as the medication authorization form will be filed in the student's permanent Cumulative Record when the medication authorization form expires or is changed.
10. In cases where a student is able to medicate himself or herself (according to the physician's statement), school personnel will store the medication and generally supervise the student's self-administration. Excluded are students authorized to carry inhalant medication by Florida Statute, Section 232.47.
11. If refrigeration for medication storage is not available in the Health Room, the parent/guardian must provide a Styrofoam or similar cooler for medication storage. The parent/guardian must provide a measuring device for liquid medication.
12. Medication will be destroyed if not picked up within one week following termination of the medication authorization form or one-week after the close of school, whichever occurs first. Medication will be destroyed in a manner in which it cannot be retrieved (i.e. flushing). Disposal will be witnessed by two persons designated by the principal and documented on the Student Medication Record.

ALL STUDENT MEDICATION RECORDS WILL BE HANDLED
IN A CONFIDENTIAL MANNER

SAMPLE
SCHOOL HEALTH SERVICES
PHYSICIAN'S ORDER FOR
IN-SCHOOL TREATMENT/PROCEDURE

1. Name of student _____ Birthdate _____

2. Address _____ City _____ Zip _____

3. Physical condition for which Treatment/Procedure is to be given _____

4. Treatment/Procedure _____

5. Check One: (*May require the School Nurse to contact the physician)

- ___ a. I have reviewed and approved the attached standardized procedures.
- ___ b. *I have reviewed and approved the attached standardized procedures with my modifications.
- ___ c. *I have attached my recommendations for standardized procedures.

6. Precautions, possible untoward reactions any recommended interventions(s)

7. Time schedule and/or indicator for Treatment/Procedure _____

8. The above Treatment/Procedure cannot be scheduled for other than during school hours and may be administered by non-medically trained personnel whenever necessary. The School Nurse is authorized to instruct non-medically trained personnel in the administration of this Treatment/Procedure.

9. Treatment/Procedure to be continued as above until _____ (Date)

10. Date of Physician's Order of Treatment _____

Physician's Signature _____ Phone _____ Fax _____
Address _____ City _____ Zip _____

For School Use Only

School Nurse's Signature _____ Date _____
School _____ Phone _____
Fax _____

SAMPLE
SCHOOL HEALTH SERVICES
PHYSICIAN'S PERMISSION FOR MEDICATION

Page 1 of 2

Date _____

Dear Dr. _____:

According to our records, _____, who attends
 _____ School, is required to take medication.

Florida Statute, 232.0316 provides for administration of medication by school personnel. See detailed guidelines on the back of this form.

Whenever possible, medications should be scheduled outside of school hours.

Only medications ordered by a physician or dentist may be administered in school.

Your written permission is needed when:

1. Prescribed medication is to be kept in the student's possession and self-administered.
2. Any over-the-counter medications including aspirin and cough drops or syrups are prescribed.
3. Medications with increasing or decreasing dosages are part of the therapeutic plan. Please be specific
 RE: Dates, Parameters, etc. Attach additional sheet if needed.

We appreciate your cooperation with this request.

Medication	Time of Day to be Taken	Amount/Number to be Taken	Duration of Medication. Beginning and Ending Dates Where Applicable

Comments: _____

Are there any reactions which might occur which you would like to have reported to you? _____

_____ Date

_____ Physician's Signature

_____ Telephone

_____ FAX Number

Please return this form: _____
 School

_____ FAX Number

By: _____
 Date

_____ Address

SAMPLE GUIDELINES FOR ADMINISTRATION OF MEDICATION IN SCHOOL

Page 2 of 2

A student may have an illness that does not prevent his/her attending school but which requires medication for relief or cure. **If possible, such medication should be given by the parents at home. The medication may be taken at school only if failure to take it could jeopardize the student's health.**

The following rules must be followed:

1. The parent or guardian must provide written permission on the form supplied by the school (MIS 398) for the principal or his designee to assist in the administration of each prescribed medication. An explanation of the necessity for the prescribed medication to be provided during the school day, including when the student is away from school property on official school business, must be included on MIS 298 Parent Permission for Medication.
2. If the physician or dentist orders a nonprescription medication such as aspirin or cough medicine, it will be necessary for the physician or dentist to provide a written note to be brought to the school. The container of nonprescription medication must be labeled with the student's name and directions concerning dosage. MIS 398 must be completed by the parent as outlined above. **No over-the-counter (nonprescription) medications will be given without a written statement from the physician or dentist.**
3. The medication must be received in school and stored in its original container, labeled with the student's name, name of the drug, directions concerning dosage, time of day to be taken, physician's name, and date of prescription. The parent may ask the pharmacist for an extra labeled container when buying the drug.
4. When medication is not in use, it shall be stored in its original container in a secure fashion under lock and key in a location designated by the principal.
5. The student should be responsible for coming to the clinic at the appropriate time for the medication.
6. School personnel should be informed of any side effects or complications which may result from the medication.
7. If a student moves or is reassigned to a different school, transportation of medications from one site to another is the responsibility of the parent/guardian.

SAMPLE

**AUTHORIZATION FOR
ADMINISTRATION OF
PRESCRIPTION MEDICATION**

THIS FORM IS VOID IF ALTERED IN ANY WAY

INSTRUCTIONS: Each of the three sections must be completed by the appropriate person as follows: Parts I and III by Parent/Guardian, Part II by Physician. Please return the completed form to the school health room/office.

I. STUDENT INFORMATION (To Be Completed By Parent/Guardian)

Student's Name (Last, First, Middle)	Birth Date	Medicaid #	Grade/Homeroom Teacher
Parent/Guardian	Address		
Home Phone	Work Phone	Other Phone (Cellular, Beeper, etc.)	

II. ACTION PLAN (To Be completed By Physician). Please complete all spaces.

THIS REQUEST IS TO BE EFFECTIVE THE SCHOOL YEAR 20____ -20____ OR EARLIER STOP DATE: _____
MEDICATION: _____
GENERIC NAME (IF USED): _____
DOSAGE AMOUNT: _____ TIME TO BE ADMINISTERED AT SCHOOL: _____
CONDITION FOR WHICH DRUG IS TO BE GIVEN: _____
NOTE ANY UNTOWARD SIDE EFFECTS: _____

INHALANT PRESCRIPTIONS: This student is both capable and responsible for self-administering this medication: <input type="checkbox"/> No <input type="checkbox"/> Yes-Supervised <input type="checkbox"/> Yes-Unsupervised This student may carry this medication: <input type="checkbox"/> No <input type="checkbox"/> Yes

Print Physician's Name	Physician's Address	Phone
Physician's Signature: _____		Date: _____

III. PARENTAL PERMISSION (To Be completed By Parent/Guardian). Form is void if this section is incomplete.

I request the designated school personnel or its agents to assist my child in the administration of the above prescribed medication. I give permission for my child to take this medication while in school or while participating in school activities away from the school site. I understand that: (1) there is no liability on the part of the school district, its personnel, or agents, including Escambia County Health Department personnel, for civil damages as a result of the administration of this medication to my child when the person administering the medication acts as an ordinarily reasonably prudent person would have acted under the same or similar circumstances; (2) this medication must be brought to the school only by a responsible adult; (3) this medication must be in its original labeled container; (4) this medication will be destroyed if it is not picked up within one week following the above stop date or one week after the close of the current school year, whichever occurs first. I hereby authorized the exchange of medical information regarding my child's treatment plant between the physician and school health personnel of the _____ County Health Department and the School District of _____ County.

Parent/Guardian Signature: _____ Date: _____

Medication orders must be renewed by the attending physician and release signed by the parent/guardian annually. Each medication, or any change in medication requires a new form. The parent/guardian will be responsible for ensuring that medicines provided for the school have not expired.

Pursuant to Section 232.46, Florida Statute, any student who is required to take, during the regular school day, medication prescribed for him/her by a physician, may be assisted by the school nurse or other designated personnel.

SAMPLE
THE SCHOOL DISTRICT OF _____
REGULATIONS FOR
ADMINISTERING MEDICATION TO STUDENTS

Administration of medication is the responsibility of the parent/guardian unless it is absolutely essential to the well being of the student to receive medication during the school day. The following regulations must be observed when medication (prescription/non-prescription) is to be administered in the school:

1. An Authorization for Prescription Medication Administration Form must be on file for **each** prescribed medication. The form must be completed in its entirety and signed by the physician and the parent/guardian. This form is valid for one school year, or earlier stop date.
2. An Authorization for Non-prescription Medication Administration Form must be on file for **each** FDA approved non-prescription (over-the-counter) medication to be administered at school if taking the medication is necessary for student to remain in school. The form must be completed and signed by the parent/guardian. This form is valid for one school year, or earlier stop date.
3. Medications, which may be administered by medical or trained non-medical school personnel, include the following: oral and topical medications, eye, ear, and nose drops, inhalers, and Epi Pens®.
4. Medication must be in the original labeled container. A 30-day supply of the medication may be kept at the school. For student safety it is **required** that the parent/guardian or a responsible adult deliver the medication to the school. In hardship cases the parent/guardian must request in writing and receive approval from the school administrator, for an alternative plan for medication delivery.
5. Designated school personnel must attend a workshop in general medication administration and documentation procedures. Following the workshop, the school nurse routinely monitors medication administration and documentation by school personnel. Questions regarding the purpose, effect, expected results, and untoward effects of a medication should be referred to the school nurse.
6. Prescription medication must be supplied in the original container labeled by the pharmacist. The prescription label must be consistent with the medication authorization form. The physician's name appearing on the label may be different from the physician's name on the original medication authorization form. No other changes will be allowed.
7. Changes in medication require a new medication authorization form and medication container.
8. Upon receipt, medication will be counted and documented on the Student Medication Record. Medication will be stored under lock and key when not in use.
9. Each dose of medication administered will be recorded on the Student Medication Record. This record as well as the medication authorization form will be filed in the student's permanent Cumulative Record when the medication authorization form expires or is changed.
10. In cases where a student is able to medicate himself or herself (according to the physician's statement), school personnel will store the medication and generally supervise the student's self-administration. Excluded are students authorized to carry inhalant medication by Florida Statute, Section 232.47.
11. If refrigeration for medication storage is not available in the Health Room, the parent/guardian must provide a styrofoam or similar cooler for medication storage. The parent/guardian must provide a measuring device for liquid medication.
12. Medication will be destroyed if not picked up within one week following termination of the medication authorization form or one-week after the close of school, whichever occurs first. Medication will be destroyed in a manner in which it cannot be retrieved (i.e. flushing). Disposal will be witnessed by two persons designated by the principal and documented on the Student Medication Record.

ALL STUDENT MEDICATION RECORDS WILL BE HANDLED
IN A CONFIDENTIAL MANNER



Sample School Medication Records & Treatment Forms

- ◆ Medication Administration Record
- ◆ Medication Error Report/Occurrence Report
- ◆ Permission to Self-Administer
- ◆ Permission for Student to Keep Medication in their Possession
- ◆ Sample Epi Pen® Policy
- ◆ Permission to Use Non-Prescription Medication Form
- ◆ Permission to Use Medication While Off Campus (eg. Field Trip) Form
- ◆ Before/After School Programs
- ◆ Staff Training for Medication Administration

Medication Administration Record

Refer to your school policy and use the form/format required for documenting medication administration. Numerous examples are available for your consideration. The recommended components of a medication administration record include all of the following:

- Student name.
- Student ID number.
- Student photo to facilitate identification.
- Student Age (including date of birth).
- School.
- Grade.
- Allergies (food, medication, environmental, etc.).
- Adverse reactions to medication.
- Condition(s) being treated.
- Physician name and phone number.
- Personnel authorized to administer medication (Name and Signature).
- Self-administration authority.
- Medication.
 - Name of medication.
 - Start and stop dates for orders.
 - Dose.
 - Route of administration.
 - Frequency/Schedule.
- Documentation of the time given.
- Documentation of medication administration (Signature).
- Documented count for all medications.
- Special instructions.
- Documentation if medication not administered, with explanation code (eg. A=Absent, R=Refused, ED=Early Dismissal, MNA=Medication Not Available, DW=Dose Withheld by RN, NS=No Show, FT=Field Trip, N=Narrative,).
- Documentation if medication was dispensed for use during an off campus event (eg. field trip).
- Teacher.
- Medication administration equipment used (eg. aerosol spacer).
- Inventory (by Florida law all medication must be counted upon receipt, and at regular intervals as directed by school policy).

For Medicaid billing the following is also required:

- Signature of person completing the form.
- Bill for 30 days service.
- Check current Medicaid laws.

SAMPLE MEDICATION ADMINISTRATION RECORD

Student's Name: _____ DOB: _____ School: _____ Grade: _____ Teacher: _____

Allergies: _____ Medical Condition: _____

Personnel Authorized to Give Medication: _____ Self-Administer: yes, with assistance, no

Initial each entry. Record time medication is given or use code if not given: A=Absent, R=Refused, ED=Early Dismissal, NA=Medication Not Available, DW=Dose Withheld by RN, NS=No Show, FT=Field Trip, N=Narrative

Order From	Order To	Medication Dose / Route / Frequency	Time Given in School	Physician	Special Instructions	Actual D/C Date

Administered: Day/Hour (7AM, 3PM) / Initials

MM/YY	Medication & Dose	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Monthly Total		

Medication Inventory Record: Count with Signature Required Initially, Monthly, and at when Discontinued.

Medication & Dose	DD/MM/YY BEGINNING Count Signature	DD/MM/YY Count Signature	DD/MM/YY Count Signature	DD/MM/YY Count Signature	DD/MM/YY Count Signature	DD/MM/YY Count Signature	DD/MM/YY Count Signature	DD/MM/YY ENDING Count Signature

Nurse/Staff Signature								
Initials								

SAMPLE SUPERVISION OF MEDICATION ADMINISTRATION

TO BE FILED WITH PARENT PERMISSION FOR MEDICATION AND DOCTOR'S PERMISSION FOR MEDICATION

KEY I = Weekend A = Absent H = Holiday Initial in box under date and next to medication

Signature and initials of person authorized to administer medication:

Student's Name Grade Room

MONTH OF:

MEDICATION	DOSE	TIME	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31

MONTH OF:

MEDICATION	DOSE	TIME	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	

MONTH OF:

MEDICATION	DOSE	TIME	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	

SAMPLE STUDENT MEDICATION RECORD

Student Medication Record
2002/2003 School Year
2nd Semester

Page 1 of 2

Name: _____ DOB: _____ Diagnosis: _____ Allergies: _____

Prescriber: _____ Medicaid Number: _____ Authorization Date: _____ Stop Date: _____

Medication: _____ Dosage: _____ Route: _____ Time: _____

*Administer Lunch Dose on Half Days: Yes No Date Parent Responsibilities Protocol Given: _____

Medication Counts (continued on back)					
Date/Time	On Hand	Received	Returned	Total	Initials

Jan	8	9	10	13	14	15	16	17	21	22	23	24	27	28	29	30*	31			
Time																				
Initials																				
Code																				
Feb	3	4	5	6	7	10	11	12	13	14	17	18	19	20	21	24	25	26	27	28
Time																				
Initials																				
Code																				
Mch	3	4	5	6	7	10	11	12	13	14	24	25	26	27	28	31			Apr	1
Time																				
Initials																				
Code																				
Apr	2	3	4	7	8	9	10	11	14	15	16	17	21	22*	23	24	25	28	29	30
Time																				
Initials																				
Code																				
May	1	2	5	6	7	8	9	12	13	14	15	16	19	20	21	22				
Time																				
Initials																				
Code																				

Response to medication is documented on Student Treatment Record when indicated.

Initials	Signature/Title
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

- Medication Codes**
- | | |
|------------------------|---------------------|
| A Absent | M Missed Medication |
| B Bottle Home | N No Show |
| C Comments on back | O Out of Med |
| D Early Dismissal | R Refused |
| E Emergency Evacuation | W Withheld dose |
| F Field Trip | |

Medication Error Report/Occurrence Report (pages 54 & 55)

It is important to establish processes and train and monitor people to prevent medication errors. This should lead to system improvements. Non-punitive reporting will facilitate obtaining support for system enhancements such as additional training, additional staff and state-of-the-art health care computer programs.

Medication error reporting is addressed by the school district Risk Management Policy. Medication error reporting is required by the Safety Committee of the School Board as directed by the Florida Department of Health. Required elements in a medication error reporting policy include the following:

- Who reviews the error as part of the school “continuous quality improvement” plan.
- The error should merge into a larger report so medication error trends can be evaluated by the school Safety Committee, or School Health Advisory Committee.
- Improvement efforts should be documented and shared.

KEY COMPONENTS OF ERROR REPORTING

- Student Name
- Medication Name
- What Happened
- Contributing Circumstances
- Time/Date
- Location
- Condition of Student
- Follow Up
- Person Reporting

If you do not have a specific Medication Error Report form, use a School Occurrence Report form. The following critical components should be included:

- Student name and identification number.
- Students medical diagnosis/problem.
- When and where the error occurred (date/time/location).
- A description of the error and the circumstances.
- Circumstances that contributed to the error.
- The condition of the student after the error, (no adverse effect, minor adverse effect, major adverse effect).
- Additional help that was required, eg. emergency service or 911.
- Follow up action that was taken, including long term monitoring of the student.
- The person(s) responsible for the error.
- Identify who was notified of the error (parent/guardian, physician, school nurse, school administrator).
- Name of person who completed the report.
- Date report completed.

The following table presents the most common types of medication errors along with the best way to prevent them.

<i>Type of Medication Error</i>	<i>Preventive Action</i>
Medication Given to Wrong Student	<ul style="list-style-type: none"> • Verify the students name. • Ask the student to print their name. • Attach a picture to the medication administration record. • Ask the student to name the medication.
Wrong Medication	<ul style="list-style-type: none"> • Double check the prescription label. • Ask the student to describe the medication (eg. blue tablet). • Do not administer a medication that someone else has prepared.
Wrong Dose	<ul style="list-style-type: none"> • Double check the prescription label. • Write a description on the MAR (eg. 2 tablets, 10ml, etc.). • For decimals, use leading zeroes for fraction (eg. 0.5) but do not use trailing zeros (eg. 10.0) • Write out words like “units” and “micrograms” instead of abbreviating them as “µ” and “µg.” • Call the parent/guardian, physician or pharmacist if you think the dose has changed and you have not been notified. This would be appropriate if the medication does not seem to be working properly. • Re-calculate the dose if it requires measurement. • Use pharmaceutical measures, not household utensils. • Do not administer a medication that someone else has prepared. • Check the date on the prescription label. Sometimes parents/guardians provide “old containers” that do not reflect the most recent prescribed dose or schedule.
Wrong Route	<ul style="list-style-type: none"> • Double check the directions on the label, or container. • Never give ear drops in eye, or eye drops in the ear. • Ask the student WHICH eye or ear they get their medicine in. • A common error is giving <i>oral</i> liquid antibiotics in the ear for an ear infection. • In a school setting, medication can be administered within 1 hour before or after the scheduled time. Exception: Medication that must be administered with meals.
Wrong Time	<ul style="list-style-type: none"> • Check the medication label. • Interpret and standardize the exact time to give the medication on the MAR so vague label directions are not re-interpreted each day. • If this is a chronic problem, arrange for the student to be paged, or ask a teacher to remind them. • In a school setting, medication can be administered within 1 hour before or after the scheduled time. Exception: medication that must be administered with meals.
Medication Not Given	<ul style="list-style-type: none"> • If the student or medication was not available, identify the reason and take corrective action. • If the school staff was not prepared, develop a systematic method for scheduling students and reminding them.

SAMPLE MEDICATION OCCURRENCE REPORT

Student Name _____ DOB _____ School _____ Grade _____

Date of Occurrence ___/___/___ Time of Occurrence _____

Location of Occurrence: _____ Health Room, _____ Class Room, _____ Off Site, _____ Other

Staff Involved: _____ RN, _____ Health Clerk, _____ Teacher, _____ Substitute, _____ Office Staff, _____ Other

Medical Diagnosis: _____ Medication Name/Dose: _____

Response Observed: _____ No Adverse Effect, _____ Minor Adverse Effect, _____ Major Adverse Effect

Describe Adverse Effect: _____

Student Condition Prior to Occurrence: _____

- | | | |
|-------------------------|------------------------------|----------------------|
| 1. Alert/normal | 5. Depressed affect | 9. Intoxicated |
| 2. Agitated | 6. Suicidal affect | 10. Language Barrier |
| 3. Unconscious | 7. Lethargic | 11. _____ |
| 4. Refuses to cooperate | 8. Substance Abuse Suspected | |

Medication Variance: Medication/Dose: _____

Variance: _____ Explain: _____

- | | | |
|-------------------------------------|-------------------------------------|------------------|
| 1. Medication Missing | 4. Medication charted but not given | 7. Wrong Route |
| 2. Adverse side effects | 5. Duplication/Extra Dose given | 8. Wrong Dose |
| 3. Medication given but not charted | 6. Time Variance (> 1 hour) | 9. Wrong Student |

Procedural Variance: _____ Explain: _____

- | | | |
|------------------------------------|----------------------------|--------------------------------------|
| 1. Performed on Wrong Student | 4. Staff was not Available | 7. Authorization not signed |
| 2. Improper Preparation of Student | 5. Omission of Procedure | 8. Security problem |
| 3. Student was Not On Time | 6. Supplies not available | 9. Equipment not available/operating |

Name/Title of Person Responsible for Occurrence: _____

NOTIFICATION: Parent/Guardian Called: Date _____ Time _____

Parent/guardian Arrived: Time _____

Parent/guardian Response: _____

Doctor Called: Date _____ Time _____, Arrived: _____ Notification Only: _____

911 called: Time _____ Response: _____

Administrator Called: Time: _____ Nurse Called: Time: _____

Other: _____

Report Completed By (Name/Title) _____ Date _____

Reviewed By (Name/Title) _____ Date _____

SAMPLE REPORT OF MEDICATION ERROR

Name of School

Date and Time of Error

Name of Student

Birth Date

Name and Position of Person Administering Medication

Prescribed Medication / Dosage / Route / Time

Describe error and circumstances leading to error: _____

Describe action taken: _____

Persons notified of error:

	Name	Date	Time
Principal			
Parent			
Physician			
School Health Coordinator Phone: _____			
Other			

Signature (person completing report)

Date Completed

Follow-up information if applicable (to be completed by School Health Coordinator):

Permission To Self-Administer

Requests for self-administration can be initiated by the parent/guardian, physician, or student. In addition, the school nurse must document an evaluation of the student prior to approving the request to self-administer. This will determine if: a) the student can self-administer medication themselves, b) can self-administer medication with assistance, or c) the student cannot self-administer medication. The most common requests for self administration are for inhalers, insulin, or an Epi Pen®. Several schools have developed student assessment questionnaires that are completed by the school nurse. The critical components of this assessment include the following:

- Student name.
- Student ID number.
- Age and date of birth.
- Name of medication.
- Medical condition being treated.
- Physical or behavioral limitations.
- Is the student capable of identifying individual medication?
- Does the student know why they are taking the medication?
- Can the student identify/associate specific symptoms with the need to take their medication?
- Is the student capable/knowledgeable of medication dosage?
- Is the student capable/knowledgeable of medication preparation?
- Is the student capable/knowledgeable of medication administration? By themselves, or with assistance?
- Can the student state side effects/adverse reactions to their medication?
- Does the student know how to access assistance for themselves if needed in an emergency?
- Is the student responsible enough to carry the medication with them?
- Does the student understand the school policies pertaining to medication?

The school nurse must document that the student is capable of self-administering their medication and describe any special circumstances. When the student is self-administering in the school clinic the medication must be recorded and the student monitored.

- Who has medications
- What do they have
- Circumstances
- Age/responsibility specific policy
- Reporting requirements

Permission For Student to Keep Medication in Their Possession

(Requires permission to self-administer from licensed prescriber)

The parent or guardian should request permission for the student to keep their medication in their possession. A consent form should be signed which specifies the reasons and circumstances, including the name of the medication. This can be built into the consent form for medication (see the example in Chapter 4.) The consent form should clearly state that it is the responsibility of the parent or guardian to ensure that the student has their medication when needed. If the school authorities determine that the student is responsible enough to be trusted with their own medication, permission can be granted. The student should be issued an authorization card which specifies the following:

- Name of the student.
- Name of the medication.
- Quantity permitted.
- Timeframe of permission card.
- Name of physician.

Examples: The following are three examples of a school administered student evaluation form used at a Florida school, and a prototype student authorization/reporting card.

- Inhaler Procedure (page 57)
- Blood Glucose and Insulin (page 58)
- Authorization to Carry and Self-Administer (page 59)

School Policy and Protocol for Emergency Treatment and Disease Management

Several sample protocols are provided.

- Emergency Use of Epi Pen® (page 60)
- Asthma Management (pages 61 - 62)
- Peak Flow Monitoring (pages 37 - 38)
- Blood Glucose Monitoring (pages 35 - 36, 63)
- Blood Glucose Log (page 63)

SAMPLE
STUDENT ASSESSMENT/AUTHORIZATION EVALUATION
INHALER PROCEDURES

Student Name: _____ ID _____ DOB _____ School _____ Grade _____

Physician _____ Physician Phone # _____

Medical Condition _____

Medication _____ Dose _____ Time _____

Medication must be dispensed following the School District Medication Policy.
 The inhaler must be labeled with the student's name.

RESPONSIBILITIES FOR CARRYING RESPIRATORY INHALERS:

Yes	No	Observation
		Asthma Action Plan Returned
		Correct use of inhaler
		Proper timing for inhaler use
		Not sharing inhaler with other students
		Keep inhaler in student's belongings
		Agrees to come directly to the Health Room if the student continues to have difficulty with breathing, wheezing, or is experiencing chest tightness after using the inhaler
		Provides a second inhaler to be kept in the health room (required at the elementary, recommend at the secondary)

The student DOES/DOES NOT demonstrate meeting the above specified responsibilities.

The privilege of carrying the inhaler WILL/WILL NOT be allowed.

Student Signature: _____ Date _____

RN Signature: _____ Date _____

Comments: _____

My child will be responsible for carrying this respiratory inhaler and will self-administer. My child agrees to follow the district's procedures concerning the handling and administration of this medication.

Parent/Guardian Signature: _____ Date _____

SAMPLE
STUDENT ASSESSMENT/AUTHORIZATION EVALUATION
BLOOD GLUCOSE AND INSULIN PROCEDURES

Student Name: _____ ID _____ DOB _____ School _____ Grade _____

Physician _____ Physician Phone # _____

Medical Condition _____

Medication _____ Dose _____ Time _____

Medication must be dispensed following the School District Medication Policy. # _____

RESPONSIBILITIES FOR MONITORING BLOOD GLUCOSE AND ADMINISTERING INSULIN

Yes	No	Observation
		Diabetes Checklist/Action Plan returned
		Correct use of blood glucose monitor
		Demonstrates correct use of insulin pump
		Demonstrates knowledge of self-administration of insulin
		Proper timing and documentation of monitoring blood glucose
		Proper timing for administration of insulin
		Demonstrates appropriate use of supplies
		Follows appropriate method for disposal of supplies
		Keeps treatment for insulin reactions in student's belongings
		Agrees to seek assistance from school personnel as needed

The student DOES/DOES NOT demonstrate meeting the above specified responsibilities.

The privilege of monitoring blood glucose and self-administration of insulin WILL/WILL NOT be allowed.

Student Signature: _____ Date _____

RN Signature: _____ Date _____

Comments: _____

My child will be responsible for carrying supplies and will self-administer. My child agrees to follow the district's procedures concerning the handling and administration of this medication.

Parent/Guardian Signature: _____ Date _____

SAMPLE

AUTHORIZATION TO CARRY AND SELF-ADMINISTER MEDICATION

FRONT OF CARD

Student: _____ Medication/Device: _____

Individual Health Care Plan on file: _____ Student Agrees To School Policy _____

Date: _____ Not valid after: _____

RN Signature: _____ Student Signature: _____

BACK OF CARD

MONTH	Day/Time										

SAMPLE EPI PEN® POLICY

Following is an example of a policy from a Florida school district for use of an Epi Pen®, when the student has the medication prescribed.

Sample Epi Pen®, Protocol

In the event of anaphylaxis, an allergic reaction that may be triggered by asthma, an insect bite, a medication allergy, or a food allergy, the Epi Pen®, will be used for students enrolled in grades kindergarten through twelve. The following procedure should be followed by a school nurse or designated non-professional first-aid provider trained by a school nurse.

ALLERGIC REACTIONS (SEVERE)

Severe allergic reactions in children are usually due to an insect sting (bees, wasps, hornets) or may be caused by medication or foods.

SYMPTOMS TO WATCH FOR

MILD

Rash
Itching
Hives

MODERATE

Breathing difficulty
Wheezing

SEVERE

(Anaphylactic Shock)
Severe breathing difficulty
Vascular collapse (shock)
Laryngeal swelling (throat closing)
Cardiac arrest

IF ANY OF THESE SYMPTOMS OCCUR, DO THE FOLLOWING:

- Call 9 1 1
- Locate Epi Pen® and be prepared to administer it if condition becomes severe
- Inject epinephrine from Epi Pen® into outer thigh (use opposite side from sting)
- The effects of the injection begin to wear off after 10 – 20 minutes, so it is important to seek further medical assistance
- Notify nurse and parent/guardian
- Keep the student warm
- Continue to monitor the student for symptoms

Guideline: Use Epi Pen® if weight is at least 30 kg (66 lbs.)

Use Epi Pen Jr.® if weight is 33-66 lbs.

Directions for Use:

1. Check for color – Don't inject if fluid is brown
2. Pull off safety cap
3. Place tip on thigh at right angle to leg
4. Press hard into thigh, the syringe will automatically inject
(if there is no time, the Epi Pen® may be used directly through clothing)
5. Hold in place for 10 seconds
6. Remove and massage area for 10 seconds
7. Dispose of Epi Pen® in a Sharps container

SAMPLE GUIDELINES FOR MANAGING ASTHMA IN THE SCHOOL SETTING

Page 1 of 2

Definitions:

Asthma is a chronic inflammatory disorder of the airways which causes recurrent episodes of wheezing, breathlessness, chest tightness, and cough, particularly at night and early morning. It is characterized by excessive sensitivity of the lungs to various stimuli and with physical exertion.

Peak Flow Meter is a tool for objectively measuring the severity of asthma.

Peak Flow Reading is the fastest speed at which air is forced from the lungs after taking in a deep breath. This measurement is useful in detecting changes in the airways that signal a worsening of symptoms and/or improvement in breathing function.

Triggers are stimuli that cause asthma episodes such as: respiratory infections, pollen, mold, animal dander, feathers, dust, food, vigorous exercise, sudden temperature changes, air pollution, fumes, strong odors, cigarette smoke, excitement, or stress.

The School District of _____ County, The _____ County Health Department, the American Lung Association, the School Health Advisory Committee, and local pediatric experts in the field of asthma have approved these guidelines to manage asthma in the school setting.

Asthma is the most common chronic disease of childhood. Most children have a relatively mild form that can be controlled by medication. However, certain factors, or triggers, may result in symptoms such as wheezing, dry hacking cough, or even severe breathing difficulties. Peak flow readings provide a simple tool for monitoring asthma status and determining the need for intervention. A child specific action plan, created by the physician and signed by the parent, will identify peak flow zones and appropriate school-based interventions.

Responsibilities in Asthma Management:

Parent/Guardian

- Obtain a completed form, Authorization for Peak Flow Monitoring and Action Plan, from student's physician.
- Provide prescribed medication listed on action plan with matching Medication Authorization form.
- Collaborate in the development of the student health care plan.
- Provide and maintain current emergency contact phone numbers.
- Accept financial responsibility for 911 call and transportation to hospital, if indicated.

Physician

- Complete Part II of the Authorization for Peak Flow Monitoring and Action Plan form.
- Complete Medication Authorization form for each medication listed in action plan.
- Collaborate in the development of the student health care plan.
- Provide child-specific consultation as needed for asthma management.

School Nurse and Other Health Personnel

- Develop and maintain student health care plan.
- Alert school staff about students with a history of asthma.
- Obtain peak flow readings and implement action plan.

SAMPLE GUIDELINES FOR MANAGING ASTHMA IN THE SCHOOL SETTING

Page 2 of 2

- Communication with parent/guardian about acute episodes and any difficulties in Controlling asthma at school.
- Provide staff consultation, as needed.
- Offer students health education about asthma.
- Assist with quality assurance activities for asthma management.

Physician Education Instructor/Coach

- Encourage exercise and participation in sports for students with asthma but recognize and respect their limits.
- Follow student's action plan.
- Collaborate with parent and school nurse to identify appropriate activity level.

American Lung Association

- Facilitate the acquisition of peak flow meters and disposable mouthpieces for each school.
- Coordinate the Open Airways program for the education of elementary students with asthma.

Medical Community

- Provide staff education and updates about asthma and its management to school administrators, faculties, and health personnel.
- Assist with quality assurance activities and make recommendations when indicated.

Action Plan

NORMAL Green Zone Greater than _____	CAUTION Yellow Zone Less than _____	EMERGENCY Red Zone Less than _____
1. Document reading on Student Medication Record. 2. Return to class	1. Document reading on Student Medication Record. 2. Administer authorized medication: _____ 3. Repeat peak flow reading in 20 minutes. If green zone: Return to class. No exercise today. Notify parent. If yellow zone: Send home. If red zone: Send home immediately or Call 911.	1. Document reading on Student Medication Record. 2. Administer authorized medication: _____ 3. Send home immediately or call 911.

In accordance with Florida Statute 232.47, students may carry on their person prescribed inhalant medications. However, a current Medication Authorization form for the inhalant must be on file in the health room.

Parents may consult with the school administrator, nurse, and/or classroom teacher regarding environmental triggers that affect their student.

Permission To Use Non-Prescription Medication Form (pages 29 - 31)

Permission to use non-prescription medication should be included in the School Medication Policy form that the parent/guardian must sign. (See Chapter 4.)

Permission To Use Medication While Off Campus (eg. Field Trip) Form (pages 65 & 67)

Students may require medication while away from the school campus. The following should be addressed as school policy:

- The parent or guardian should list any medication the student will require during the excursion when they sign the trip consent. This should include any considerations/instructions for the person who will be administering the medication.
- Designated personnel will be trained by the school nurse to administer the medication. That person must maintain possession and control of the medication at all times. Special storage considerations may be needed to ensure security and refrigeration.
- Medication should be in the original labeled container. If the school repackages sufficient medication for the event it must follow required labeling standards; including the name of the student, name of the medication, dose of the medication, directions for use, and special considerations.
- Medication should be counted by 2 adults prior to leaving school grounds to assure proper doses are available during the trip.
- The designated personnel will be responsible for returning the remaining medication to the school before the next dose is due.
- The designated personnel documents that medication was administered on the student Medication Administration Record.

After School Programs

After school programs must conform to statutes and policies pertaining to medication. They may or may not be an official school program, and they may or may not be on site. Unless they are an official school program with an official established relationship with the school health service and school nurse, they will be required to have:

- Their own policies and procedures.
- Their own supply of medication.
- Separate records.
- Separate authorization/permission documentation.
- If school district staff is used, they must have training and be approved by the school nurse.

It is recommended that the after school program collaborate with the School Health Service to ensure as much consistency as possible, and consider adopting an authorization/permission form for their program.

SAMPLE FIELD TRIP MEDICATION PROCEDURE

Page 1 of 2

The School District of _____ County and _____ County Health Department established these guidelines for staff in order to competently meet the medical needs of students who require medication administration on field trips. The staff person accompanying the student during the field trip will be responsible for security of the medication, medication administration, and documentation.

SCHOOL HEALTH PERSONNEL RESPONSIBILITIES:

1. Notify teachers of students requiring medications on field trips.
2. Place correct number of medication dosages for the field trip in the labeled medication envelope after checking the five rights.
 1. Right Student
 2. Right Medication
 3. Right Dosage
 4. Right Time
 5. Right Route (oral, inhaled, drops)

Label the envelope with student's name, medication name, dosage, route and time to be given.

School Envelope	Sample
No. _____ Date _____	No. _____ Date <u>9/12/01</u>
For _____	For <u>Jolly Jumper</u>
Directions _____	Directions: <u>Ritalin 10 mg. Tablet.</u>
_____	<u>Give 1 Tablet by mouth at 12:00 noon</u>
_____	_____
_____	<u>Given at 12:10 PM per MS Teach</u>

3. Copy the **Authorization for Administration of Prescription Medication** form and place in labeled plastic bag, along with the medication envelope.
4. Document the medication dose prepared for the field trip in the comments section of the **Student Medication Record**.
5. Ensure that the school district person signs the **Student Medication Record** to acknowledge receipt of the medication on the day of the field trip.
6. Upon their return, ensure that medication administrator (school or school health person) records the dose administered on the **Student Medication Record**.

SCHOOL DISTRICT PERSONNEL RESPONSIBILITIES:

1. Teacher will notify the school health staff of a scheduled field trip 24 hours in advance.
2. Receive the medication in a properly labeled medication envelope from the school health personnel, and acknowledge receipt of the medication with their signature on the **Student Medication Record**. (Morning of the field trip).

SAMPLE FIELD TRIP MEDICATION PROCEDURE

Page 2 of 2

3. Keep the medication in a secure place at all times while on the field trip.
4. Administer the medication within 60 minutes before or after the time indicated on the **Authorization for Administration of Prescription Medication** form.
5. Return the **Authorization for Administration of Prescription Medication** form to the health room following the field trip. Sign your name, and indicate the time the medication was administered, on the **Student Medication Record**.

PARENT RESPONSIBILITIES:

After School-Day Field Trips:

1. Parents will need to know several weeks in advance of a field trip in order to coordinate with their physician in obtaining the authorization for all medications needed on a 24-hour basis.
2. Bring the medication bottle from home, which addresses all regularly scheduled medications.
3. Return the school permission form along with the appropriate medical information for medical emergencies, and the **Authorization for Administration of Prescription Medication** form.
4. Meet with school personnel to discuss the medical needs of the student and the arrangements for the medication administration.

ADDITIONAL INFORMATION:

- If a liquid medication is to be dispensed, the original container and a device for measuring the medication must be taken on the trip.
- Non-prescription medications must be in the original bottle and have the manufacturer's label with directions for age-specific doses, along with a parent-signed **Authorization for Administration of Non-Prescription Medication**.
- If a medication is not given as it is ordered, the person responsible for giving the medication must complete a **Medication Error Report**, which is available from the clinic.

Staff Training for Medication Administration (See pages 68 - 70 for examples)

See Chapter 13, “Nursing Rule CH64B9-14 Delegation to Unlicensed Assistive Personnel.”

64B9-14.002 Delegation of Tasks or Activities.

In the delegation process, the delegator must use nursing judgment to consider the suitability of the task or activity to be delegated.

- (1) Factors to weigh in selecting the task or activity include:
 - (a) Potential for patient harm
 - (b) complexity of the task
 - (c) Predictability or unpredictability of outcome including the reasonable potential for a rapid change in the medical status of the patient
 - (d) Level of interaction required or communication available with the patient
 - (e) Resources both in equipment and personnel available in the patient setting
- (2) Factors to weigh in selecting and delegating to a specific delegate include:
 - (a) Normal assignments of the UAP
 - (b) Validation or verification of the education and training of the delegate
- (3) The delegation process shall include communication to the UAP which identifies the task or activity, the expected or desired outcome, the limits of authority, the time frame for the delegation, the nature of the supervision required, verification of delegate’s understanding of assignment, verification of monitoring and supervision.
- (4) Initial allocation of the task or activity to the delegate, periodic inspection of the accomplishment of such task or activity, and total nursing care responsibility remains with the qualified nurse delegating the tasks or assuming responsibility for supervision.

Specific Authority 464.006 FS. Law Implemented 464.003(3)(a), (b), (d), (e), 464.018(1)(h) FS. History—New 1-1-96, Formerly 59S-14.002.

64B9-14.003 Delegation of Tasks Prohibited.

The registered nurse or licensed practical nurse, under direction of the appropriate licensed professional as defined in s. 464.003(3)(b), F.S., shall not delegate:

- (1) Those activities not within the delegating or supervising nurse’s scope of practice.
- (2) Nursing activities that include the use of the nursing process and require the special knowledge, nursing judgment or skills of a registered or practical nurse, including:
 - (a) The initial nursing assessment or any subsequent assessments;
 - (b) The determination of the nursing diagnosis or interpretations of nursing assessments;
 - (c) Establishment of the nursing care goals and development of the plan of care; and
 - (d) Evaluation of progress in relationship to the plan of care.
- (3) Those activities for which the UAP has not demonstrated competence.

Specific Authority 464.006 FS. Law Implemented 464.003(3)(a), (b), (d), (e), 464.018(1)(h) FS. History—New 1-1-96, Amended 4-29-96, Formerly 59S-14.003.

If a school nurse or other licensed healthcare professional is not available, the school principle must designate a person to be responsible for medication administration. The staff that is delegated must be trained and monitored by the school nurse. Annual update re-training is recommended. Examples of training documents from Florida schools are provided.

SAMPLE MEDICATION ADMINISTRATION SKILLS CHECKLIST

Name: _____

Position: _____ School: _____

SKILL	Performs in Accordance to Guidelines	Requires Further Instruction and Training
Wash hands before assisting with medication administration and when there has been any evidence of contamination.		
Check student's identity with name on labeled container.		
Compare labeled medication container with written order/medication log.		
Give proper dose of medication as indicated on medication label and written order/medication log.		
Give medication at the time indicated on written order/medication log.		
Remove doses of medication from container without touching medication and assist in administering by proper route.		
Record medication given on student's medication administration log as soon as medication is taken.		
Return medication to locked drawer, cabinet, or refrigerator box.		
Complete understanding of school policy.		
Complete understanding of reference material and help resources which are available.		

School Nurse Signature: _____ Date: _____

SAMPLE MEDICATION ADMINISTRATION COMPETENCY CHECKLIST

Name: _____ Title: _____

School: _____ Date: _____

Activity	Performs According to Guidelines	Requires Further Instruction & Supervision
Wash hands		
Identify student		
Compare medication label with Authorization		
Confirm Right student medication, dose, route, & time		
Check expiration date		
Administer the medication		
Recheck the 5 Rights		
Document on SMR		
Re-lock medication cabinet		

*Initial each observed activity in appropriate column.

Signature and Title of Observer

**SAMPLE
ACKNOWLEDGEMENT OF TRAINING
MEDICATION ADMINISTRATION**

Name: _____ Date: _____
(Please Print)

School: _____ Position: _____

Instructors: _____

I hereby acknowledge that the _____ County School District has provided me training by the _____ County Health Department concerning medication administration at school. I understand that I must follow the guidelines provided by the _____ County School District in accordance with State Law 232.46. I will be observed at least annually by a school nurse using a competency checklist. I agree to supervise students following the established guidelines.

Signature

Social Security Number

Medication Storage & Disposal

- ◆ General Storage and Security (also see page 28, Medication Storage and Safety Tips, Parent Information)
- ◆ Refrigerated Storage
- ◆ Controlled Substances
- ◆ Off Site (Camps, Field Trips, etc.)
- ◆ Expired or Discontinued Prescriptions
- ◆ Outdated or Expired Medication
- ◆ Disposal of Medication

General Storage and Security

Medication are chemicals and subject to physical deterioration. Most medication deteriorates more rapidly when exposed to heat and light, and thereby lose their potency and effectiveness. Depending on their chemical nature, some medication is more stable than others, and some are stable for only a few days after they are prepared by a pharmacist. Pharmacists are required to include expiration information on the prescription label if expiration dating or storage is an issue. If the medication is in a manufacturer container, the storage and expiration data will be on the label or product.

Security is also an important issue, to prevent abuse, theft, or adulteration of the medication. The institution must have a security policy according to Florida Statute 232.46.

This section discusses some of the important issues pertaining to medication storage and security.

1. General rules for medication storage

- Limit access to the medication by storing under lock and key.
- Ensure that the student has access to the medication when necessary.
- Follow storage directions on the prescription or manufacturer label.
- Avoid heat higher than room temperature.
- Avoid direct sunlight.
- Avoid exposure to moisture.

2. Storage Security

The primary reason for secured storage is to prevent access by someone other than the person responsible for medication, who may either take the medication themselves, steal it, or in some way adulterate it. Florida laws require medication to be kept in a locked, secure cabinet, cart, or refrigerator. The storage area chosen should be consistently at normal room temperature and not subject to high temperatures as a result of proximity to heating ducts, hot water pipes, or direct sunlight. To ensure access to the medication, especially in the case of an emergency, someone responsible for the security should be available at all times when students are present.



Lockable Cabinets

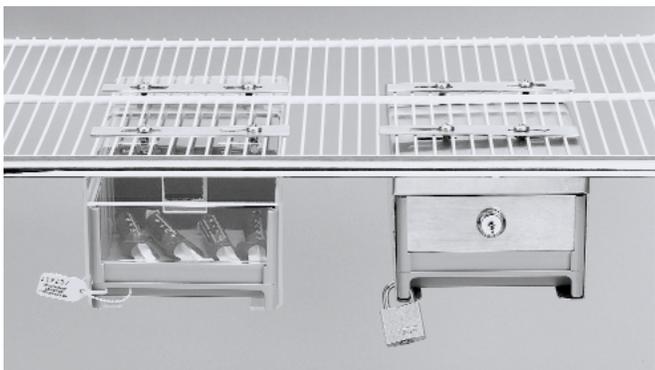
3. Questions about medication storage

Call the pharmacy that provided the prescription, or any drug information center (see Chapter 9).

Refrigerated Storage

For medication that requires refrigeration, it is preferred to have a lockable refrigerator, in a secured area with controlled access, reserved for medication storage. Food and medication should not be stored in the same refrigerator unless the food is part of a diabetes management clinic. The temperature should be monitored on a regular basis by means of a refrigerator thermometer available at most hardware stores.

If a separate refrigerator is not available a secured, lockable drawer is an acceptable alternative. Such a drawer is also a good idea for storing controlled substances which require refrigeration.



Lockable Refrigerator Storage Bins

Controlled Substances

Medication are classified by the Drug Enforcement Agency (DEA) as “Controlled” or “Scheduled” substances if they have a potential for addiction or abuse. The DEA has five schedules, CI, CII, CIII, CIV, and CV. CI medication includes illegal drugs and those only used for research in institutionalized patients therefore you will not encounter them. CII medication are usually opioid narcotics and have a high addiction and abuse potential. Some medication such as Ritalin® are not narcotics, but are classified as CII because they have abuse potential. Medication classified as Schedules CIII - CV have progressively less addiction and abuse potential.



Double Lock Storage Vaults

All medication must be kept under locked storage. Schools are advised to be aware of “CII” medication such as Tylenol with Codeine®, Oxycontin®, Percodan®, Percocet®, Morphine®, Codeine®, Dilaudid®, and Fentanyl®, and recommend keeping them under additional security. Individual doses must be recorded on a medication administration record. The inventory should be verified by two staff members when received, and audited as specified by school policy. Discrepancies in the inventory should be reported to a designated authority in the school.

Off Site (School Camps, Field Trips, etc.)

When students are “off site” at a school camp, music event, athletic event, or other type of field trip they will continue to require their medication. Medication consideration is an important early planning component to any field trip. In fact, they may require more or less medication because they will be subjected to different activity patterns, and a different environment. Further, they may require a medication not usually taken at school, or medication at a different time of day that might require a new authorization/permission slip.

Ideally the medication will be provided in a prescription container. Most pharmacists will provide a duplicate prescription container and label for school use.

If the medication requires refrigeration, it is sufficient to use a thermal container (ice chest, thermos) with ice or a cold pack. The medication should be placed in a plastic bag to prevent damage from moisture and kept in a secure location with the designated staff person.

Medication consideration is an important early planning component to any field trip.



Medication Organizer

Expired or Discontinued Prescriptions

Prescriptions for an acute illness or condition are intended for a limited period of time. For example, antibiotics are often prescribed to be taken for 5, 7, 10, or 14 days. Once this time period has transpired, medications should no longer be dispensed and any remaining medicine should be returned to the child's parent/guardian. The authors recommend sending a note which states that if the medication is not claimed within two (2) weeks it will be destroyed.

Outdated or Expired Medication

All medication containers and prescription containers should have an expiration date, or statement "don't use after - date -". If the expiration date is a "Month/Year", the U.S. Food and Drug Administration (FDA) has determined that the medication is stable until the last day of the month. The specific date is determined through scientific studies to determine when the medication deteriorates to an established fraction of labeled potency (usually around 80%). This assumes that the medication was stored appropriately and not subject to adverse conditions such as extreme heat, moisture, or direct sunlight.

If the medication supply is outdated, contact the parent/guardian for a new supply.

If you are unable to contact the parent/guardian consider calling the pharmacy or the child's physician and inform them that you have tried to contact the parent/guardian, and that the student needs a new supply of medication.

If the situation is a medical emergency, follow school policy for medical emergencies.

Disposal of Medication and Medical Devices

Medication should either be safely disposed of when it is no longer needed, or claimed by the parent or guardian. Disposable devices used to administer medication and items that are contaminated by contact with the student are considered to be a potential danger contributing to the spread of disease (eg. needles, bandages, gloves, medication cups). In addition, devices such as needles and syringes have the potential for abuse and should be considered a security risk.

Medical waste disposal methodology is controversial. Healthcare institutions (eg. hospitals and nursing homes) are regulated by eight (8) agencies or statutes, which define and regulate different types of waste and proper disposition. The following are most relevant.

1. Biomedical waste is defined by the Florida Department of Health (DOH) as waste which has been in contact with an infectious patient (student) and contains copious amounts of body fluid. Healthcare institutions are required to dispose of this waste in special red bag or red box containers labeled "Medical Biohazardous" waste, through a certified waste service.

2. Biohazardous Sharps waste is defined by the U.S. Department of Labor Occupational Safety and Health Administration (OSHA) (www.osha-slc.gov) as any contaminated object that can penetrate the skin including, but not limited to, needles, scalpels, broken glass, broken capillary tubes, and exposed ends of dental wires. Such objects are required to be disposed of in special "sharps" containers, which are rigid, puncture proof containers that can be sealed. The containers are labeled "Sharps – Infectious Biohazardous" and disposed of through a certified waste service.

3. Hazardous waste is defined by the U.S. Department of Environmental Protection (DEP), that lists chemicals, including some medication, that are dangerous to the environment. Specifically, the DEP regulates the final destination point, including incinerators and land fills, and specifies the specific chemicals, and the types of containers they must be disposed in.

Application for Schools

Medication is the property of either the school or the student (eg. personal prescription). Schools are not necessarily considered licensed healthcare facilities, therefore the same regulations do not necessarily apply. However, schools should consider the intent and sensibility of healthcare facility regulations and observe reasonable and conscientious procedures.

- OSHA (Phone: 202-219-7174) has jurisdiction over schools including: 1) Biohazardous Sharps, and 2) Biomedical blood borne contaminants.
- DEP regulates hazardous substances, however they exempt "small volume generators" (less than 100 kg (220 pounds) per month). It is unlikely that a school would be regulated.
- DOH regulates biomedical waste, defining it as contact with copious amounts of bodily fluid or waste that is known to be infected. The term "copious" is not defined, but a reasonable interpretation is a bandage that is so saturated that it drips.

Recommendations for Schools

1. Medication Disposal (non-Drug Enforcement Agency (DEA) controlled substance): It is considered acceptable practice to “waste” reasonable amounts of medication such as the medication remaining in a syringe, medicated patches removed from a student, or medication remaining in a single bottle or prescription container. This could be accomplished by flushing them down a toilet. **School policy might require that the “wasting” be witnessed by another staff member and the medication be recorded in a log (including medication name, quantity, date and witness).** Medication flushed into the sewer system are treated by harsh chemicals that are effective in destroying them. In fact many medications are excreted unchanged in the urine or feces and far more medications are introduced to the sewer systems “through the human or animal waste process” than by directly flushing unused medication. This is acceptable practice in all healthcare facilities.

2. Medication Disposal (DEA controlled substance): Once the medication is dispensed by a pharmacy, it is the property of the parent/guardian/student, and it is permissible to dispose of medication by flushing into the sewer system. **It is recommended that this be documented and witnessed by another school staff member.**

3. Sharps and other medical waste: Schools are required to use sharps containers for any medical waste which is sharp and could cause a cut or wound. Sharps containers can be purchased from a healthcare supplier. Disposal is generally arranged with a waste service under contract with the school district, however in some cities the County Health Department maintains drop off points.



Sharps Containers

Medication Administration & Preparation

- ◆ Importance of Hand Washing
- ◆ Sub-Cutaneous and Intramuscular Injection
- ◆ Allergic Reaction Kits (Epi Pen®)
- ◆ Oral Solids
- ◆ Oral Liquids
- ◆ Oral Inhaler
- ◆ Nasal Inhaler
- ◆ Eye Drops and Ointment
- ◆ Ear Drops
- ◆ Topical Medication (Creams, Ointments, Lotions)
- ◆ Rectal Suppositories
- ◆ Medicated Patches



To facilitate, supervise, or take responsibility for preparing and administering medication, consider the following:

1. Respect the student's *individuality* and learn how they like to take their medication. Hopefully the parent/guardian will have provided this information, if not, you can ask the student. Some simple things can make a big difference. For example, do they like to stand or sit. Have a glass of water or something else provided by the parent/guardian. If more than one medication is required, do they want them all at once or one at a time.
2. Respecting student *confidentiality and dignity* is important. Some students want to take their medication in private, away from view of their classmates.
3. Encouraging students to participate (eg. following oral medication with a full glass of water). This encourages them to be more *responsible*.
4. Staff who prepare and administer medication should practice good *sanitation*, which primarily means good hand washing.
5. Know the *route* of administration. Medication errors may result from making assumptions and not reading the label. For example, if the medication is a liquid in a dropper bottle, and the student has an ear ache, it could be an *ear* drop, or a concentrated *oral* antibiotic. As another example, an inhaler is designed to be inhaled through the *mouth* or *nose*, but not interchangeably. In each of these cases, doing the wrong thing will cancel the benefit of the medication and could possibly cause harm.
6. Medication must be administered within 1 hour before or after the scheduled time. Exception: Medication that must be administered in relation to meals (eg. Reglan®)

Why is hand washing so important?

For two reasons. The first is the obvious, to prevent contamination of the medication or a student. The second is not so obvious. If you handle a medication you can get a small amount on your finger. This is especially true if you are crushing a tablet, working with a topical medication, suppositories, or handling a “patch.” Then, if you rub your eyes, or scratch an “itch,” you can have a reaction to that medication. This is especially problematic with respect to the eye.

Protect the student and protect yourself.
Be conscientious about hand washing.

Considerations for Each Route of Administration

I. Oral Solids (capsules, tablets, and “pills”)

“Pills” are actually tablets or capsules. In many cases the student will be able to take the “pill” themselves, and will probably need a glass of water or a drinking fountain. Some students don’t like to swallow “pills” and will take a little time to “prepare themselves” for it. They may also want to sit down while they are taking the medication.



Tablet Crushers

Crushed “pills”: In some cases the student will be accustomed to taking the tablet or capsule after it has been crushed. This is usually done to facilitate the swallowing of very large “pills”, or to accommodate students who are reluctant to swallow medication. The parent/guardian may explain what to mix the crushed powder in or provide what they usually use (apple sauce, yogurt, pudding, ice cream, baby food, etc.). DO NOT expect a student to swallow a dry powder because it will probably cause them to gag and it will probably taste terrible.

Follow this mixture with something to drink to “wash it down”, which will also help remove any unpleasant taste.

- If the “pill” is an extended or sustained release form it should not be crushed. If you are asked to do this, double check with the school nurse or call the pharmacy that filled the prescription. Crushing this type of medication will cause a medication which is designed to be released over 8, 12, or 24 hours to be released all at once, causing an overdose. Extended release products usually, but not always, have a suffix to their name.

Suffixes Used For Controlled Release Formulations

CD	Controlled dose	TD	Time delay
DR	Controlled release	TR	Time release
CRT	Controlled-release tablet	XL	Extended release
ER	Extended release	XR	Extended release
LA	Long-acting	Duratabs	
SA	Sustained action	Exentabs	
SR	Sustained release		

- Enteric coated tablets are designed so they will not dissolve until after they pass through the stomach. This is done to either protect the medication from the harsh acids of the stomach, or to protect the stomach from an irritating medication. Enteric coated tablets should not be crushed. They often have a suffix after their name such as EC or EN.

- A capsule can usually be pulled apart and the contents emptied into a cup, dish, spoon, or other suitable container. The remaining empty capsule can be discarded. The contents can then be mixed with about a tea-spoonful of a soft food as discussed above.

CRUSHING RULES

- Check with Nurse
- Never crush sustained release
- Never crush enteric coated
- One medication at a time
- Wash implements

- A “pill crusher” can be used for an un-coated tablet. “Pill crushers” are inexpensive and available from most pharmacies. An alternative is the “two spoon” method. Place the tablet in one spoon. Place another spoon on top, both in the “up position”. Press the spoons together and manipulate them as necessary to crush the tablets. Two medicine cups can also be used, placing the tablet in one cup, and then “stacking” the other cup on top and grinding the tablet.

- If you are dealing with a coated tablet you will find it more difficult to crush. You will also find the coating mixed in with the powder. If possible, discard the coating. Then mix the powder in soft food as mentioned above, and follow with something to drink.
- Some capsules are available as “sprinkle” capsules. These are designed to be emptied into a soft food. The prescription directions will probably say something like “Sprinkle contents on soft food three (3) times a day.” Discard the empty capsule.
- A reusable device must be washed thoroughly after each use to avoid contamination and to avoid exposing someone to another person’s medication.

2. Oral Liquids

There are some general considerations for oral liquids that are usually addressed on the prescription label.

- Syrups, solutions, liquids, and elixirs can be measured and swallowed by the student without shaking. Some concentrated liquids require dilution as directed on the label.
- Suspensions must be shaken before measuring, to ensure even distribution of the medication and an accurate dose to the student.
- Antibiotic suspensions quite often require refrigeration for storage, and shaking before administration.
- Concentrated liquids (often dispensed in a dropper bottle) must be diluted, usually in water or fruit juice. Milk is usually not a good choice.

Measuring: If a medication measuring spoon is not provided consider purchasing a “medication measure”, or disposable “medication cups”. In many cases the pharmacist may have a sample spoon to give you. Be aware that a teaspoonful should deliver 5 ml. (cc.), and the average eating “teaspoon” may deliver in a range of 2.5 ml. to 8 ml.



Oral Liquid Measures

Measurement Equivalents

1 teaspoonful	5 ml (cc)
1 tablespoonful	15 ml
1 ounce	30 ml

3. Subcutaneous and Intramuscular Injection

Some students require injectable medication to control diabetes (insulin), allergic reactions (adrenalin, epinephrine), asthma, headaches, or seizures. Injections should only be self-administered by an authorized student, or given by a trained staff member (school nurse or delegate), or a responsible person who comes to the school for this purpose. In many cases the student will be able to self inject their medication. Consider the following:

Storage: Medication and syringes must be secure in a convenient place, such as the school health room or school office.

Supervision: If you are asked to supervise, consider asking the student if they remembered to clean the injection site first and if they double-checked the dose. You might also observe to see if there is enough medication left for the next dose and remind them when they need to bring more.

Disposal: Needles and syringes must be disposed using sharps containers. (See Chapter 6.) The student may have an injection device they can carry with them. They must be responsible for following school policy for proper disposal.

4. Allergic Reaction Kits (EPI PEN®, EPI PEN Jr.®, ANA-KIT®)

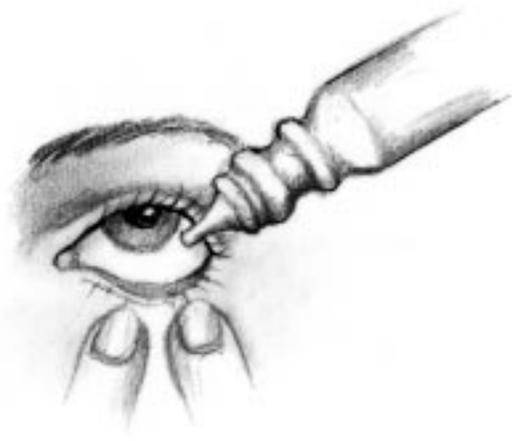
School policy will differ on whether these automated injection devices can be administered by a non-medically trained person and under what circumstances. (See Chapter 3 for sample policy). **When the need is established it is important to administer the medication as quickly as possible.**

1. Select a muscular area to administer the injection, usually the thigh or fleshy part of the shoulder.
2. Clean the area with an alcohol swab, or soap and water. However in an emergency the injection can be administered through clothing as discussed in the product package insert.
3. Load or prime the device as indicated on the package instructions.
4. Administer the medication according to protocol, usually by pressing the device against the skin at a right angle and activating an automatic spring loaded device that will inject the medication.
5. Have the student sit or lie down and call the school nurse, a guardian, or a medical contact listed for the student in their school record.
6. Dispose of the device as a biological waste using a “Sharps” container.
7. Notify parent/guardian to provide a replacement.
8. Always call 9 1 1 when used.



5. Oral inhaler

- The student may be able to self-administer the inhaler. If asked to supervise consider the following:
- Ask the student if they would rather stand or sit.
- Encourage them to relax and take their time .
- Ask if they know how many “puffs” to use, which is usually one or two.
- Remind them to clean the mouthpiece before and after using.
- If they use a “spacer” they should rinse out the spacer after each use to prevent medication build up.
- Remind them to “shake” the container for 30 seconds.
- Ask if it worked, if they can breathe better now, or if they’re OK now.
- Wait 2 – 4 minutes between repeat doses.
- Suggest that they take a drink of water to rinse their mouth.



Instilling Eye Drops
Without Touching the Eye

6. Nasal inhaler

Nasal inhalers are not as common as oral inhalers, but generally work the same way. The port is much smaller, and the student will probably be able to self-administer following the same general guidelines for oral inhalers except, the student should:

- Sit upright when they use the inhaler.
- Insert the inhaler in one nostril, and gently press the other nostril closed.
- Shake between uses.
- Clean the nosepiece before and after each use.

7. Eye drops and ointment

Some students can administer their own eye drops and ointments, others require assistance. Eye drops and ointments are not administered directly to the eye itself, rather they are placed on the lower lid, which then transfers the medication to the eye as demonstrated in the diagrams. Follow these directions.

- Wash your hands first.
- Tilt head back or lie down.
- Don’t touch the eye with either your hand or the medication container (this requires a steady hand). This is important for two reasons, 1) to avoid contaminating the eye directly, 2) to not contaminate the container, which could then contaminate the other eye, or hold the contamination and re-infect the eye at a later time.
- Give the dose specified on the prescription. The usual dose is one or two drops of solution, or about a 1/4 inch ribbon of ointment on the edge of the lower lid.
- Following application ask the student to keep their eye closed while they count to ten.



Instilling Ophthalmic Ointment
Without Touching the Eye

Exemption: Many students will use eye drops associated with contact lenses. We recommend that your school policies exempt these from your medication restrictions and allow students to self-administer as necessary.

8. Ear drops

Students will probably need help with ear drops. The following is recommended:

- Wash your hands.
- Ask the student to lay their head on a desk or table with their ear pointed up.
- If the ear drop is a “suspension” (it will say suspension on the label, and is cloudy in appearance) gently shake it. If it is a “solution” (it will say solution on the label and is clear in appearance) administer without shaking.
- Fill the dropper to the designated amount.
- Gently pull “out” on the ear lobe to create a better angle for the ear canal.



Instilling Ear Drops
Without Touching the Ear

- Without touching the ear with the dropper place the prescribed number of drops in the ear.
- Ask the student to sit still for a minute while the drops work their way down into the ear.
- Place a piece of cotton or gauze in the outer part of the ear to stop the drops from running out. Do not jam it into the ear because it could damage the ear, and it will soak up the medicine intended for the ear. This can be removed after a couple of minutes.

9. Topical Medication (creams, ointments, lotions)

Creams are water based, and generally clean up easily with soap and water. They are usually applied with little rubbing, and are quickly absorbed into the skin. Lotions are essentially more fluid or “thinner” creams, and are usually applied to the skin with more rubbing, until they are mostly absorbed. Ointments are oil based, and therefore greasy. Ointments are usually applied with little rubbing and are designed to protect the skin or wound.

Unless the student is in your care for more than a normal school day, you will probably not be expected to be involved with topical medications. These are generally antibiotics or steroids, and are usually used for infections, rashes, allergic reactions, burns, etc.. If the area or wound is extensive, a school nurse should apply the medication, or the parent/guardian should come to the school at a designated time. Important considerations are:

- Follow the directions for the amount to apply (eg. sparingly).
- Follow the directions for how to apply (eg. do not rub).
- Only if directed, wash the area before applying the medicine, using a mild soap.
- Do not touch the medication container to the affected area to avoid contaminating the container.
- The person applying the medication should wash their hands before and after applying. Latex or polyvinyl disposable gloves are also recommended.
- If a covering is required, it should be supplied by the parent/guardian. Do not reuse coverings or bandages which are in direct contact with the affected area.
- If the treatment area is a contagious rash avoid touching the area. Allow the student to apply an “anti-itch” lotion as needed (usually every 3 or 4 hours) and wash hands afterward.
- Students need authorization to carry and self-administer topical medication for acne, athlete's foot, and other athletic related fungal infections such as “jock itch”.

10. Rectal Suppositories

Suppository administration requires training. Some general rules for administering suppositories follow:

- The person inserting a suppository should not have a long nail on the finger used for insertion.
- Be sure to wash your hands before and after insertion.
- Remove the suppository from the wrapper. The suppository should have a “slippery” feel.
- Wear a latex or polyvinyl glove or use a “finger cot” when inserting the suppository.
- Have the student lie on their side with their back to you, and raise their top leg. Or you can have the student bend over your knee with their legs spread.

- It usually helps to lubricate the suppository by dipping it in water or coating it in “Vaseline”, however that is not necessary.
- Insert the suppository just past the rectal sphincter no further than the first joint in your finger. The rectum will contract and the suppository will naturally move up the colon.
- Ask the student to hold their legs together for a minute to facilitate this.

11. Medicated Patches

Medication patches are generally designed to provide a continuous supply of medication through the skin for several days at a time. If the patch falls (or is pulled) off consider the following:

- The student can probably go for a couple of hours without needing the patch.
- If the area is clean and the patch will stick ask the student to replace it.
- Always wash your hands after handling a medicated patch.
- If the area is dirty have the student wash it and replace the patch as discussed above.
- If the patch will not stick, or you don't think it is appropriate to replace it, you can put the patch in an envelope and send it home to the parent/guardian along with a note explaining what happened.
- Medicated patches have an abuse potential, especially if they contain nicotine or pain medication. They are also a potential way to spread infection. Dispose of them as a biohazardous waste.



Medical Symptoms & Adverse Events

- ◆ Types of Problems
- ◆ Action Plan –
Emergency Priority
- ◆ Symptoms
- ◆ Which Medication is the
Culprit?
- ◆ Medication that Discolors
Urine, Feces, etc.
- ◆ Published Reports on
Adverse Medication Events:
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 - *Types of Medication
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 - *Institute of Medicine (IOM)
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Imperative (MHI)*
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Council for Medication Error
Reporting and Prevention
(NCCMERP)*
 - *Institute for Safe Medication
Practices ((ISMP)*
 - *Agency for Healthcare
Research and Quality Report
on Adverse Drug Events*

Types of Problems

When medication is used as prescribed (ordered) there are usually no problems, but not always. Medication related problems are usually categorized in of the following ways.

1. An allergy to the medication has developed and the body's immune system is trying to combat the medication. This can result in a reaction which varies from a mild rash and itching to major swelling which closes the breathing airways and is life threatening.
2. The medication is not providing the desired effect and the medical condition is not being controlled. This can be the result of a dose that is too high or too low, the body has developed a tolerance, an infection has developed a resistance, or the person is not taking their medication (non-compliance).
3. Side effects of the medication are causing noticeable problems. These are also called adverse reactions or adverse events. Some adverse reactions are caused by a medication acting in undesirable parts of the body and sometimes they are caused by a medication having too much of an intended effect either because the dose is too high, or the student is highly sensitive to the medication.

Action Plan – Emergency Priority

When you notice problems that appear to be related to the medication do one of the following:

1. If it is life threatening call for emergency assistance according to school policy. This may authorize calling 9 1 1. Then call the emergency contact as designated by school policy.
2. If the condition is serious but not life threatening call the parent or guardian or emergency contact as designated by school medication policy.
3. If the condition is noticeable, but not serious, call the parent or guardian and suggest that the student be evaluated by their physician. A student at school is subject to more stimulation than in a more casual home environment and sometimes they require a different dose of medication. This is especially true for students with asthma, diabetes, seizure disorders, and attention deficit disorders.

Symptoms

The following are some common symptoms that you may notice and that can *potentially*, but not always be related to medication therapy. There are many other symptoms which are less common. Report anything that you observe as abnormal and that you cannot explain as a possible problem related to medication. If the symptoms are causing distress for the student you should follow school policy for seeking help. If there is no distress, and the problem persists notify the school nurse or the student’s parent or guardian. If a symptom is obvious enough to be noticed or serious enough to generate a complaint from the student, it is serious enough to report.

Which Medication is the Culprit?

Some general medication classifications are listed, which may be confusing to a non-medically trained person. A better method may be to look up the medication the student is taking in Chapter 11, which lists possible side effects and adverse reactions. It is more important to report your observation than to try to diagnosis the cause.

It is more important to report your observation than to try and diagnose the cause.

<i>Symptom</i>	<i>Common Cause</i>
Skin: Rash or redness	<p>Possibly an allergic reaction that may or may not develop into a more serious reaction. Therefore someone should be notified before it becomes worse. If a high fever is also present, then it is more likely to be the beginning symptoms of an infection, possibly contagious and the school nurse should be notified.</p> <p>Possible medication: Antibiotics, Anti-viral, Anti-depressants, Hypoglycemic (diabetes), Diuretics (blood pressure), Anti-convulsants, and Anti-inflammatory steroids.</p>
Skin: Puffiness or swelling	<p>If it <i>appears suddenly</i> it is probably an allergic reaction to medication, environmental irritants, or food. This is serious, especially if the swelling affects swallowing or breathing. Possible Medication: Antibiotics.</p> <p>If it <i>appears slowly over several days</i> it is probably the result of a steroid medicine commonly used by cancer patients, and diseases of the immune system. This is called “Cushing’s Syndrome” and it will resolve after the medication is discontinued.</p>
Skin: Itching	<p>Probably an allergic reaction to medication, environmental irritants, or food. It can also be the side effect of some medication, however this is rare.</p>
Breathing: Shallow breathing, rapid gasping, panting.	<p>Breathing is rapid and ineffective, thereby causing oxygen deficiency that leads to more rapid breathing. It is usually the result of an allergic reaction or physical exertion when the student has not taken sufficient asthma medication. Wheezing or rattling sounds may also be present indicating excessive fluid in the lungs. This can be the result of insufficient respiratory medication, and can be serious if it does not resolve after a few minutes of rest. In small students it can be caused by high doses of antipyretic (fever) medicine such as aspirin.</p>
Breathing: Slow breathing.	<p>Slow breathing (fewer than 12 breaths per minute) may be a side effect from medications such as analgesics or antidepressants. If the problem persists for more than a few minutes or the student starts gasping for breath, someone should be notified immediately.</p>
Heart: Chest pain	<p>Chest pain is usually not caused by prescription medications, but it is serious and someone should be notified. If the pain is caused by a skeletal muscle problem the pain will vary as the arm is moved. If it is a heart condition it is usually caused by decreased oxygen to the heart that is probably triggered by exercise and stress. The student should be allowed to rest and if the problem does not resolve in a few minutes, or gets worse, someone should be notified immediately.</p>

<i>Symptom</i>	<i>Common Cause</i>
Heart: Rapid or Slow Pulse	<p>The normal pulse is considered to be 60 beats per minute, but it varies with each individual, and with their level of activity. Young students may have a higher pulse, with 80 – 90 beats per minute being acceptable.</p> <p>Rapid heart rate that is unrelated to exercise, or doesn't return to normal after exercise may be caused by bronchodilators (asthma), cardiac medication, or cold remedies containing phenylpropranolamine. It is more likely caused by excessive use of caffeine, “stimulant diet pills”, or other stimulants.</p> <p>A slow or fast heart rate could also be the early symptom of more serious heart problems. Someone should be notified.</p>
Heart: Palpitations	<p>Palpitations are an irregular heart beat often triggered by the strain on the heart and added need for oxygen during exercise. It is sometimes felt as a throbbing sensation often in the chest or upper arm. This is usually not the side effect of a prescription medication; however, anti-depressants, anti-spasmodics (intestinal disorders), bronchodilators (respiratory), and anti-histamines can sometimes cause palpitations. Palpitations are more likely caused by excessive use of caffeine, “stimulant diet pills”, or other stimulants. Palpitations could also be the early symptom of more serious heart problems. Someone should be notified.</p>
Blood Pressure: Low	<p>Dizziness, light headedness, and fainting can be symptoms of low blood pressure. If the student is taking medication for blood pressure, they should see their physician to have the dose adjusted. Low blood pressure can be caused by several medications, especially those used for ADD/ADHD, seizures and headaches.</p>
Blood Pressure: High	<p>Dizziness, headaches, and blurred vision can be symptoms of high blood pressure. High blood pressure is usually not the side effect of a prescription medication, but it could be caused by excessive use of caffeine, “stimulant diet pills”, cold remedies containing phenylpropranolamine, or other stimulants. If the student is taking medication for blood pressure, they should see their physician to have the dose adjusted.</p>
GI: Diarrhea	<p>Diarrhea is a serious problem, especially if it persists. It has many causes, including infections, food poisoning, and adverse reactions to medication such as antibiotics, oral antifungals, and antacids which are high in magnesium. Diarrhea can lead to serious dehydration and electrolyte loss.</p>
GI: Upset Stomach, Nausea, and Vomiting	<p>Several things can irritate the stomach and gastro-intestinal track resulting in symptoms as mild as an upset stomach (called heartburn) to nausea and vomiting. Probable causes include food and stress, but several medication classes are also likely to irritate the GI tract, including antibiotics (especially “mycins”, eg. erythromycin), anti-convulsants, oral anti-fungal, analgesics (eg. aspirin, ibuprofen), steroids, hypo-glycemics (diabetes), ADD/ADHD, and cancer medication.</p>
GI: Constipation, Cramps	<p>Constipation that in turn can cause abdominal cramps, can be caused by several things, including such medication as antacids that are high in aluminum, anti-depressants, and narcotic analgesics (eg. Tylenol with Codeine®, Percodan®).</p>
GI: Dry Mouth	<p>Dry mouth is usually corrected by allowing the student access to water and other fluids. Several medications can cause this, including antihistamines, anti-depressants, anti-spasmodics (intestinal disorder), and sedatives. Excessive, persistent dry mouth can be relieved by sucking on hard candy, or frequent sips of water.</p>

<i>Symptom</i>	<i>Common Cause</i>
Bruising, Bleeding	Students receiving anti-coagulants (blood thinners), or cancer patients may have problems with slow blood clotting. This may be observed as easily bruising, bleeding gums, nose bleeds, or blood in their feces or urine. This problem can be aggravated by taking aspirin or NSAIDS such as ibuprofen. It can also be aggravated by diet changes. It probably indicates that the dose of the medication needs to be adjusted, which happens frequently. In all cases, someone should be notified.
Mental: Drowsiness, Lethargy, Depression	Alcohol, excessive dieting, excessive exercise, and other excessive changes in life style can contribute to drowsiness. Several medications can cause drowsiness. Analgesics cause drowsiness in two ways, one by directly sedating the brain, and the other by removing the pain stimulus which may have been keeping the student awake. Other medications include anti-anxiety drugs, anti-depressants, anti-histamines, sedatives, and cough suppressants which contain alcohol or codeine.
Mental: Confusion	Anti-anxiety medication may contribute to confusion.
Nervous System: Numbness, Tingling Sensation, Twitching.	Anti-viral medication, diuretics (blood pressure), and hypoglycemic (diabetes) medication can occasionally cause numbness and tingling (usually in the fingers) or twitching (usually in the face, arms, or legs). This is usually a temporary effect which goes away when the medication is discontinued, or the dose is adjusted.
Visual: Blurred vision.	This is normal with some eye drops and all eye ointments. Some medications can cause blurred vision, including analgesics (pain), anticholinergic medication for GI and ulcer patients, anti-histamines, and anti-depressants. This may interfere with school work, and the eye strain may in turn cause headaches. Blurred vision is potentially serious if it is associated with a head injury, but if it's medication related, it can probably be easily corrected, therefore someone should be notified.
Visual: Dry, Itchy Eyes	This can be caused by problems with contact lenses, or by allergies. It can also be a common side effect with some anticholinergic medication for GI patients, anti-depressants, or opium based pain medication (eg. Tylenol with Codeine®).
Fainting	See Heart, and Blood Pressure Section. Medication which can cause fainting include heart and blood pressure medication and anti-depressants.
Dizziness, Disorientation	See Heart, and Blood Pressure Section. Dizziness is a general disorientation, usually related to lack of blood to the brain, or insufficient oxygen in the blood. Medication that can cause dizziness include antihypertensives (blood pressure), heart medication, analgesics (pain), anti-convulsants, bronchodilators (asthma), and antihistamines (allergies).
Coordination Problems, Clumsiness	Persistent poor hand/eye, or foot/eye coordination can be caused by several things, including head injury. Medication that may aggravate this condition include sedatives (usually a hang over effect), antihistamines (some of them are sold as over the counter sleep aids), and analgesics (pain).
Hyperactivity, Agitation	Hyperactivity is a common problem with many students and can be a very complex condition. It can be temporary or sporadic, related to how much activity there is, or how much caffeine the student has consumed. The student may require medication to control the hyperactivity, or if already taking medication, they may require a dosage adjustment by their physician.

<i>Symptom</i>	<i>Common Cause</i>
Headaches	There are many types of headaches, each with a different cause and treatment. Some medication that may contribute to headaches include caffeine, anti-convulsants (for seizures), anti-depressants, oral anti-fungal medication, bronchodilators (respiratory), and beta blockers (heart). If headaches are frequent or persistent the student should seek help.
Hearing Loss	Hearing loss, whether sudden or gradual, should be reported. Several things can cause hearing loss and most are very serious. Some medication, such as aspirin and NSAIDs (ibuprofen and other -profins) taken in high doses over several weeks can cause tinnitus (ringing in the ears) which gradually can become hearing loss. Any hearing problems should be reported.
Depression	Depression is a complicated medical diagnosis which requires a complex treatment plan. Medication that can contribute to depression include anti-anxiety medication, sedatives, and anti-depressants at insufficient doses.
Joint Pain	An arthritic like joint pain can be caused by arthritis, and juvenile onset arthritis is not uncommon. Some medications in the antibiotic class have been reported to cause joint pain.

Medication that Discolors Urine, Feces, or Tongue

Feces	Black/Tarry	Acetazolamide Aluminum hydroxide Aminophylline Amphetamine Amphotericin B Bismuth salts Chlorpropamide Clindamycin Corticosteroids Cyclophosphamide Cytarabine Digitalis (digoxin) Ethacrynic Acid Ferrous (Iron) salts Fluorouracil Hydralazine Hydrocortisone Iodide – Iodine containing medication Melphalan Methotrexate Methylprednisolone Phenylephrine Potassium salts Prednisolone Procarbazine Sulfonamides Tetracycline Theophylline Thiotepa Triamcinolone Warfarin	Urine	Black/Dark Brown	Cascara Sagrada Chloroquine Ferrous (Iron) salts Metronidazole Nitrofurantoin Quinine Senna
			Urine	Blue	Triamterene
			Urine	Blue/Green	Amitriptyline Methylene blue
			Urine	Orange/Yellow	Heparin Phenazopyridine Rifampin Sulfasalazine Warfarin
			Urine	Red/Pink	Daunorubicin Doxorubicin Heparin Ibuprofen Oxyphenbutazone Phenylbutazone Phenytoin Rifampin Senna
			Tongue	Black	Pepto-Bismol
Feces	Blue	Chloramphenicol Methylene blue			
Feces	Green	Indomethacin Medroxyprogesterone			
Feces	Yellow/Green	Senna			
Feces	Orange/Red	Phenazopyridine Rifampin			
Feces	Pink/Red	Warfarin Heparin Aspirin Barium Oxyphenbutazone Phenylbutazone Tetracycline Syrup			
Feces	White/Speckling	Antibiotics Barium			

Published Reports on Adverse Medication Events: Reactions, Noncompliance & Errors

Adverse Medication Events (AME) are also referred to as medication related problems (MRP) and “medication misadventures”. They are generally classified as allergic or medication reactions, medication errors, or non-compliance (non-adherence) to the prescribed therapy plan. Each contributes to a huge problem in the United States, and indeed, the entire world.

... the impact of noncompliance and errors has been estimated at \$125-172 billion per year in the U.S.

Medical economists have projected that medication errors and non-compliance to therapy costs our nation much more than what we spend for the medication itself. The U.S. gross national product for prescription medication is approximately \$95 billion, while the

impact of non-compliance and errors has been estimated at \$125 - 172 billion. (The Business and Health 1998 Special Report, *Business and Health*) On page 16 of the same report it is documented that more than 20% of all prescriptions are never filled, and of those that are, as many as 50% are taken inconsistently or not at all. These statistics are for the entire U.S. population. The situation may be worse for students who are dependent on others for their medication.

A study conducted by the University of Arizona estimated the cost impact of medication non-compliance and errors for ambulatory patients to be \$76.6 billion per year in the United States. (Johnson JA, Bootman JL, Drug-related morbidity and mortality: a cost-of-illness model. *Archives of Internal Medicine*, 1995; 155:1949-56.) That study was repeated by the University of Arizona, and estimated the current cost impact to be \$177.4 billion, including 218,000 deaths per year. (Ernst FR, Grizzle AJ, Drug-related morbidity and mortality: updating the cost-of-illness model. *Journal of the American Pharmaceutical Association*, 2001, March/April, vol.41, no.2, pp192-199) These studies are limited because they only estimate the direct cost of additional healthcare and do not include such indirect costs as low productivity and absenteeism, factors that could more than double the financial impact. It is important to note that the study parameters were limited to the traditional ambulatory practice healthcare providers and do not include school health programs.

The study surveyed 649 school nurses throughout the United States and found that 5.6% of students receive medication at school each day, 75% of which are administered by non-nursing staff, and the error rate is 3.1 times greater for non-nurses than for nurses.

“Medication Errors Abound at Schools” according to a study conducted by Ann McCarthy at the University of Iowa. (*Journal of School Health*, November 2000). The study surveyed 649 school nurses throughout the United States and found that 5.6% of students receive medication at school each day, 75% of which are administered by non-nursing staff, and the error rate is 3.1 times greater for non-nurses than for nurses. In schools where unlicensed personnel dispense medication, the individuals most commonly performing that function were secretaries (66.2%), health aides (39.7%), teachers (37.9%), and others (37.7%). The study identified the types of errors as missed doses (80%), dosing errors (22.9%), giving medication without authorization (20.6%), giving the wrong medicine (20%), and unspecified mistakes (29.8%). The study identified two school policies as contributing to the problem, specifically policies related to medication self-administration, and the use of over the counter (OTC) medications.

Types of Medication Related Problems

The following are examples of specific types of medication related problems documented in healthcare literature that may also occur in schools:

- Not taking scheduled medications.
- Not taking “as needed” medications.
- Not having access to self-administered medications.
- Administering the wrong dose of a medication, either through error, or because the most current dosing schedule has not been provided to the school.
- Administering medications when not required, not indicated, or after the prescription has been discontinued.
- Administering a medication to the wrong student.
- Administering a sub-potent medication dose as the result of improper storage, or the medication has exceeded its expiration date.
- Incorrect measuring of the dose.
- Inappropriate administration, such as the wrong route (oral drops in the ear), wrong time (acid unstable medications given during a meal), or crushing enteric-coated or sustained-release medications.
- Failure to provide proper supportive measures, such as plenty of water.
- Failure to use proper technique, causing contamination.
- Problems associated with food and medication interactions, leading to inactivation of the medication or other complications.
- Problems associated with poor nutritional status contributing to poor medication absorption and activity.

Causes of Medication Noncompliance Errors

W. Insull (*Journal of Internal Medicine*, 1997; 241:317-325) lists several reasons for medication non-compliance. Those that relate to the school environment are:

- Compatibility of administration regimen with daily routine.
- Medication effects are incompatible with daily lifestyle preferences.
- Number of daily doses.
- Patient's knowledge of the disease and treatment.
- Patient's attitude toward medication treatment.
- Patient's psychological state.
- History of noncompliance.
- Strength of patient-therapist relationship.
- Age; adolescents may rebel against any regimen.

Institute of Medicine (IOM) Reports and Recommendations on Medication Errors

(Washington: National Academy Press or www.iom.edu)

The Institute of Medicine (IOM), a division of the American Academy of Science, commissioned by the U.S. Department of Health and Human Services has taken notice of medication related problems nationwide. On March 6, 2001, the IOM released a paper titled "Crossing the Quality Chasm: A New Health System for the 21st Century", that builds on their 1999 paper titled "To Err Is Human: Building a Safer Health System". They argue that the U.S. health care system needs

overhaul because too many people suffer or die because of inappropriate or inadequate healthcare delivery. They cite the 1999 Center for Disease Cause of Mortality list that identifies preventable medication errors as the number five cause of death in the U.S., ahead of breast cancer and AIDS. The IOM reports outline a five part strategy for improving the quality of healthcare in the

United States. In response, the 2001 U.S. congress is considering five (5) bills that will mandate medication error reduction and error reporting. It is reasonable to assume that school health systems will be included along with all other public healthcare services. The IOM strategy is as follows:

1. "Commit to making significant improvement in six areas integral to high-quality care. Every health care institution, practitioner, purchaser, and regulator must strongly commit to making care (1) safe, (2) effective, (3) patient centered, (4) timely, (5) efficient, and (6) equitable."
2. "Adopt a new set of principles to guide the redesign of care processes (1) use continuous healing relationships, (2) customize care on the basis of patients' needs and values, (3) give patients control over their care, (4) share clinical knowledge and medical information with patients, (5) make clinical decisions on the basis of the best scientific evidence, (6) make the system as safe as possible for patients, (7) make information available to patients so that they can make informed decisions..., (8) anticipate patients' needs rather than react to them, (9) do not waste resources or patient time, and (10) cooperate more so that clinicians appropriately exchange information and coordinate care."
3. "Develop evidence-based approaches to care for common conditions."
4. "Create organizational processes that will support changes in the delivery of care."
5. "Change the health care environment to one that fosters and rewards improvement."

Millennium Health Imperative (MHI)

(www.mhi.org, or www.projectleapfrog.org)

An independent group of industry leaders created an independent commission to evaluate the claims of the IOM reports. They generally agree, but are concerned that relying on the existing healthcare structure could "take decades to effect change". The MHI developed a six (6) part plan designed to "leapfrog" ahead of the IOM initiative. It is important to state that the IOM recognizes and fully supports the MHI efforts. The key components of their "Leapfrog Initiative" are the following.

1. Increase patient (student) safety and reduce errors.
 - Define standards of care and disseminate them broadly throughout the health care system so groups of providers can measure and continuously improve their performance. Then, mandate/provide public reporting of core safety metrics.
 - Develop (treatment) pathways for certain high-priority, high-volume patient conditions.
 - Mandate computer systems embedded with knowledge content and patient safety alerts and other technology solutions in order to reduce medical error and clinical variance.

... 1999 Center for Disease Cause of Mortality list that identifies preventable medication errors as the number five cause of death in the U.S.

Millennium Health Imperative 6 Part Plan

1. Increase Patient Safety
2. Reduce Fragmentation
3. Create Efficiencies
4. Harness the Power of Information Technology
5. Create True Patient Accountability
6. Bolster the Workforce

2. Reduce fragmentation.

- Commit to common nomenclature that will allow the interchangeability of data and knowledge.
- Develop a common patient identifier across a single common geographic system of care.
- Provider systems should be interconnected.

3. Create efficiencies and scale.

- Redesign processes and use automation to eliminate or minimize today's inordinate and shocking reliance on paper in both the care setting and support venues.

4. Harness the power of information technology.

- Health Care Finance Administration (HCFA)/Centers for Medicare Services (CMS) should institute a "capital pass-through" incentive for spending on appropriate automation technologies.
- Private employers should seek opportunities to invest with selected providers.
- Information technology companies must under-promise and over-deliver in bringing needed solutions to the health care sector.

5. Create true accountability.

- Designate consumers (patients/students) as the primary accountable party for their own care.

6. Bolster the health care workforce.

- Re-examine and revamp training of the health care workforce to address the silo mentality of most disciplines.
- Accelerate use of automation, both information technology and robotics, to allow professionals to better utilize their skills (vs. being mired in paper-based administration) and to enhance productivity, job satisfaction and recruitment/retention.

National Coordinating Council for Medication Error Reporting and Prevention (NCCMERP)

(www.nccmerp.org)

The National Coordinating Council for Medication Error Reporting and Prevention (NCC MERP) is an independent body comprised of 20 national organizations. In 1995, USP spearheaded the formation of the National Coordinating Council for Medication Error Reporting and Prevention. Leading national health care organizations are, for the first time, meeting, collaborating, and cooperating to address the interdisciplinary causes of errors and to promote the safe use of medications.

The Council defines a "medication error" as follows:

"A medication error is any preventable event that may cause or lead to inappropriate medication use or patient harm while the medication is in the control of the health care professional, patient, or consumer. Such events may be related to professional practice, health care products, procedures, and systems, including prescribing; order

communication; product labeling, packaging, and nomenclature; compounding; dispensing; distribution; administration; education; monitoring; and use."

The Council urges medication errors researchers, software developers, and institutions to use this standard definition to identify errors.

NCC MERP Index for Categorizing Medication Errors

- Category A: Circumstances or events that have the capacity to cause error
- Category B: An error occurred but the error did not reach the patient (An "error of omission" does reach the patient)
- Category C: An error occurred that reached the patient but did not cause patient harm
- Category D: An error occurred that reached the patient and required monitoring to confirm that it resulted in no harm to the patient and/or required intervention to preclude harm
- Category E: An error occurred that may have contributed to or resulted in temporary harm to the patient and required intervention
- Category F: An error occurred that may have contributed to or resulted in temporary harm to the patient and required initial or prolonged hospitalization
- Category G: An error occurred that may have contributed to or resulted in permanent patient harm
- Category H: An error occurred that required intervention necessary to sustain life

Category I: An error occurred that may have contributed to or resulted in the patient's death

Institute for Safe Medication Practices (ISMP)

(www.ismp.org)

The Institute for Safe Medication Practices (ISMP) is a non-profit organization that works closely with healthcare practitioners and institutions, regulatory agencies, professional organizations and the pharmaceutical industry to provide education about adverse drug events and their prevention. The Institute provides an independent review of medication errors that have been voluntarily submitted by practitioners to a national Medication Errors Reporting Program (MERP) operated by the United States Pharmacopoeia (USP) in the USA. Information from the reports may be used by USP to impact on drug standards. All information derived from the MERP is shared with the U.S. Food and Drug Administration (FDA) and pharmaceutical companies whose products are mentioned in reports. The Institute is an FDA MEDWATCH partner and regularly communicates with the FDA to help to prevent medication errors. The Institute encourages the appropriate reporting of medication errors to the MEDWATCH Program.

ISMP is dedicated to the safe use of medications through improvements in drug distribution, naming, packaging, labeling, and delivery system design. The organization has established a national advisory board of practitioners to assist in problem solving.

Agency for Healthcare Research and Quality Report on Adverse Drug Events

(www.ahrq.gov/ual/aderia/aderia.htm)

The Agency for Healthcare Research and Quality (AHRQ) report on April 12, 2001 summarizes several other reports pertaining to adverse drug events. According to this report adverse drug events (ADE) result in more than 770,000 injuries and deaths each year. The report summarizes successful approaches that have been published. Those national trends that could be relevant to school health services are listed as follows:

- Medication errors occur at any point in the medication administration process ... however, a majority of errors occur during the ordering and administration stages. The most common errors are missed dose, wrong technique, duplicate therapy, and preparation error. The most common causes of errors are illegible or incomplete directions, equipment failure, and inadequate monitoring.

- From 28 percent to 95 percent of ADEs can be prevented by reducing medication errors through computerized monitoring systems.
- Computerized medication order entry has the potential to prevent an estimated 84 percent of dose, frequency and route errors.
- ADEs can result in a number of different physical consequences, ranging from allergic reactions to death. One study estimated that 9.7 percent of ADEs caused permanent disability.
- Anticipating who will suffer an ADE, when, and from what medication is difficult.
- Medication type is not currently a predictor, either. All medication have side effects...
- The most common patient reactions to medications are rash, change in breathing or heart rate, change in mental state, seizure, anaphylaxis (shock), diarrhea, or fever.

AHRQ recommendations for creating a safer medication delivery system include the following:

- Create a better atmosphere for reporting ADEs that reduces the fear of repercussions or punishment.
- Improve incident reporting systems.
- Improve nursing medication administration charting and monitoring systems.

Information Resources

- ◆ Healthcare Providers
- ◆ Poison Control Centers
- ◆ Drug Information Centers
- ◆ Hospitals
- ◆ Disease Focused Organizations
- ◆ Local Professional Organizations
- ◆ Web Sites

NOTE: All phone numbers and website are subject to change.

Healthcare Providers

Determine the student's health-care provider from the student health profile, or prescription label.

Poison Control Centers

Poison Control Centers are funded and designated by the State. They are usually listed on the inside front cover of the phone book as an "Emergency Number," under "Poison," or under "Hospitals." All hospitals are required to post the number of the local Poison Control Center, so you can call your local hospital pharmacy or emergency room and ask for the phone number. You can usually call a drug information center for poison information as well as drug information.

- **National Poison Control Number: 800-222-1222**
- **Florida Statewide Poison Control: 800-282-3171**
- **Florida Poison Information Center (FPIC): www.fpicn.org**
- **American Association of Poison Control Centers (AAPCC): www.aapcc.org
www.aapcc.org/director2.htm**

Drug Information Centers

You can call a hospital pharmacy and ask for the regional Drug Information Center. In Florida, the following are designated centers. There are also several web sites devoted to general drug information, however the information they provide is not edited, and may not be accurate.

University of Florida, Gainesville
352-395-0408
email: doering.pharmacy@shands.ufl.edu

VA Medical Center, Miami
305-324-3237

University Medical Center, Jacksonville
904-549-4095
email: thanh.hogan@jax.ufl.edu

Hospitals

Hospitals are listed in the phone book, and many have their own website.



Disease Focused Organizations

Disease focused organizations can provide good healthcare information, usually in the form of books, pamphlets, guest speakers, or professional contacts. Many diseases have a representative organization, such as the American Cancer Society, American Diabetes Association, American Heart Association, etc..

There are several ways to find these organizations. Many are listed in the phone book under the disease they represent, for example the American Cancer Society will probably be listed under “Cancer,” however each phone company differs. You can search the internet using key words which include the following: “disease name + association,” “disease name + society,” “disease name + organization” or just the “disease name.” You can also call the local hospital Public Relations, or Social Services department and ask for their help. They will be familiar with most of these organizations.

Local Professional Organizations

Professional organizations can provide good healthcare information and can work in partnership with the school for such things as career counseling, special speakers in class presentations, or sites for field trips. For information on organizations relating to pharmacy, nursing, physicians, respiratory therapy, psychosocial, physical therapy, etc. call a local hospital and obtain this information from the respective department. For example, the pharmacy will give you the phone number of the state pharmacy associations.

Bibliography of Web Sites

Florida Dept. of Education Annotated Bibliography,
Coordinated School Health
www.firn.edu/doe/commhome/

Florida Statutes and Regulations

Florida Statutes
www.myflorida.com

Florida Department of Health
www.doh.state.fl.us

Florida Department of Education
www.fldoe.org

School Health Oriented

National Association of School Nurses (NASN)
www.nasn.org

National Association of State School Nurse Consultants
(N A S S N C)
www.nassnc.org

Children’s Medication
www.usp.org/did/children/principles.htm

School Health Issues – American Academy of Pediatrics
www.schoolhealth.org

School Nurse Resources
www.ferndale.wednet.edu/nurse

American School Health Association
www.ashaweb.org

Health is Academic
main.edc.org/theme/health.asp#school

Indiana University Prevention Resources, Drug Education
and Health Education Materials
www.drugs.indiana.edu

Program for Refining Education Partnerships (PREP)
www.sedl.org

Medical advice for lay public and teachers
www.webmd.com

National Assembly for School-Based Health Care
www.nasbhc.org

Medicine/Drug Information

www.drugfacts.com/

www.rxlist.com

www.my.webmd.com/drugs.com

www.intelihealth.com
go to “drug resource center”

www.druginfonet.com

Government Agencies

National Institute of Child Health and Human Development
www.nih.org

National Health Information Center
(National Institutes of Health)
www.nhicnt.health.org
www.nih.org

Centers for Disease Control and Prevention (CDCP)
www.cdc.gov

CDCP Division of Adolescent and School Health
www.cdc.gov/nccdphp/dash/

World Health Organization
www.who.ch/

U.S. Environmental Protection Agency
www.epa.gov

U.S. Food and Drug Administration
www.fda.gov

National Library of Medicine
www.nlm.nih.gov

U.S. Dept. of Health and Human Services
www.hhs.gov

The federal governments gateway site for health information.
Oriented to the consumer.
www.healthfinder.gov

General Health Oriented

Healthfinder
www.healthfinder.org

FDA Kids' Home Page
www.fda.gov/oc/opacom/kids

KidsHealth
www.kidshealth.org

Association for the Care of Children's Health
www.acch.org

Healthanswers, a commercial health information website.
www.healthanswers.com

Dr. Koop, former U.S. Surgeon General's
commercial health information website.
www.drkoop.com

Health on the Net Foundation
www.hon.ch

Disease Oriented

Merck Manual
www.merck.com

OnHealth discusses causes, symptoms, effects,
and treatments for several diseases. Especially good
for juvenile rheumatoid arthritis.
www.onhealth.com

Healthtalk discusses disease fundamentals, diagnosis,
and current treatment options.
www.healthtalk.com

Immunization Action Coalition
www.immunize.org

American College of Rheumatology
www.rheumatology.org

Arthritis Foundation
www.arthritis.org

American Association of Diabetes Educators
www.aadenet.org

American Diabetes Association
www.diabetes.org

Diabetes, Inc. for patients and professionals management,
health information, recipes.
www.diabetesinc.org

The Diabetes Monitor, provides users with all diabetes
related links on the Internet
www.diabetesmonitor.com

Leukemia Society of America
www.leukemia.org

American Liver Foundation
www.liverfoundation.org

National Organization for Rare Disorders (NORD)
www.rarediseases.org

Autism Society of America
www.autism-society.org

American Lung Association (Asthma)
www.lungusa.org

Childhood Asthma Foundation
childasthma.com

Asthma & Allergies
www.ibreathe.com
www.allnetnet.com

Professional Healthcare Organizations

American Academy of Pediatricians
www.schoolhealth.org

Association of Pediatric Oncology Nurses (APON)
www.apon.org

American Pain Society
www.ampainsoc.org

Family and Patient Support

Camp Sunshine, a retreat for families with children that are critically ill.
www.campsunshine.org

Cancer Kids, interlinking website for children with cancer.
www.cancerkids.org

Make a Wish Foundation
www.wish.org

Various Support Groups
www.thriveonline.com

Children's Defense Fund
www.cdc.gov

Chat rooms, message boards and general information.
www.allhealth.com

Alternative Medicine Websites

The following websites provide professionally reviewed information.

National Center for Complementary and Alternative Medicine
www.nccam.nih.gov/

American Dietetic Association
www.eatright.org

Alternative Medicine Homepage
www.pitt.edu/~cbw/altm.html

The following websites provide information that is generally regarded as reliable.

Alternative Medicine Digest
www.alternativemedicine.com

Health World Online
www.healthy.net

National Center for Homeopathy
www.homeopathic.org

Algy's Herb Page
www.algy.com/herb/index.html

American Botanical Council
www.herbalgram.org

The European Agency for the Evaluation of Medicinal Products
www.eudra.org

Herb Research Foundation
www.herbs.org

Medical Herbalism
www.medherb.com

Royal Botanic Gardens Kew, Scientific Research Programmes
www.rbgekew.org.uk/science

Prevention
www.prevention.com

Alternative Health News Online
www.altmedicine.com

Quackwatch
www.Quackwatch.com

Medication Monographs

- ◆ Listed in alphabetical order by generic name.
- ◆ Combination medication are listed by the first active ingredient.
- ◆ To find a medication by its brand name, use the index.
- ◆ Monographs have been prepared only for medication typically administered in a school setting. See the reference section for sources to find information on other medication.
- ◆ Medication picture identification is not available from a free website at the time of publication. Your options for help with identifying a medication are:
 - Call a poison control center.
 - Call a licensed pharmacy.
 - Purchase or consult a book such as the “Physician Desk Reference” (PDR) at the local library.

Official Apothecary Standards

Weight

- 1 gram = 1 gm = 1,000 mg
- 1 milligram = 1 mg = 1,000 micrograms
- 1 microgram = 1 mcg = 1 ug
- 1 kilogram = 1 kg = 2.2 pounds
- 1 pound = 454 grams

Volume

- 1 liter = 1 L = 1,000 ml
- 1 milliliter = 1 ml = 1 cubic centimeter = 1 cc
- 5 ml = 1 teaspoonful
- 15 ml = 1 tablespoonful

Dosing

- Mg/kg = milligram of medication/kilogram of body weight
- Mg/kg/day = Total daily dose for the patient. Divide the total daily dose by the daily frequency to determine individual dose (eg. 1,000 mg daily, given 4 x per day should be given as 250 mg per dose, 4 times a day).
- M² = body surface area in meters squared, calculated by a formula, used to determine medication doses for children and cancer patients. This formula is more sensitive to relative organ development at an early age than pure weight based dosing.
- Age of 16 years is generally considered to be an “adult” for medication dosing purposes.

Symbols

- < means “less than”
- > means “greater than”
- <= means “less than or equal to”



Acarbose



Precose®

Therapeutic Category (Common Uses)

- Oral hypoglycemic (alpha-glucosidase inhibitor)
- Diabetes mellitus

Normal Dosage Range

Children 25 - 50 mg, 3 times a day, adjusted to patient response

Adults 25 - 100 mg, 3 times a day, adjusted to patient response

Usual Administration Schedule

- 3 times a day at the start of a meal

Medication Administration Considerations

- May be given with insulin, metformin, or another oral hypoglycemic agent

Common Side Effects & Adverse Reactions

- Abdominal pain
- Diarrhea
- Flatulence

Proper Storage

- Room temperature

Other Comments Or Instructions

- Symptoms of low blood sugar include: tingling of lips and tongue, nausea, yawning, confusion, agitation, increased heart rate, sweating, convulsions, stupor and coma
- Student should be familiar with the symptoms of hyperglycemia (high blood sugar), and hypoglycemia (low blood sugar)
- Student should have a diabetes health plan which includes medication, blood glucose monitoring, diet and exercise
- Student should not skip meals, and a quick source of sugar should be readily available in the case of signs of hypoglycemia
- Student should consider wearing a medical alert bracelet

Acetaminophen

Tylenol®, Tempra®, Panadol®, FEVERALL®, Anacin-3®

Therapeutic Category (Common Uses)

- Analgesic
- Antipyretic (fever reducer)

Normal Dosage Range

Children 4 - 5 years 240 mg/dose

6 - 8 years 320 mg/dose

9 - 10 years 400 mg/dose

11 - 12 years 480 mg/dose

Adult 325 - 650 mg/dose

Usual Administration Schedule

- Every 4 - 6 hours

Medication Administration Considerations

- Do not give more often than every 4 hours

Common Side Effects & Adverse Reactions

- Nausea
- Vomiting
- Allergic reaction (rash, itching, swelling, dizziness or trouble breathing)

Proper Storage

- Room Temperature

Other Comments Or Instructions

- May be given with ibuprofen and other NSAIDs, but watch for additive effect

Acetaminophen 500mg + Caffeine + Pyrilamine + Pamabrom

Midol®

PRODUCT NAME	INGREDIENTS
Midol Menstrual Maximum Strength Multisymptom Formula®	Acetaminophen 500 mg Caffeine* 60 mg Pyrilamine maleate** 15 mg
Midol Menstrual Regular Strength Multisymptom Formula®	Acetaminophen 325 mg Pyrilamine maleate** 12.5 mg
Midol PMS®	Acetaminophen 500 mg Pamabrom* 25 mg Pyrilamine maleate** 15 mg

*Caffeine and Pamabrom are used as mild diuretics

**Pyrilamine maleate is an antihistamine with sedative effects

Therapeutic Category (Common Uses)

- Relief of mild to moderate menstrual pain

Normal Dosage Range

Children > 11 years, Adults	Acetaminophen is the dose limiting chemical in Midol. 325 - 650 mg acetaminophen every 4 - 6 hours if needed, not to exceed 4 gms of acetaminophen per day
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Usual Administration Schedule

- Start at the earliest onset of pain
- Every 4 - 6 hours
- Do not exceed 4 gms/day of acetaminophen

Medication Administration Considerations

- Acetaminophen can cause liver toxicity or failure, do not exceed recommended dose

Common Side Effects & Adverse Reactions

- Dizziness
- Rash
- Yellow skin or eyes
- Unusual bleeding or bruising

Overage Sign & Symptoms

- Nausea or vomiting
- Abdominal pain or diarrhea
- Sleep disorder

- Difficulty breathing
- Low BP, faint feeling, lightheadedness
- Irregular heart beat

Proper Storage

- Room temperature

Other Comments Or Instructions

- May cause drowsiness or compromise motor skills. Use caution when driving, operating dangerous machinery, or engaged in potentially dangerous activities.

Acetohexamide

Dymelor®

Therapeutic Category (Common Uses)

- Oral hypoglycemic (first generation sulfonylurea)
- Diabetes mellitus

Normal Dosage Range

Children	Not established by the FDA
Adults	250 - 1,500 mg divided into 2 doses a day

Usual Administration Schedule

- 2 times a day

Medication Administration Considerations

- Take before a meal

Common Side Effects & Adverse Reactions

- Hypoglycemia (low blood sugar)

Proper Storage

- Room temperature

Other Comments Or Instructions

- Symptoms of low blood sugar include: tingling of lips and tongue, nausea, yawning, confusion, agitation, increased heart rate, sweating, convulsions, stupor and coma
- Student should be familiar with the symptoms of hyperglycemia (high blood sugar), and hypoglycemia (low blood sugar)
- Student should have a diabetes health plan which includes medication, blood glucose monitoring, diet and exercise
- Student should not skip meals, and a quick source of sugar should be readily available in the case of signs of hypoglycemia
- Student should consider wearing a medical alert bracelet

Acyclovir

Zovirax®

Therapeutic Category (Common Uses)

- Antiviral

Normal Dosage Range

Children	20 mg/kg, 4 times a day
Adults	200 - 800 mg, 2 - 5 times a day

Usual Administration Schedule

- 2 - 5 times a day

Common Side Effects & Adverse Reactions

- Headache
- Nausea
- Vomiting
- Vertigo, dizziness
- Fatigue
- Mental depression
- Somnolence, lethargy
- Seizures

Proper Storage

- Room temperature

Other Comments Or Instructions

- Supplied as 200 mg capsules, 800 mg tablets, 200 mg/5 ml oral suspension, and 500 mg/10 ml injection

Albendazole

Albenza®

Therapeutic Category (Common Uses)

- Anthelmintic

Normal Dosage Range

Children > 2 years 200 mg per day for 1 - 3 days. Repeat in 3 weeks.

Adults < 60 kg 15 mg/kg per day in 2 divided doses.
Maximum dose is 800 mg/day. Take for 8 - 30 days.

Adults > 60 kg 400 mg, 2 times a day. Take for 8 - 30 days.

Usual Administration Schedule

- 1 - 2 times a day for children
- 2 times a day for adults

Medication Administration Considerations

- Take with food

Common Side Effects & Adverse Reactions

- Dizziness, Vertigo
- Fever
- Headache
- Abdominal Pain
- Nausea
- Vomiting

Proper Storage

- Room temperature

Ventolin®, Proventil®

Therapeutic Category (Common Uses)

- Bronchodilator
- Opens airways for the treatment of asthma, reactive airway disease, and cystic fibrosis

Normal Dosage Range

AGE	DOSAGE FORM	DIRECTIONS
Adult	Aerosol	1 - 2 inhalations every 4 - 6 hours
Adult	Inhalation Capsules	200 - 400 mcg (1 - 2 capsules) every 4 - 6 hours
2 - 6 years	Syrup	0.1 mg/kg, 3 times a day (max. = 4 mg, 3 times a day)
6 - 14 years	Syrup	2 mg, 3 - 4 times a day (max. = 24mg/day)
>14 years, Adults	Tablets	2 or 4 mg, 3 - 4 times a day (max. = 32mg/day)

Usual Administration Schedule

- The inhaler is used as a rescue medication, it should be immediately available (i.e. carry with the student) when needed. Usually one inhalation followed in a minute with a second puff.
- The oral form (syrup) is used to prevent attacks and is taken on a regular scheduled basis, 3 - 4 times a day.

Medication Administration Considerations

- INHALER:**
- Give 15 minutes before exercise if used to prevent exercise induced bronchoconstriction.
 - Inhaler effectiveness is enhanced if the proper technique is utilized and if a spacer device is used.
 - Wait at least 1 full minute between inhalations.
 - Consider having student rinse mouth with water after inhalations, and swallow.
- ORAL:**
- Best if taken on an empty stomach, 1 hour prior to meals. However, if albuterol causes upset stomach, it may be taken with food or milk.
 - Tablets can be crushed.

Common Side Effects & Adverse Reactions

- Failure to respond with normal breathing
- Dizziness
- Chest pain
- Rapid heart rate (pounding)
- Trembling
- Numbness in toes or fingers
- Vomiting
- High blood pressure (flushing, redness, swelling of the face)
- Side effects may be exaggerated if the student consumes caffeine, such as from coffee, tea, cola, or chocolate
- Dry mouth symptoms may be relieved by sucking on hard candy or drinking extra amounts of fluids
- Seek medical attention if a previously effective dosage fails to provide relief

Proper Storage

- Room temperature
- Follow school policy for allowing the student to carry their inhaler and self-administer

Aminophylline

Therapeutic Category (Common Uses)

- Bronchodilator
- Symptoms of bronchial asthma
- Bronchospasm associated with chronic bronchitis

Normal Dosage Range

Children 3 - 4 mg/kg per dose given orally every 6 hours

Adults 200 mg given orally 2 - 4 times daily

Usual Administration Schedule

- 2 - 4 times a day

Drug Administration Considerations

- Do not “skip” doses
- If a dose is missed, a dose should be given as soon as possible, but do not take a double dose on the next scheduled administration time
- Avoid large amounts of caffeine-containing food or beverages, such as tea, coffee, cocoa, and cola drinks, or large amounts of chocolate because these products may increase side effects
- Take at regular intervals around the clock.

Common Side Effects & Adverse Reactions:

- Nausea
- Diarrhea
- Dizziness
- Rapid heart rate
- Insomnia
- Vomiting
- Nervousness, agitation

Proper Storage

- Store at room temperature away from direct sunlight

Other Comments Or Instructions

- Available as 105 mg/5 ml solution (equivalent to 90 mg theophylline), and 100 and 200 mg tablets.

Amoxicillin

Amoxil,[®] Polymox,[®] Trimox,[®] Wymox,[®] Biomox[®]

Amoxicillin + Clavulonate Potassium

Augmentin[®]

Therapeutic Category (Common Uses)

- Antibiotic (Penicillin class)
- Otitis media
- Pharyngitis/ Tonsillitis
- Respiratory tract infections

Normal Dosage Range

Children 20 - 50 mg/kg per day

Adults 250 mg - 500 mg, 3 times a day *

*Augmentin dose is based on the Amoxicillin component of the preparation and is given the same way as Amoxicillin

Usual Administration Schedule

- 3 times a day for 7 - 14 days

Medication Administration Considerations

- May take with food or on an empty stomach
- Shake oral suspension prior to use
- Available as “oral drops” for earache, DO NOT PUT ORAL DROPS IN THE EAR

Common Side Effects & Adverse Reactions

- Fever
- Itching (urticaria)
- Rash
- Allergic reaction (penicillin allergy)

Proper Storage

- Liquid must be refrigerated

Other Comments Or Instructions

- Capsules: 125 mg, 200 mg, 250 mg, 500 mg
- Chewable tabs: 250 mg, 400 mg
- Oral liquid: 125 mg/5 ml, 200 mg/5 ml, 400 mg/5 ml
- Oral drops: 50 mg/ml

Amphetamine + Dextroamphetamine

Adderall®, Adderall XR®

(A combination product containing Amphetamine Sulfate, Amphetamine Aspartate, Dextroamphetamine Saccharate and Dextroamphetamine Sulfate in 5, 10, 15, 20, 25, or 30 mg strengths)

Therapeutic Category (Common Uses)

- Attention deficit disorder (ADD)
- Narcolepsy

Normal Dosage Range

CONDITION	AGE	DOSE
ADHD/ADD	Children 3 - 5 years	5 mg/day; may be increased weekly by 2.5 mg. Usual range: 0.1 - 0.5 mg/kg/dose in morning.
ADHD/ADD	Children > 6 years	5 mg/day; may be increased weekly by 5 mg to maximum of 40 mg/day in divided doses. Usual range: 0.1 - 0.5 mg/kg/dose q AM.
Narcolepsy	Children 6 - 12 years	5 mg/day; may be increased weekly by 5 mg to maximum of 60 mg/day in divided doses.
Narcolepsy	Adults & Children > 12 years	10 mg/day; may be increased weekly by 10 mg to maximum of 60 mg/day in divided doses.

Usual Administration Schedule

- Doses usually administered in the morning or midday, in intervals of 4 - 6 hours. Evening doses should be avoided to minimize interference with sleep.

Medication Administration Considerations

- The last dose of the day should be given at least 6 hours prior to sleeping to avoid insomnia

- Give doses with food or a snack
- Minimize use of caffeine or other stimulants while taking amphetamines
- May impair ability to drive or perform other tasks requiring alertness. May mask extreme fatigue and cause dizziness.

Common Side Effects & Adverse Reactions

- Rapid heart beat, irregular heart beats
- High blood pressure
- Hyperactivity
- Dizziness, restlessness, tremors
- Insomnia
- Decreased hunger / eating (anorexia)
- Exaggerated feeling of well-being
- Headache
- Dry mouth, unpleasant taste
- Diarrhea
- Constipation
- Itching

Overdosage Signs & Symptoms

- Restlessness, tremor
- Confusion
- Hallucinations, panic
- Fatigue, depression
- Convulsions, coma
- Irregular heart beat, hypertension
- Low blood pressure (hypotension), circulatory collapse
- Nausea
- Vomiting
- Diarrhea, abdominal cramps

Proper Storage

- Room temperature
- Controlled substance security

Other Comments Or Instructions

- May cause drowsiness or compromise motor skills. Use caution when driving, operating dangerous machinery, or engaged in potentially dangerous activities.

Antacids

**Tums,[®] Oscal,[®] Citracal,[®] Caltrate[®] (calcium);
**Amphojel[®] (aluminum hydroxide),
 Maalox,[®] Mylanta,[®] Gelusil[®] (aluminum and magnesium hydroxide)**
 (See pages 210-211)**

Therapeutic Category (Common Uses)

- Phosphate binder in kidney disease
- Calcium supplement
- Stomach ulcers
- Upset stomach

Normal Dosage Range

- When used for *phosphate binding*, the dose depends on phosphate and calcium blood tests
- When used for a *calcium supplement*, or for *ulcers* the medication is given on a regular schedule, as prescribed
- When used for *upset stomach* the dose can follow labeled directions and is often given as directed

USE	AGE	ACTIVE INGREDIENT	DOSE
Phosphate Binding	Infant	Calcium	25 - 65 mg/kg/day in 4 divided doses
Phosphate Binding	Infant	Aluminum	2 - 5 ml every 1 - 2 hours
Phosphate Binding	Children	Calcium	25 - 65 mg/kg/day in 4 divided doses
Phosphate Binding	Children	Aluminum	5 - 15 ml every 1 - 2 hours
Phosphate Binding	Adults	Calcium	1 - 2 grams/day in 2 - 4 divided doses
Phosphate Binding	Adults	Aluminum	30 - 60 ml every 1 - 2 hours
Calcium Supplement or Ulcers			As prescribed
Upset Stomach			As prescribed

Usual Administration Schedule

- See dose

Common Side Effects & Adverse Reactions

- Constipation (calcium/aluminum containing products such as Amphojel)
- Diarrhea (magnesium containing products such as Maalox, Gelusil)
- Nausea
- Vomiting
- Headache
- Confusion

Proper Storage

- Room Temperature

Atomoxetine

Strattera

Therapeutic Category (Common Uses)

- Attention Deficit Hyperactivity Disorder (ADHD)

Normal Dosage Range

Children < 70kg body weight	Dose is initiated at 0.5mg/kg, and after a minimum of 3 days, increased to a target daily dose of 1.2mg/kg given as a single daily dose in the morning. The dose may also be given as an equally divided dose in the morning and evening.
Adults and Children > 70kg	Dose is initiated at 40mg, and after a minimum of 3 days, increased to a target daily dose of 80mg given as a single daily dose in the morning. The dose may also be given as an equally divided dose in the morning and evening. After 2 - 4 additional weeks, the dose may be increased to a maximum daily dose of 100mg.

Usual Administration Schedule

- A single daily dose in the morning
- Twice a day, once in the morning and evening.

Drug Administration Considerations

- May be given with or without food
- May cause drowsiness or compromise motor skills. Use caution when driving,

operating dangerous machinery, or engaged in potentially dangerous activities.

- Do not “skip” doses.
- Do not administer with monoamine oxidase inhibitors (eg. Parnate, Nardil)

Common Side Effects and Adverse Reactions

- Nausea or upset stomach
- Vomiting
- Tiredness
- Decreased appetite
- Weight loss

Proper Storage

- Room temperature
- Protect from direct sunlight

Other Comments or Instructions

- Capsules: 10, 18, 25, 40 and 60mg
- If dizziness, lightheadedness or fainting occurs, stand up slowly and avoid sudden changes in posture.
- If a dose is missed, a dose should be given as soon as possible, but do not “double up” or take a double dose on the next scheduled administration time.

Azithromycin

Zithromax®

Therapeutic Category (Common Uses)

- Antibiotic (erythromycin/macrolide class)
- Otitis media
- Pharyngitis/Tonsillitis
- Respiratory tract infections
- Sexually transmitted infections
- Patients with penicillin allergies

Normal Dosage Range

Children 5 mg/kg/day
Maximum dose is 12 mg/kg/day not to exceed 500 mg/day

Adults 500 mg the first day, then 250 mg/day for 4 days,
or 500 mg per day for 5 days

Usual Administration Schedule

- Once a day for 5 days

Medication Administration Considerations

- Tablets may be taken with food
- Do not give suspension with food, or take with antacids

Common Side Effects & Adverse Reactions

- Diarrhea
- Nausea
- Abdominal pain
- Cramping
- Vomiting

Proper Storage

- Room temperature

Cogentin®

Therapeutic Category (Common Uses)

- Anticholinergic
- Ease the uncontrollable trembling and shaking caused by certain medications or diseases

Normal Dosage Range

Children > 3 years 0.02 - 0.05 mg/kg/dose given 1 - 2 times a day

Adults 1 - 2 mg, 2 - 3 times daily (maximum dose of 6 mg)

Usual Administration Schedule

- 2 - 3 times a day

Medication Administration Considerations

- Take with food to avoid upset stomach
- May be crushed and mixed with water or applesauce & swallowed, not chewed
- Benzotropine decreases the body's ability to sweat; therefore playground or sporting activities may need to be restricted

Common Side Effects & Adverse Reactions

- Dry mouth
- Nausea
- Vomiting
- Stomach pain
- Constipation
- Confusion
- Memory loss
- Hallucinations
- Lightheadedness, dizziness
- Weakness
- Agitation, nervousness
- Paranoia, delirium
- Excitement
- Depression
- Rapid heart rate, pounding in the chest

Proper Storage

- Room temperature

Other Comments Or Instructions

- Drinking fluids and maintaining good dental hygiene can relieve dry mouth
- Sunglasses may need to be worn outdoors, because the child's eyes may be more sensitive to sunlight
- May cause drowsiness or compromise motor skills. Use caution when driving, operating dangerous machinery, or engaged in potentially dangerous activities.

Bismuth Subsalicylate

Pepto Bismol® (See page 216)

Bismuth Subsalicylate + Metronidazole + Tetracycline

Helidac®

Therapeutic Category (Common Uses)

- Ulcers
- H. Pylori regimen for ulcers (Bismuth with Cimetidine, Famotidine, or Ranitidine plus an Antibiotic)
- Indigestion
- Anti-diarrhea
- Travelers disease (Montezuma's Revenge) (Helidac)

Normal Dosage Range

Children 3 - 6 years	1/3 tablet or 5 ml every 30 - 60 minutes as needed
Children 6 - 9 years	2/3 tablet or 10 ml every 30 - 60 minutes as needed
Children 9 - 12 years	1 tablet or 15 ml every 30 - 60 minutes as needed
Adults	2 tablets or 30 ml every 30 - 60 minutes as needed

Usual Administration Schedule

- Every 30 - 60 minutes as needed, up to 8 doses per day

Medication Administration Considerations

- May rinse mouth after taking medication

Common Side Effects & Adverse Reactions

- Diarrhea
- Constipation
- Darkened tongue
- Gray/black stools
- Don't use if student has chicken pox, GI bleeding, or is taking anti-coagulants ("blood thinners")

Proper Storage

- Room temperature

Bupropion

Wellbutrin®, Zyban®

Therapeutic Category (Common Uses)

- Antidepressant
- Attention-deficit hyperactivity disorder
- Smoking cessation

Normal Dosage Range

Depression: Adults	100 mg, 2 times a day Maximum daily dose is 450 mg Maximum single dose 150 mg
Smoking Cessation	150 mg once a day to 150 mg, 2 times a day

Usual Administration Schedule

- Regular-release tablets are generally taken 3 times a day with at least 6 hours between doses
- Extended-release form is taken in the morning and evening

Medication Administration Considerations

- If used for smoking cessation, the student should be enrolled in a smoking cessation program

Common Side Effects & Adverse Reactions

- Increased heart rate, pounding in chest
- Fainting, dizziness
- Difficulty breathing
- Excessive sweating
- Frequent urination, inability to urinate
- Dry mouth
- Nausea, Vomiting
- Diarrhea
- Constipation
- Indigestion
- Trembling, lack of coordination
- Sedation, sleep disturbances
- Fatigue
- Headache
- Rash
- Blurred vision
- Menstrual problems
- Excessive weight loss or gain
- Mood or personality changes (eg. exaggerated sense of well-being, confusion, agitation, hostility, disturbed concentration, restlessness, anxiety)

Overdosage Signs & Symptoms

- Seizures
- Hallucinations
- Loss of consciousness
- Rapid heart beat, heart attack

Proper Storage

- Room temperature

Other Comments Or Instructions

- May cause drowsiness or compromise motor skills. Use caution when driving, operating dangerous machinery, or engaged in potentially dangerous activities.



Carbamazepine

Tegretol,[®] Tegretol XR[®]

Therapeutic Category (Common Uses)

- Anticonvulsant
- Seizure disorders (eg. convulsions, epilepsy, fits)
- Various pain syndromes

Normal Dosage Range

Children < 6 years 10 - 35 mg/kg per day

6 - 12 years 200 - 1,000 mg per day

Adults 400 - 2,400 mg per day

Usual Administration Schedule

- 2 - 4 times a day

Medication Administration Considerations

- Abrupt discontinuation of medication may precipitate seizures
- Do not “skip” doses
- May take with food if upset stomach occurs
- Give tablets with a full glass of water
- Shake suspension well before pouring dose

Common Side Effects & Adverse Reactions

- Dizziness
- Blurred vision
- Unsteady on feet
- Confusion
- Dry mouth
- Proper Storage
- Room temperature

Other Comments Or Instructions

- May be taken in combination with other medications to control seizures
- If dry mouth severe, student may require extra water breaks
- Available as 100 mg chewable tablets, 200 mg tablets, also 100, 200 and 400 mg extended release tablets (Tegretol XR®), and 100 mg/5 ml suspension
- If a dose is missed, a dose should be given as soon as possible. Do not take a double dose on the next scheduled administration time.
- May cause drowsiness or compromise motor skills. Use caution when driving, operating dangerous machinery, or engaged in potentially dangerous activities.

Celecoxib

Celebrex®

Therapeutic Category (Common Uses)

- Non Steroidal Anti-Inflammatory Drug (NSAID) that is COX - 2 site selective
- Pain
- Osteoarthritis

Normal Dosage Range

Children	Not FDA approved
Adults	100 - 200 mg once or twice daily

Usual Administration Schedule

- 1 - 2 times a day

Medication Administration Considerations

- Consider taking with food and/or full glass of liquid

Common Side Effects & Adverse Reactions

- Upset stomach
- Decreased renal function and urination
- Edema (swelling)
- Dizziness
- Ulceration, GI bleeding, GI perforation
- Headache
- Insomnia

Proper Storage

- Room temperature

Other Comments Or Instructions

- Use with caution with students who have:
 - Kidney/Renal disease
 - Heart condition
 - GI Disease (bleeding, ulcers)
 - Asthma
 - Hypertension

Cephalexin

Keflex®, Cefanex®, C-Lexin®

Therapeutic Category (Common Uses)

- Antibiotic (Cephalosporin class)
- Respiratory infections
- Skin and wound infections

Normal Dosage Range

Children 25 - 50 mg/kg per day

Adults 1 - 4 gm per day

Usual Administration Schedule

- 2 - 4 times a day

Medication Administration Considerations

- Take on an empty stomach

Common Side Effects & Adverse Reactions

- Allergic reaction (eg. shortness of breath, skin rash, itching)
- Stomach upset
- Nausea
- Vomiting
- Diarrhea

Proper Storage

- Room temperature
- Suspension must be refrigerated

Other Comments Or Instructions

- Caution if patient is allergic to "penicillin"

Chloroquine & Primaquine

Aralen®

Therapeutic Category (Common Uses)

- Malaria

Normal Dosage Range

Children 4 mg (Chloroquine)/kg

Adults 4 - 6 mg (Chloroquine) up to 300 mg

**Dose of Aralen® is based on the Chloroquine content.*

Usual Administration Schedule

- 1 dose per week

Common Side Effects & Adverse Reactions

- Diarrhea
- Nausea
- Headache
- Visual change
- Cardiovascular collapse
- Abdominal cramps
- Vomiting

Chlorpropamide

Proper Storage

- Room temperature

Other Comments Or Instructions

- Requires regular monitoring of blood and vision

Diabinese®

Therapeutic Category (Common Uses)

- Oral hypoglycemic (first generation sulfonylurea)
- Diabetes mellitus

Normal Dosage Range

Children Not determined by the FDA

Adults 100 - 500 mg once a day

Usual Administration Schedule

- Once a day

Medication Administration Considerations

- Take with breakfast

Common Side Effects & Adverse Reactions

- Hypoglycemia (low blood sugar)
- Headache
- Dizziness
- Anorexia
- Constipation
- Upset stomach
- Nausea
- Vomiting
- Diarrhea
- Rash
- Photosensitivity, protect from exposure to sunlight

Proper Storage

- Room temperature

Other Comments Or Instructions

- Symptoms of low blood sugar include: tingling of lips and tongue, nausea, yawning, confusion, agitation, increased heart rate, sweating, convulsions, stupor and coma
- Student should be familiar with the symptoms of hyperglycemia (high blood sugar), and hypoglycemia (low blood sugar)
- Student should have a diabetes health plan which includes medication, blood glucose monitoring, diet and exercise
- Student should not skip meals, and a quick source of sugar should be readily available in the case of signs of hypoglycemia
- Student should consider wearing a medical alert bracelet

Cimetidine

Tagamet®

Therapeutic Category (Common Uses)

- Stomach acid suppressor (H₂ antagonist)
- Ulcers
- Reflux esophagitis

Normal Dosage Range

Children 20 - 40 mg/kg per day

Adults 400 mg, 2 - 4 times a day

Usual Administration Schedule

- Usually give before meals
- 2 - 4 times a day
- If given once daily, it is usually given at bedtime

Medication Administration Considerations

- Available as a liquid as well as a tablet form
- Can be taken without regard to meals

Common Side Effects & Adverse Reactions

- Headache
- Dizziness, agitation
- Drowsiness
- Diarrhea
- Nausea
- Vomiting

Proper Storage

- Room temperature

Other Comments Or Instructions

- Should not be taken at the same time as antacids (Maalox®, Tums®, Pepto Bismol®, etc.)

Ciprofloxacin

Cipro®

Therapeutic Category (Common Uses)

- Antibiotic (quinolone class)
- Respiratory infection
- Sinus infection
- Skin infection
- Ophthalmic (conjunctivitis)
- Cystic fibrosis
- Anthrax

Normal Dosage Range

Children 20 - 30 mg/kg per day in 2 divided doses

Adults 250 - 750 mg, 2 times a day

Ophthalmic 1 - 2 drops as directed

Usual Administration Schedule

- 2 times a day

Medication Administration Considerations

- May take with food
- Take with plenty of fluid

Common Side Effects & Adverse Reactions

- Headache
- Restlessness
- Nausea
- Diarrhea
- Vomiting
- Abdominal pain
- Rash
- Photosensitivity

Proper Storage

- Room temperature

Other Comments Or Instructions

- May cause photosensitivity, student may require protection from sunlight
- Available as:
 - Oral tablets: 100, 250, 500, 750 mg
 - Oral suspension: 250 mg/5 ml, 500 mg/5 ml
 - Ophthalmic Solution: 3.5 mg/ml (2.5, 5 ml)

Citrate and Citric Acid Solutions

Polycitra,[®] Bicitra,[®] Urocit-K[®]

Therapeutic Category (Common Uses)

- Systemic alkalinizer for kidney disease

Normal Dosage Range

PRODUCT	AGE	DOSE
Polycitra [®] /Bicitra [®]	Children	5 - 10 ml per dose
Polycitra [®] /Bicitra [®]	Adults	15 - 30 ml per dose
UrocitK [®]	Children	10 - 20 meq, 3 times a day (maximum of 100 meq per day)

Usual Administration Schedule

- Polycitra[®] or Bicitra[®]: After meals (to avoid laxative effect) and at bedtime
- Urocit K[®]: With meals or within 30 minutes after eating

Medication Administration Considerations

- Polycitra[®]/Bicitra[®] must be diluted with water (at least the same amount as dose volume)
- Solution is better for children as the dose can more easily be regulated than the crystals

Common Side Effects & Adverse Reactions

Seek medical attention if :

- Listlessness, weakness, confusion
- Diarrhea
- Nausea
- Vomiting
- Stomach pain
- Convulsions
- Irregular heart beat (due to electrolyte imbalance)
- Tingling in arms/legs (signs of dangerously high potassium)

Proper Storage

- Room temperature

Clarithromycin

Biaxin®

Therapeutic Category (Common Uses)

- Antibiotic (Erythromycin/macrolide class)
- H. Pylori ulcer regimen
- Respiratory infection
- Sinus infection
- Otitis media (ear)
- Skin and wound infection
- AIDS related infections

Normal Dosage Range

Children 15 mg/kg per day, up to 500mg, divided into 2 doses

Adults 250 - 500 mg, 2 times a day, or 1,000 mg once a day

Usual Administration Schedule

- 2 times a day for 7 - 14 days

Medication Administration Considerations

- May take with meals
- Finish all medication

Common Side Effects & Adverse Reactions

- Headache
- Diarrhea
- Nausea
- Abnormal taste
- Heartburn
- Abdominal pain

Proper Storage

- Room temperature
- Do Not refrigerate oral suspension

Other Comments Or Instructions

- Do not crush or chew extended release tablets

Clonazepam

Klonopin®

Therapeutic Category (Common Uses)

- Anticonvulsant
- Seizure disorders (convulsions, epilepsy, fits)

Normal Dosage Range

Children 0.01 - 0.2 mg/kg per day

Adults 0.5 - 20 mg per day

Usual Administration Schedule

- 3 times a day

Medication Administration Considerations

- Abrupt discontinuation of medication may precipitate seizures
- Do not “skip” doses
- If a dose is missed, a dose should be given as soon as possible.

- Do not take a double dose on the next scheduled administration time.
- Give dose at same time each day
- Administer tablets with a full glass of water

Common Side Effects & Adverse Reactions

- Drowsiness
- Irritability
- Fatigue
- Trouble concentrating
- Nausea
- Vomiting

Proper Storage

- Room temperature

Other Comments Or Instructions

- Available as tablets: 0.5 mg, 1 mg, 2 mg
- May cause drowsiness or compromise motor skills. Use caution when driving, operating dangerous machinery, or engaged in potentially dangerous activities.

Clonidine

Catapres®

Therapeutic Category (Common Uses)

- Alpha 2 adrenergic agonist
- Attention deficit disorder (ADD, ADHD)
- Treatment of painful menstruation
- Prevention of migraine
- Tourette’s syndrome
- Hypertension
- Cancer pain management
- Narcotic withdrawal symptoms

Normal Dosage Range (1,000 mcg = 1 mg)

USE	AGE	DOSE
ADHD/ADD		5 mcg/kg per day
Prevention of Migraine		25 mcg, 2 - 4 times a day up to 150 mcg per day
Treatment of painful menstruation		25 mcg, 2 times a day for 14 days, before and during menses
Tourette’s syndrome		5 mcg/kg per day
Hypertension	Children	50 to 400 mcg orally 2 times a day
Hypertension	Adults	200 to 600 mcg/day given in divided doses
Hypertension and Pain Management		Transdermal Patch which is effective for 7 days

Medication Administration Considerations

- Patches should be applied to clean dry skin

Common Side Effects & Adverse Reactions

- Dry mouth
- Drowsiness, sedation
- Dizziness

- Weakness, fatigue
- Hypotension
- Cardiac (eg. chest pain, irregular heartbeat)
- Headache
- Rash, itching
- Decreased hunger/eating (anorexia)
- Nausea
- Vomiting
- Constipation
- GI bleeding
- Central nervous system (eg. insomnia, hallucinations, delirium, nervousness, agitation, restlessness, anxiety, depression)

Proper Storage

- Room temperature

Other Comments Or Instructions

- May cause drowsiness or compromise motor skills. Use caution when driving, operating dangerous machinery, or engaged in potentially dangerous activities.

Clorazepate

Tranxene®

Therapeutic Category (Common Uses)

- Anticonvulsant
- Seizure disorders (convulsions, epilepsy, fits)
- Sedative

Normal Dosage Range

Children	15 - 60 mg per day
Adults	22.5 - 90 mg per day

Usual Administration Schedule

- 2 - 3 times a day

Medication Administration Considerations

- Abrupt discontinuation of medication may precipitate seizures
- Do not “skip” doses
- If a dose is missed, a dose should be given as soon as possible. Do not take a double dose on the next scheduled administration time.
- Give dose at same time each day
- Student may require extra drinking water and restroom privileges as this medication may cause excess thirst
- Administer tablets with a full glass of water

Common Side Effects & Adverse Reactions

- Hypotension
- Drowsiness, sedation
- Nausea
- Vomiting
- Over excitability
- Headache
- Dizziness
- Dry mouth
- Rash
- Blurred vision

Proper Storage

- Room temperature away from direct sunlight

Other Comments Or Instructions

- May cause drowsiness or compromise motor skills. Use caution when driving, operating dangerous machinery, or engaged in potentially dangerous activities.
- Available as:
 - Tablets: 3.5 mg, 7.5 mg, 11.25 mg, 15 mg and 22.5 mg
 - Capsules: 3.75 mg, 7.5 mg, and 15 mg

Codeine and Acetaminophen

Tylenol #3® (Acetaminophen 325 mg + Codeine 30 mg)

Therapeutic Category (Common Uses)

- Opioid Analgesic
- Muscle and bone pain

Normal Dosage Range

Children 0.5 - 1.0 mg/kg of codeine per dose, every 4 - 6 hours

Adults 1 or 2 tablets every 4 - 6 hours

Usual Administration Schedule

- Every 4 - 6 hours

Medication Administration Considerations

- Take with food

Common Side Effects & Adverse Reactions

- Constipation
- Lightheadedness
- Dizziness
- Drowsiness
- Stomach upset
- Nausea
- Flushing
- Anxiety
- Extensive use can cause dependence or addiction

Proper Storage

- Room temperature
- Controlled substance security

Other Comments Or Instructions

- Codeine content: 30 mg per tablet, or 12 mg/5 ml (teaspoonful) of the elixir
- May cause drowsiness or compromise motor skills. Use caution when driving, operating dangerous machinery, or engaged in potentially dangerous activities.

Corticosteroids

GENERIC NAME	BRAND NAMES
Beclomethasone	Beclovent, [®] Vancertil [®]
Dexamethasone	Decadron [®]
Triamcinolone	Azmacort [®]
Flunisolide	AeroBid [®]

Therapeutic Category (Common Uses)

- Corticosteroid (decreases inflammation of the airways)
- Ease breathing for asthma and other respiratory diseases.
This class of medication is not for acute (urgent) asthma attacks.

Normal Dosage Range

	6 - 12 Years	> 12 Years and Adults
Beclomethasone	1 - 2 puffs, 3 - 4 times a day	2 puffs, 3 - 4 times a day
Dexamethasone	2 puffs, 4 times a day	3 puffs, 4 times a day
Triamcinolone	1 - 2 puffs, 3 - 4 times a day	2 puffs, 4 times a day
Flunisolide	2 puffs, 2 times a day	2 puffs, 2 times a day

Usual Administration Schedule

- 2 - 4 times a day for maintenance.
- Some students require more depending on their condition, or the number of “asthma triggers” present in the environment

Medication Administration Considerations

- Following oral inhalation, students should rinse their mouth with water to prevent the growth of fungal infections, and to offset the taste. Spit out the water, do not swallow.
- If the student is also receiving an inhaled bronchodilator, administer the bronchodilator first. If possible wait 10 minutes before administering the corticosteroid.
- After using, the inhaler should be washed with warm water or wiped with a sanitary wipe

Common Side Effects & Adverse Reactions

- Fungal growth in the mouth or nose (white puss like patches)
- Cough
- Headache
- Dizziness
- Students could have serious medical problems if they suddenly discontinue taking this medication. They must be “tapered off” in gradually decreasing doses, over several days, under a physician’s directions.

Proper Storage

- Room temperature. Do not refrigerate as it could decrease the delivery of the medication.
- To determine how much medication is left in the “canister”, remove it from the inhaler and float it in a glass of water. If it is full, it will float approximately 50% under water. If it is empty it will float almost completely out of water.

Other Comments Or Instructions

- Used for chronic control (taken regularly) to prevent asthma attacks
- They are NOT indicated for an emergency (severe) asthma attack (call for emergency help when that happens)
- Available as an oral tablet, oral solution, metered dose inhaler, or nebulizer solution
- Most physicians prescribe the inhalers because they want to have the medication act only in the respiratory tract
- It can take up to 4 weeks for the full effects of the medication to take effect. Continue taking the medication as prescribed, but let the physician know if breathing problems continue.
- These steroids primarily effect the lungs and respiratory tract, and are not the same as steroids which are commonly abused by athletes

Cromolyn Sodium: Capsules & Inhalation Aerosol

Gastrocrom® Capsules, Intal® Inhaler

Therapeutic Category (Common Uses)

- Prevents the release of histamine by the mast cells located in the lungs
- Asthma and other breathing problems

Normal Dosage Range

	INHALER	ORAL CAPSULES
Children	1 puff	Not recommended
Adults	1 mg/puff, 1 - 2 puffs	1 capsule

Usual Administration Schedule

- 3 - 4 times a day

Medication Administration Considerations

For Inhalation:

- Shake well before using
- Clean the inhaler before and after each use
- Completely exhale, then time the dose to get full effect when you inhale. Wait ten seconds, and slowly exhale.
- Wait 1 minute before inhaling a second dose
- Rinse mouth with water. Spit out the water, do not swallow.

For Oral Capsule:

- Take 30 minutes before food
- Open the capsule and mix the contents in half a glass of hot water. Stir well, until clear. Add an equal amount of cold water while stirring.
- Do not mix with fruit juice, milk, carbonated drinks, or food

Common Side Effects & Adverse Reactions

- Skin rash and itching (hives)
- Swelling of face, lips, or eyelids
- Continued coughing or wheezing
- Altered sense of taste
- Headache
- Irritated dry throat
- Indigestion or stomach ache
- Diarrhea
- Nausea
- Vomiting
- Runny or stuffy nose

Proper Storage

- Room Temperature

Other Comments Or Instructions

- Therapeutic response might not be seen for 1 - 2 weeks, and the full effect might not be seen for 3 - 4 weeks
- Do not stop using without a physician order. Discontinuation of this medication requires a tapering dose schedule to prevent serious medical problems.
- If medication is used prior to physical exertion, it should be administered at least 15 minutes, but not more than 60 minutes prior to the event

Cyproheptadine

Periactin®

Therapeutic Category (Common Uses)

- Antihistamine
- Allergic nasal congestion
- Allergic conjunctivitis
- Itching
- Appetite stimulant
- Cluster headache

Normal Dosage Range

Children	0.25 mg/kg per day.
2 - 6 years	2 mg, 2 or 3 times a day. Do not exceed 12 mg/day.
7 - 14 years	4 mg, 2 or 3 times a day. Do not exceed 16 mg/day.
Adults	4 to 20 mg a day. Initiate therapy with 4 mg, 3 times a day. Most students require 12 to 16 mg/day and occasionally as much as 32 mg/day. Do not exceed 0.5 mg/kg/day.

Usual Administration Schedule

- 2 - 3 times a day

Medication Administration Considerations

- Take with food

Common Side Effects & Adverse Reactions

- Drowsiness, dizziness
- Thickening of bronchial secretions (mucous)
- Headache
- Fatigue
- Nervousness
- Nausea
- Diarrhea
- Abdominal pain
- Appetite stimulation
- Joint and muscle ache
- Dry mouth, nose and throat; sore throat

Proper Storage

- Room temperature

Other Comments Or Instructions

- May cause drowsiness or compromise motor skills. Use caution when driving, operating dangerous machinery, or engaged in potentially dangerous activities.

Delavirdine



Rescriptor®

Therapeutic Category (Common Uses)

- Antiviral (HIV)

Normal Dosage Range

Children > 16 years 400 mg every 8 hours

Adults 400 mg every 8 hours

Usual Administration Schedule

- Every 8 hours

Medication Administration Considerations

- Tablets may be dissolved before swallowing
- May be given with or without food

Common Side Effects & Adverse Reactions

- Headache
- Fatigue
- Nausea
- Vomiting
- Diarrhea
- Rash

Proper Storage

- Room temperature

Dextroamphetamine

Dexadrine®

Therapeutic Category (Common Uses)

- Central Nervous System Stimulant
- ADD/ADHD
- Narcolepsy

Normal Dosage Range

USE	AGE	DOSE
ADHD/ADD	3 - 5 Years	2.5 mg per day to start. Increase by 2.5 mg at weekly intervals until optimum dose is achieved.
ADHD/ADD	> 6 Years	5 mg, 1 - 2 times a day. Increase until optimal dose - response is achieved. Maximum daily dose rarely exceeds 60mg.
Narcolepsy		5 - 60 mg per day depending on students age and response.

Usual Administration Schedule

- Take with meals, milk or a snack to prevent stomach upset
- 2 - 3 times a day. The long-acting capsule is usually given once a day.

Medication Administration Considerations

- Tablets should be taken whole, not crushed or chewed
- Medication should not be taken later than 6 PM in the evening to prevent insomnia

Common Side Effects & Adverse Reactions

- Restlessness, insomnia
- Headache
- Dry mouth
- Anorexia & weight loss
- Diarrhea
- Constipation
- Rapid heart rate, increase in blood pressure, irregular heart beat

Symptoms of Overdose:

- Restlessness, irritability
- Insomnia
- Assertiveness
- Confusion
- Delirium
- Self-injury
- High blood pressure (hypertension), or low blood pressure (hypotension)
- Fatigue and depression (usually happens after the central stimulation effects subside)

Proper Storage

- Room temperature
- Controlled Substance Security

Other Comments Or Instructions

- May cause drowsiness or compromise motor skills. Use caution when driving, operating dangerous machinery, or engaged in potentially dangerous activities.

Diazepam

Valium®, DiaStat®

Therapeutic Category (Common Uses)

- Tranquilizer
- Seizure disorders (convulsions, epilepsy, fits)
- Muscle Relaxant

Normal Dosage Range

BECAUSE OF POSSIBLE SERIOUS REACTIONS, THE FIRST DOSE SHOULD NOT BE GIVEN IN THE SCHOOL, AND THE SCHOOL SHOULD HAVE WRITTEN DOCUMENTATION OF THE STUDENT'S REACTION OR RESPONSE.

Children	2 - 10 mg daily
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Adults	2 - 40 mg daily
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Usual Administration Schedule

- In divided doses 3 - 4 times daily

Medication Administration Considerations

- Abrupt discontinuation of medication may precipitate seizures
- Do not "skip" doses when used for seizure control
- If a dose is missed, a dose should be given as soon as possible. Do not take a double dose on the next scheduled administration time.
- Give dose at same time each day
- Student may require extra drinking water and restroom privileges as this medication may cause excess thirst
- Administer tablets with a full glass of water
- Oral suspension should be shaken well prior to administration

Common Side Effects & Adverse Reactions

- Cardiac: cardiac arrest, bradycardia (slow pulse), cardiovascular collapse, tachycardia (fast pulse), chest pain
- Decreased or irregular breathing rate
- Paradoxical excitement (over excitability), rage, anxiety
- Sleepiness
- Nausea
- Vomiting
- Headache
- Dizziness
- Blurred Vision
- Dry mouth
- Amnesia, memory impairment
- Slurred speech
- Anxiety
- Depression
- Rash

Proper Storage

- Store at room temperature away from direct sunlight
- Controlled substance security

Other Comments Or Instructions

- Available as:
 - Tablets: 2 mg, 5 mg, 10 mg
 - Capsules: 15 mg
 - Oral solution: 5 mg/ml, 5 mg/5 ml
 - Oral suspension: 5 mg/5 ml
 - Rectal Gel (DiaStat) 2.5 mg/0.5 ml, 5 mg/ml, 10 mg/2 ml
 - Injection: 10 mg/2 ml
- May cause drowsiness or compromise motor skills. Use caution when driving, operating dangerous machinery, or engaged in potentially dangerous activities.

Didanosine

Videx®

Therapeutic Category (Common Uses)

- Antiviral (HIV)

Normal Dosage Range

Children	120 mg/M ² every 12 hours (M ² refers to the body surface area which is determined by a formula.)
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	CHEWABLE TABLETS	ORAL SOLUTION
Adults < 60 kg	125 mg every 12 hours	167 mg every 12 hours
Adults > 60 kg	200 mg every 12 hours	250 mg every 12 hours

Usual Administration Schedule

- Every 12 hours

Medication Administration Considerations

- Take on an empty stomach.

Common Side Effects & Adverse Reactions

- Headache
- Cough

- Rash
- Weakness
- Loss of appetite
- Chills and fever
- Sore tongue or mouth, with change in taste

Proper Storage

- Refrigerate

Other Comments Or Instructions

- Each dose should consist of at least 2 tablets
- Student may be taking other antiviral medication that may be given at the same time

Diethylpropion

Tenuate®

Therapeutic Category (Common Uses)

- Obesity

Normal Dosage Range

Children	Not recommended for children
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Adults	25 mg, 3 times a day, or 75 mg sustained release tablets once a day
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Usual Administration Schedule

- 3 times a day prior to meals

Medication Administration Considerations

- Do not crush sustained release tablets

Common Side Effects & Adverse Reactions

- Insomnia
- Hypertension
- Heartbeat irregularities, chest pain
- Nervousness, restlessness, anxiety
- Dizziness
- Headaches
- Confusion
- Depression
- Nausea
- Vomiting
- Metallic taste
- May cause mental or physical dependence if taken for a long period of time

Proper Storage

- Room temperature

Other Comments Or Instructions

- May cause drowsiness or compromise motor skills. Use caution when driving, operating dangerous machinery, or engaged in potentially dangerous activities.

Doxycycline

Vibramycin®

Therapeutic Category (Common Uses)

- Antibiotic (Tetracycline class)
- H. Pylori ulcer regimen
- Respiratory infection
- Sinus infection
- Otitis media (ear)
- Skin and wound infection
- Anthrax

Normal Dosage Range

Children 2.5 - 5 mg/kg per day

Adults 100 - 200 mg per day

Usual Administration Schedule

- 1 - 2 times a day for 7 - 14 days
- Take for 30 - 60 days for anthrax

Medication Administration Considerations

- Take with full glass of water
- Take with food

Common Side Effects & Adverse Reactions

- Upset stomach
- Sensitivity to sunlight
- Nausea
- Vomiting
- Headache
- Diarrhea

Proper Storage

- Room temperature

Other Comments Or Instructions

- Avoid taking with antacids or iron products

Ergotamine Tartrate 0.6 mg with 0.2 mg Belladonna Alkaloids & 40 mg Phenobarbital

Bellergal-S®

Therapeutic Category (Common Uses)

- Prevent or stop migraine headaches
- Prevent or stop cluster headaches

Normal Dosage Range

Children Not recommended by the FDA

Adults 1 - 2 tablets

Usual Administration Schedule

- 1 tablet in the morning and evening

Medication Administration Considerations

- Tablet should be swallowed whole without crushing, breaking or chewing

- Antacids and antidiarrhea medications should be avoided within 1 hour of taking Bellergal-S

Common Side Effects & Adverse Reactions

- Drowsiness
- Dizziness, lightheadedness
- Excitement
- Confusion
- Dryness of mouth, nose, & throat
- Increased sensitivity to sunlight

Proper Storage

- Room temperature

Other Comments Or Instructions

- Sugarless candy or gum may alleviate the dry mouth

Erythromycin

Erythrocin,[®] Pediamycin,[®] E-Mycin,[®] EES400,[®] Eryc[®]

Therapeutic Category (Common Uses)

- Antibiotic (Macrolide class)
- Respiratory infection
- Sinus infection
- Otitis media (ear)
- Skin and wound infection

Normal Dosage Range

Children 30 - 50 mg/kg per day

Adults 1 - 4 gm per day

Usual Administration Schedule

- 3 - 4 times a day for 7 - 14 days

Medication Administration Considerations

- Give with food
- Suspension should be shaken well

Common Side Effects & Adverse Reactions

- Stomach upset and cramps
- Nausea
- Vomiting
- Diarrhea
- Allergic reactions include: difficulty breathing, rash, itching, or swelling

Proper Storage

- Refrigerate suspension
- Room temperature for tablets or capsules

Ethosuximide

Zarontin®

Therapeutic Category (Common Uses)

- Anticonvulsant
- Seizure Disorder (eg: convulsions, epilepsy, fits)

Normal Dosage Range

Children 3 - 6 years	15 mg/kg per day, increasing up to 40 mg/kg per day
Children > 6 years	500 mg per day, increasing up to 1,500 mg per day. Usual maintenance dose = 20 - 40 mg/kg per day given as 2 divided doses.
Adults	500 mg per day, increasing up to 1,500 mg per day. Usual maintenance dose = 20 - 40 mg/kg per day given as 2 divided doses.

Usual Administration Schedule

- 2 times a day

Medication Administration Considerations

- If dose exceeds 1,500 mg, give in divided doses
- Give dose at same time each day
- Administer capsules with a full glass of water
- May give with food/milk if stomach upset occurs
- Abrupt discontinuation of medication may precipitate seizures
- Do not “skip” doses
- If a dose is missed, a dose should be given as soon as possible.
Do not take a double dose on the next scheduled administration time.

Common Side Effects & Adverse Reactions

- Nausea
- Vomiting
- Rash
- Drowsiness
- Headache

Proper Storage

- Store at room temperature away from direct sunlight

Other Comments Or Instructions

- Available as 250 mg capsules, and 250 mg/5 ml solution
- May cause drowsiness or compromise motor skills. Use caution when driving, operating dangerous machinery, or engaged in potentially dangerous activities.

Ethotoin

Peganone®

Therapeutic Category (Common Uses)

- Anticonvulsant
- Seizure disorders (eg: convulsions, epilepsy, fits)

Normal Dosage Range

Children	750 - 2,000 mg per day
Adults	2,000 - 4,000 mg per day

Felbamate

Usual Administration Schedule

- 2 - 4 times a day

Medication Administration Considerations

- Abrupt discontinuation of medication may precipitate seizures
- Give dose at same time each day
- Do not “skip” doses
- Medication should be taken with food and a full glass of water
- If a dose is missed, a dose should be given as soon as possible. Do not take a double dose on the next scheduled administration time.

Common Side Effects & Adverse Reactions

- Drowsiness
- Irritability
- Fatigue
- Trouble concentrating
- Nausea
- Vomiting

Proper Storage

- Store at room temperature away from direct sunlight

Other Comments Or Instructions

- Available as tablets: 250 mg and 500 mg
- May cause drowsiness or compromise motor skills. Use caution when driving, operating dangerous machinery, or engaged in potentially dangerous activities.

Felbatol®

Therapeutic Category (Common Uses)

- Antianxiety agent
- Seizure disorders (eg: convulsions, fits)

Normal Dosage Range

Children	15 - 45 mg/kg per day
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Adults	1,200 - 3,600 mg per day
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Usual Administration Schedule

- 3 - 4 times a day

Medication Administration Considerations

- Abrupt discontinuation of medication may precipitate seizures
- Give dose at same time each day
- Do not “skip” doses
- If a dose is missed, a dose should be given as soon as possible. Do not “double up” or take a double dose on the next scheduled administration time.
- Administer tablets with a full glass of water
- Swallow tablets whole, do not crush or chew
- Shake suspension well before measuring dose

Common Side Effects & Adverse Reactions

- Nausea
- Vomiting
- Headache
- Increased sensitivity to sunlight, may need to limit amount of time at recess or use high potency sunscreen

Fluticasone

Proper Storage

- Store at room temperature away from direct sunlight

Other Comments Or Instructions

- Available as 400 mg and 600 mg capsules and 600 mg/5 ml oral suspension
- May cause drowsiness or compromise motor skills. Use caution when driving, operating dangerous machinery, or engaged in potentially dangerous activities.

Flovent[®], Flovent Rotadisk[®], Flonase[®]

Therapeutic Category (Common Uses)

- Corticosteroid for bronchial inflammation
- Asthma

Normal Dosage Range

Children 4 - 12 years	Rotadisk for Oral Inhalation (50, 100, or 250 mcg/spray)	1 puff inhaled 2 times a day up to a maximum dose of 100 mcg 2 times a day.
Adolescents 12 years and older	Flonase Nasal Inhaler (50 mcg/spray)	1 - 2 sprays per nostril once a day. Total daily dose should not exceed 4 sprays.
Adolescents 12 years and older	Flovent Oral Inhaler (44, 110, or 220 mcg/puff)	1 - 2 puffs inhaled 2 times a day to a maximum of 220 mcg 2 times a day.
Adults	Flovent Oral Inhaler (44, 110, or 220 mcg/puff)	2 - 4 puffs inhaled 2 times a day. Total daily dose should not exceed 880 mcg 2 times a day.

Usual Administration Schedule

- 2 times a day

Medication Administration Considerations

- Proper inhalation technique is difficult for this medication. Follow the patient information leaflet that is included with the medication.
- To achieve the most benefit from this medicine it must be taken at regular intervals on a daily basis, even during symptom-free periods
- Do not “skip” doses
- If an inhaled bronchodilator medicine is also prescribed, use it first

Common Side Effects & Adverse Reactions

- Headache
- Respiratory, sinus, or oral infection
- Sore throat
- Nasal congestion
- Nausea
- Vomiting
- Growth suppression if used long term

Proper Storage

- Room temperature away from direct sunlight
- Use the Rotadisk blisters within 2 months of opening the sealed foil pack



Neurontin®

Therapeutic Category (Common Uses)

- Anticonvulsant
- Seizure disorders (eg. convulsions, epilepsy, fits)
- Various pain syndromes (eg. trigeminal neuralgia)

Normal Dosage Range

Children > 12 years 30 - 60 mg/kg per day. Maximum of 1,800 mg per day.

Adults 900 - 4,800 mg per day.

Usual Administration Schedule

- 3 - 4 times a day

Medication Administration Considerations

- May be given with food
- Swallow capsules whole, do not crush or chew
- Administer capsules with a full glass of water
- Do not “skip” doses
- If a dose is missed, a dose should be given as soon as possible.
Do not take a double dose on the next scheduled administration time.
- Give dose at same time each day

Common Side Effects & Adverse Reactions

- Sedation
- Dizziness
- Fatigue
- Swelling (edema)
- Nervousness
- Depression
- Amnesia, abnormal thinking
- Coordination problems
- Blurred vision
- Hiccups

Proper Storage

- Store at room temperature away from direct sunlight

Other Comments Or Instructions

- Available as 100, 300 and 400 mg capsules
- May cause drowsiness or compromise motor skills. Use caution when driving, operating dangerous machinery, or engaged in potentially dangerous activities.

Glimepiride

Amaryl®

Therapeutic Category (Common Uses)

- Oral hypoglycemic (second generation sulfonylurea)
- Diabetes mellitus

Normal Dosage Range

Children Not determined by the FDA

Adults 1 - 4 mg/day

Usual Administration Schedule

- Once a day

Medication Administration Considerations

- Take with breakfast or the first meal of the day

Common Side Effects & Adverse Reactions

- Headache
- Hypoglycemia (low blood sugar)

Proper Storage

- Room temperature

Other Comments Or Instructions

- Symptoms of low blood sugar include: tingling of lips and tongue, nausea, yawning, confusion, agitation, increased heart rate, sweating, convulsions, stupor and coma
- Student should be familiar with the symptoms of hyperglycemia (high blood sugar), and hypoglycemia (low blood sugar)
- Student should have a diabetes health plan which includes medication, blood glucose monitoring, diet and exercise
- Student should not skip meals, and a quick source of sugar should be readily available in the case of signs of hypoglycemia
- Student should consider wearing a medical alert bracelet

Glipizide, Glipizide-GITS

Glucotrol®, Glucotrol XL®

Therapeutic Category (Common Uses)

- Oral hypoglycemic (second generation sulfonylurea)
- Diabetes mellitus

Normal Dosage Range

Children Not determined by the FDA

Adults: Glucotrol® 5 - 40 mg per day as a single dose before breakfast

Adults: Glucotrol XL® 5 - 10 mg per day as a single dose with breakfast

Usual Administration Schedule

- Once a day

Medication Administration Considerations

- With breakfast

Common Side Effects & Adverse Reactions

- Headache
- Hypoglycemia (low blood sugar)

Proper Storage

- Room temperature

Other Comments Or Instructions

- Symptoms of low blood sugar include: tingling of lips and tongue, nausea, yawning, confusion, agitation, increased heart rate, sweating, convulsions, stupor and coma
- Student should be familiar with the symptoms of hyperglycemia (high blood sugar), and hypoglycemia (low blood sugar)
- Student should have a diabetes health plan which includes medication, blood glucose monitoring, diet and exercise
- Student should not skip meals, and a quick source of sugar should be readily available in the case of signs of hypoglycemia
- Student should consider wearing a medical alert bracelet

Glucagon

Glucagon

Therapeutic Category (Common Uses)

- Antidote for hypoglycemia or insulin shock (low blood sugar)
- Elevates blood glucose levels by activating liver glycogen reserves

Normal Dosage Range

Children < 20 kg	0.5 mg (0.5 unit), or a dose equivalent to 20 to 30 mcg/kg
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Adults & children > 20 kg	1 mg (1 unit) SC, IM, or IV
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May give 1 - 2 additional doses if required (see Usual Administration Schedule) below

Usual Administration Schedule

- Give 1 dose. If patient does not awaken from coma within 15 minutes, repeat dose.

Medication Administration Considerations

- A separate vial of diluent is supplied with each glucagon vial. After dilution, the solution should be clear.
- Administer glucagon immediately after preparation.
- May be administered SC, IM, or IV

Common Side Effects & Adverse Reactions

- Nausea
- Vomiting (occasional; this may also occur with hypoglycemia)
- Generalized allergic reactions including itching and rash
- Hyperglycemia (high blood glucose)
- Hypotension (low blood pressure)
- Respiratory distress

Proper Storage

- Store at room temperature away from direct sunlight

Other Comments Or Instructions

- Monitor blood glucose and blood pressure after administering glucagon.
- Contact emergency assistance immediately if patient does not respond to injections.
- Patient may require an adjustment of insulin dosage.

Glyburide

Micronase,[®] Diabeta[®]

Glyburide Micronized

Glynase[®]

Therapeutic Category (Common Uses)

- Oral hypoglycemic (second generation sulfonylurea)
- Diabetes mellitus

Normal Dosage Range

Children	Not determined by the FDA
Adult: Glyburide	1.25 - 20 mg per day as a single dose with breakfast, or as two divided doses
Adults: Micronized Glyburide	0.75 - 12 mg per day as a single dose with breakfast, or as 2 divided doses

Usual Administration Schedule

- Glyburide: once a day
- Glucovance: 1 or 2 times a day

Medication Administration Considerations

- Take with breakfast or the first meal of the day

Common Side Effects & Adverse Reactions

- Headache
- Hypoglycemia (low blood sugar)

Proper Storage

- Room temperature

Other Comments Or Instructions

- Symptoms of low blood sugar include: tingling of lips and tongue, nausea, yawning, confusion, agitation, increased heart rate, sweating, convulsions, stupor and coma
- Student should be familiar with the symptoms of hyperglycemia (high blood sugar), and hypoglycemia (low blood sugar)
- Student should have a diabetes health plan which includes medication, blood glucose monitoring, diet and exercise
- Student should not skip meals, and a quick source of sugar should be readily available in the case of signs of hypoglycemia
- Student should consider wearing a medical alert bracelet

Glyburide + Metformin

Glucovance[®]

Therapeutic Category (Common Uses)

- Oral hypoglycemic (second generation sulfonylurea + biguanide)
- Diabetes mellitus

Normal Dosage Range

Children	Not determined by the FDA
Adults	1.25 - 5 mg glyburide/500 mg metformin, 1 - 2 times per day with meals

Usual Administration Schedule

- 1 - 2 times a day

Medication Administration Considerations

- Take with breakfast or the first meal of the day

Common Side Effects & Adverse Reactions

- Headache
- Hypoglycemia (low blood sugar)
- Diarrhea
- Nausea
- Vomiting
- Weight loss
- Lactic acidosis

Proper Storage

- Room temperature

Other Comments Or Instructions

- Symptoms of low blood sugar include: tingling of lips and tongue, nausea, yawning, confusion, agitation, increased heart rate, sweating, convulsions, stupor and coma
- Student should be familiar with the symptoms of hyperglycemia (high blood sugar), and hypoglycemia (low blood sugar)
- Student should have a diabetes health plan which includes medication, blood glucose monitoring, diet and exercise
- Student should not skip meals, and a quick source of sugar should be readily available in the case of signs of hypoglycemia
- Student should consider wearing a medical alert bracelet

Granisetron

Kytril®

Therapeutic Category (Common Uses)

- Serotonin antagonist at the 5 HT3 receptor site
- Prevents/minimizes nausea and vomiting

Normal Dosage Range

Children	4 - 12 years, 0.5 mg/dose, 2 times a day
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12 years - Adult	1 mg, 2 times a day
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Usual Administration Schedule

- 1 - 2 times a day

Medication Administration Considerations

- May be taken on an empty stomach
- May repeat the dose if the student vomits within 30 minutes after taking the tablet

Common Side Effects & Adverse Reactions

- Diarrhea
- Constipation
- Headache
- Lightheadedness

Proper Storage

- Room temperature

Guanfacine

Tenex®

Therapeutic Category (Common Uses)

- Alpha-2 adrenergic agonist
- Hypertension
- Reduce frequency of migraine headache
- Reduce symptoms associated with narcotic withdrawal

Normal Dosage Range

Adults: Hypertension 1 mg per day.
Higher daily doses have been used, but adverse reactions increase significantly with doses > 3 mg/day.

Usual Administration Schedule

- Once a day (usually given at bedtime to minimize daytime sedation)

Common Side Effects & Adverse Reactions

- Sleepiness or insomnia
- Fatigue
- Headache
- Dizziness
- Confusion, depression
- Muscle numbness, weakness
- Fainting
- Heart palpitations
- Dry mouth
- Constipation
- Urinary incontinence
- Conjunctivitis
- Dermatitis
- Nausea
- Vomiting

Proper Storage

- Room temperature

Other Comments Or Instructions

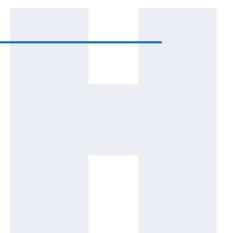
- May cause drowsiness or compromise motor skills. Use caution when driving, operating dangerous machinery, or engaged in potentially dangerous activities.

Haloperidol

Haldol®

Therapeutic Category (Common Uses)

- Sedative
- Antipsychotic
- Mental illness & agitation
- To control nervous tics & vocal utterances of Tourette's disorder
- Severe behavioral problem in children who are often combative & exhibit explosive hyper-excitable behaviors
- Short-term treatment of some hyperactive children



Normal Dosage Range

3 - 12 years	0.05 to 0.075 mg/kg per day. Severely disturbed psychotic children may require higher doses. In severely disturbed, non-psychotic children or in hyperactive children with behavior disorders, short-term administration may suffice. There is little evidence that behavior improvement is further enhanced by doses > 6 mg per day.
12 years - Adult	Starting dose of 0.5 - 1.5 mg, 3 times a day; up to a total of 10 mg a day. Individual dose requirements vary considerably and must be very carefully adjusted to obtain the optimal response.

Usual Administration Schedule

- 2 or 3 times a day

Medication Administration Considerations

- Dilute liquid in fruit juice
- Give with food or full glass of water to minimize stomach irritation
- Use with caution in hot weather; may increase risk of heatstroke

Common Side Effects & Adverse Reactions

- High blood pressure
- Low blood pressure upon arising
- Fast heart rate
- Drooling
- Shuffling walk
- Restlessness, anxiety
- Dizziness
- Unusual feeling of well-being
- Sleeplessness, drowsiness, confusion
- Depression
- Headache
- Menstrual irregularities
- Muscle spasms, trembling, aching or numbness, weakness
- Sensitivity to sunlight
- Impaired vision
- Dark-colored urine
- Stomach upset
- Diarrhea
- Nausea
- Loss of appetite

Overdosage Signs & Symptoms

- CNS depression, somnolence
- Hypotension, hypertension
- Agitation, restlessness, convulsions
- Fever
- Cardiac arrhythmias
- Coma

Proper Storage

- Room temperature

Other Comments Or Instructions

- May cause drowsiness or compromise motor skills. Use caution when driving, operating dangerous machinery, or engaged in potentially dangerous activities.
- May cause sensitivity to sunlight, avoid long exposure to the sun, use sunscreen and protective clothing until tolerance is known.

Heparin

Dalteparin

Enoxaparin

Fragmin®

Lovenox®

Therapeutic Category (Common Uses)

- Anticoagulant, sometimes called a “blood thinner”

Normal Dosage Range

Heparin	Child	As determined by physician
Heparin	Adult	10,000 - 40,000 units per day, via continuous IV pump
Dalteparin	Child	As determined by physician
Dalteparin	Adult	2,500 units once a day, via subcutaneous injection
Enoxaparin	Child	As determined by physician
Enoxaparin	Adult	30 - 40 mg once a day, via subcutaneous injection

Usual Administration Schedule

- Heparin is a large molecular weight molecule, found naturally in the human body. It must be given by intravenous infusion, usually with the use of an IV pump.
- Dalteparin and Enoxaparin are “low molecular weight” forms of heparin and can be injected subcutaneously once a day

Medication Administration Considerations

- Do not take aspirin or other anti-inflammatory medication while receiving heparin
- Follow school policy for student self administration
- Follow school policy for disposing of biohazardous waste

Common Side Effects & Adverse Reactions

- Bleeding (gums, scalp, bowel, urine, cuts)
- Pain at injection site
- Infection at injection site
- Bruising
- Allergic reaction (fever, rash)

Proper Storage

- Room temperature

Other Comments Or Instructions

- Blood coagulation tests are performed on a regular basis, and the dose is sometimes adjusted based on those test results.
- When changing to an oral anticoagulant (eg. warfarin) there is a 2 - 3 day overlap period when both drugs are given. During that time, warfarin doses are decreased each day.
- Avoid contact sports while taking this medication.

Motrin®, Advil®, Nuprin®, Medipren®, Children's Motrin®

Therapeutic Category (Common Uses)

- Non-Steroidal Anti-Inflammatory Drug (NSAID)
- Arthritis
- Pain (Do not take for pain for > 10 days, unless directed by physician)
- Painful Menstruation
- Fever (Do not take for fever for > 3 days, unless directed by physician)

Normal Dosage Range

USE	AGE	DOSE
Rheumatoid arthritis and osteoarthritis	Children	For children < 20 kg, the maximum daily dose = 400 mg For children 20 - 30 kg, the maximum daily dose = 600 mg For children 30 - 40 kg, the maximum daily dose = 800 mg
Rheumatoid arthritis and osteoarthritis	Adults	400 - 800 mg, 2 - 4 times a day. Do not exceed 3.2 gm per day.
Mild to Moderate Pain		200 mg every 4 - 6 hours, may increase to 400 mg every 4 - 6 hours. Do not exceed 1.2 gm per day unless directed by physician.
Painful Menstruation	Adults	Start at the earliest onset of pain. 200 mg every 4 - 6 hours, may increase to 400 mg every 4 - 6 hours. Do not exceed 1.2 gm daily unless directed by physician.
Fever	6 - 12 Years	If temperature is ≤ 39.2 C (102.5 F), the recommended dose is 5 mg/kg; if temperature is > 39.2 C (102.5 F), the recommended dose is 10 mg/kg; maximum dose is 40 mg/kg.
Fever	12 Years – Adult	200 mg every 4 - 6 hours; may increase to 400 mg every 4 - 6 hours. Do not exceed 1.2 gm daily unless directed by physician.

Usual Administration Schedule

- Give every 4 - 6 hours

Medication Administration Considerations

- Give medication soon after meals or with food, milk or antacids to minimize GI irritation
- Do not take with aspirin or other anti-inflammatory medication

Common Side Effects & Adverse Reactions

- Changes in vision
- Constipation
- Abdominal pain or cramps
- Dizziness
- Nervousness
- Unusual bruising or bleeding
- Sensitivity to sunlight
- Heartburn, indigestion

- Nausea
- Vomiting
- Itching
- Ringing in the ears
- Fatigue
- Allergic reaction including rash, itching, swelling, dizziness or breathing problems
- Black stools may be a sign of internal bleeding; a physician should be notified

Proper Storage

- Room temperature

Other Comments Or Instructions

- Ibuprofen may cause drowsiness, therefore avoid activities requiring mental alertness

Indinavir

Crixivan®

Therapeutic Category (Common Uses)

- Antiviral (HIV)

Normal Dosage Range

Children	200 - 800 mg every 8 hours
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Adults	800 mg every 8 hours
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Usual Administration Schedule

- Every 8 hours

Medication Administration Considerations

- Take with water, skim milk, juice (except grapefruit)
- Take 1 hour before or 2 hours after a full meal

Common Side Effects & Adverse Reactions

- Nausea
- Vomiting
- Stomach pain
- Constipation
- Gas
- Headache
- Diarrhea
- Weakness
- Insomnia
- Altered taste

Proper Storage

- Room temperature

Other Comments Or Instructions

- Student may be receiving other antiviral medications that may be given at the same time

Insulin

Humulin®, Novolin®, Lente®, Iletin®, Velosulin®

Therapeutic Category (Common Uses)

- Antidiabetic
- Produced naturally by the pancreas, insulin enables human cells to absorb and utilize glucose
- Insulin dependent diabetes mellitus
- Non-insulin dependent diabetes mellitus which is not responsive to diet and oral hypoglycemic medication

Normal Dosage Range

Children 0.5 - 1 unit/kg per day

Adolescents 0.8 - 1.2 units/kg per day

Adults 0.5 - 1 unit/kg per day

Usual Administration Schedule

- Insulin dosing and schedule is highly variable. The student will monitor their blood glucose level by using a blood glucose testing device. The dose will then be customized to accommodate the test results.
- Insulin preparations have different onset and duration of action. They may be ultra short, regular, or long onset and duration. Some preparations provide a combination of insulins, and some students will take 2 or more different insulin products to obtain the desired effect
- Insulin can be administered as an intermuscular injection, but is usually given as a sub-cutaneous injection, or by constant infusion via an insulin pump

Medication Administration Considerations

- Follow school policy for student self administration, blood glucose monitoring, and disposing of biomedical waste
- Give at room temperature, cold injections cause irritation at the injection site

Common Side Effects & Adverse Reactions

Insulin Overdose (treat with glucagon or glucose (sugar, candy, fruit))

- Increased heart rate
- Anxiety
- Hunger
- Tremors
- Pale color
- Headache
- Speech disturbance
- Sweating
- Coma

Other side effects and adverse reactions

- Skin flushing
- Nausea
- Numbness of mouth
- Itching
- Muscle weakness
- Blurred vision

Ipratropium

Proper Storage

- Room temperature, insulin is stable for more than a month at room temperature

Other Comments Or Instructions

- Most insulin is synthetic human insulin. Some preparations are derived from pork or beef pancreas, and are more likely to cause injection site irritation or other reactions. The student should not switch types of insulin, or strengths of insulin without a physician's order.

Atrovent®

Therapeutic Category (Common Uses):

- Bronchodilator
- Asthma and other breathing problems

Normal Dosage Range

Children	Metered Dose Inhaler: 1 - 2 puffs inhaled 3 - 4 times a day
Children	Solution for inhalation: 250 - 500 mcg/dose inhaled with a nebulizer. May mix in nebulizer and inhale with albuterol.
Adults	Metered Dose Inhaler: 2 puffs inhaled 4 times a day. Maximum dose is 12 puffs inhaled per day.

Usual Administration Schedule

- 3 - 4 times a day

Drug Administration Considerations

- Proper inhalation technique is very important. Follow the directions that are in the patient information leaflet, which is included with the medicine.
- Shake metered dose inhaler well before use
- To achieve the most benefit from this medicine it must be taken at regular intervals on a daily basis, even during symptom-free periods
- Do not "skip" doses
- If a dose is missed, a dose should be given as soon as possible. Do not take a double dose on the next scheduled dose.
- May use with bronchodilator medicine such as albuterol

Common Side Effects & Adverse Reactions:

- Cough
- Sore throat
- Upper respiratory infections
- Mouth irritation
- Dry mouth
- Blurred vision
- Dizziness
- Nervousness
- Headache
- Nausea

Proper Storage

- Store at room temperature away from direct sunlight

Ipratropium + Albuterol

Combivent®

Therapeutic Category (Common Uses):

- Bronchodilator
- Asthma and other breathing problems

Normal Dosage Range

Children	Not currently FDA approved for use in children
Adults	Metered Dose Inhaler: 1 - 2 puffs inhaled every 4 - 6 hours.
	Maximum dose is 12 puffs inhaled per day.

Usual Administration Schedule

- 3 - 4 times a day

Drug Administration Considerations

- Proper inhalation technique is very important. Follow the directions that are in the patient information leaflet, which is included with the medicine.
- Shake metered dose inhaler well before use.
- To achieve the most benefit from this medicine it must be taken at regular intervals on a daily basis, even during symptom-free periods.
- If a dose is missed, a dose should be given as soon as possible. Do not take a double dose on the next scheduled dose.
- Do not “skip” doses

Common Side Effects & Adverse Reactions:

- Cough
- Sore throat
- Upper respiratory infections
- Mouth irritation
- Dry mouth
- Blurred vision
- Dizziness
- Nervousness
- Headache
- Nausea
- Upset stomach
- Fatigue

Proper Storage

- Store at room temperature away from direct sunlight

Lansoprazole

Prevacid®

Therapeutic Category (Common Uses)

- Proton Pump Inhibitor (stomach acid inhibitor)
- H. pylori protocol for ulcers
- GERD (Gastro-Esophageal Reflux Disease)

Normal Dosage Range

Children	Not recommended
Adults	15 - 30 mg once a day

Usual Administration Schedule

- Once a day

Medication Administration Considerations

- May be taken with food or juice

Common Side Effects & Adverse Reactions

- Fatigue
- Dizziness
- Headache
- Abdominal pain
- Diarrhea
- Nausea
- Increased appetite
- Protein in urine
- Rash
- Tinnitus (ringing in ears)

Proper Storage

- Room temperature

Lamivudine

Epivir®

Therapeutic Category (Common Uses)

- Antiviral (HIV)

Normal Dosage Range

Children	2 mg/kg every 12 hours
Adults	150 mg every 12 hours

Usual Administration Schedule

- Every 12 hours

Medication Administration Considerations

- May be taken with or without food

Common Side Effects & Adverse Reactions

- Headache
- Nausea
- Vomiting
- Diarrhea
- Insomnia
- Muscle aches and weakness

Proper Storage

- Room temperature

Other Comments Or Instructions

- The student may be receiving other antiviral medication that may be given at the same time

Levofloxacin

Levaquin®

Therapeutic Category (Common Uses)

- Antibiotic (Quinolone class)
- Respiratory infection
- Sinus infection
- Otitis media (ear)
- Skin and wound infection

Normal Dosage Range

Children 250 mg once a day

Adults 250 - 500 mg once a day

Usual Administration Schedule

- Once a day

Medication Administration Considerations

- May be taken with food, but NOT with antacids, milk or cheese (dairy products)
- Take with plenty of fluid
- Avoid exposure to direct sunlight

Common Side Effects & Adverse Reactions

- Dizziness
- Insomnia
- Rash
- Headache
- Nausea
- Vomiting
- Muscular tremor

Proper Storage

- Room temperature

Lithium

Eskalith®, Lithonate®, Lithobid®

Therapeutic Category (Common Uses):

- Bipolar disorder (manic-depressive illness)
- Depression

Normal Dosage Range

Children 150 - 300 mg per day

Adults 900 mg - 1.2 gm per day

Usual Administration Schedule

- 2 - 4 times a day

Medication Administration Considerations

- Take immediately after meals or with food or milk to avoid stomach upset

- Extended release formulations should be swallowed intact and should not be chewed, crushed, or cut

Common Side Effects & Adverse Reactions

- Fine hand tremor (shaking)
- Excessive urination
- Thirst
- Nausea
- Vomiting
- Anorexia
- Dry mouth
- Hypotension (light-headed, dizziness)
- Slow heart rate
- Slurred speech
- Dizziness
- Restlessness
- Confusion, poor memory
- Fatigue
- Headache

Proper Storage

- Room temperature

Other Comments Or Instructions

- May cause drowsiness or compromise motor skills. Use caution when driving, operating dangerous machinery, or engaged in potentially dangerous activities.
- Drink 8 - 12 glasses of water or other liquid every day while taking this medication.
- Avoid large amounts of salty foods (i.e.: potato chips) while receiving medication.



Mebendazole



Vermox®

Therapeutic Category (Common Uses)

- Anthelmintic
- Pinworms
- Hookworms

Normal Dosage Range

Children	100 mg repeated in one week
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Adults	100 mg repeated in one week
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Usual Administration Schedule

- 2 doses, 1 week apart

Medication Administration Considerations

- Due to the contagious nature of these infestations, the entire family should be treated simultaneously
- Tablets are chewable

Common Side Effects & Adverse Reactions

- Abdominal pain
- Diarrhea
- Nausea
- Vomiting

Proper Storage

- Room temperature

Mefloquine

Lariam®

Therapeutic Category (Common Uses)

- Malaria

Normal Dosage Range

Children	1/4 - 1 tablet once a week
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Adults	5 tablet loading dose, then 1 tablet once a week
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Usual Administration Schedule

- Once a week

Common Side Effects & Adverse Reactions

- Difficulty concentrating
- Headache
- Insomnia
- Lightheadedness
- Dizziness
- Vertigo
- Fever
- Muscle ache (myalgia)
- Rash
- Vomiting
- Tinnitus

- Diarrhea
- Stomach pain
- Nausea

Proper Storage

- Room temperature

Mephenytoin

Mesantoin®

Therapeutic Category (Common Uses)

- Anticonvulsant
- Seizure disorders (eg. convulsions, epilepsy, fits)

Normal Dosage Range

Children 50 - 600 mg per day

Adults 100 - 800 mg per day

Usual Administration Schedule

- 3 times a day (every 8 hours)

Medication Administration Considerations

- Abrupt discontinuation of medication may precipitate seizures
- Do not “skip” doses
- If a dose is missed, a dose should be given as soon as possible. Do not take a double dose on the next scheduled administration time.
- Give dose at same time each day
- Administer tablets with a full glass of water

Common Side Effects & Adverse Reactions

- Drowsiness
- Fatigue
- Unsteady while standing/walking
- Nausea
- Vomiting
- Rash
- Dizziness
- Sleeplessness
- Irritability

Proper Storage

- Store at room temperature away from direct sunlight

Other Comments Or Instructions

- Available as: Tablets: 100 mg
- May cause drowsiness or compromise motor skills. Use caution when driving, operating dangerous machinery, or engaged in potentially dangerous activities.

Mephobarbital

Mebaral®

Therapeutic Category (Common Uses)

- Anti-convulsant
- Seizure disorders (eg. convulsions, epilepsy, fits)

Normal Dosage Range

Children < 5 years 16 to 32 mg, 3 or 4 times a day

Children > 5 years 32 to 64 mg, 3 or 4 times a day

Adults 400 - 600 mg, 3 or 4 times a day

Usual Administration Schedule

- 3 - 4 times a day

Medication Administration Considerations

- Abrupt discontinuation of medication may precipitate seizures
- Do not “skip” doses
- If a dose is missed, a dose should be given as soon as possible.
Do not take a double dose on the next scheduled administration time.
- Give dose at same time each day
- Administer tablets with a full glass of water
- Swallow tablets whole, do not chew

Common Side Effects & Adverse Reactions

- Agitation
- Confusion
- Dizziness
- Anxiety
- Headache

Proper Storage

- Store at room temperature away from direct sunlight

Other Comments Or Instructions

- Available as 32, 50 and 100 mg tablets
- May cause drowsiness or compromise motor skills. Use caution when driving, operating dangerous machinery, or engaged in potentially dangerous activities.

Mercaptopurine

Purinethol®

Therapeutic Category (Common Uses)

- Cancer chemotherapy

Normal Dosage Range

Children	Starting Dose	2.5 - 5 mg/kg per day
Children	Maintenance	1.5 - 2.5 mg/kg per day
Adult	Starting Dose	2.5 - 5 mg/kg per day
Adult	Maintenance	1.5 - 2.5 mg/kg per day

Usual Administration Schedule

- Every 12 - 24 hours

Medication Administration Considerations

- Take on an empty stomach, 1 - 2 hours prior to food
- Encourage hydration, drink plenty of fluids
- Do not double up missed doses
- Doses are decreased if the patient has renal (kidney) dysfunction

Common Side Effects & Adverse Reactions

- Diarrhea
- Nausea
- Vomiting
- Skin rash and darkening
- Bruising
- Mouth sores
- Muscle weakness, lethargy
- Loss of appetite
- Headaches

Proper Storage

- Room temperature

Mesalamine

Asacol® Tablets, Pentasa® Capsules, Rowasa® Rectal Suppositories and Rectal Suspension

Therapeutic Category (Common Uses)

- Inflammatory bowel disease

Normal Dosage Range

Children	Tablets	400 - 800 mg, 1 - 2 times a day
Adults	Tablets	800 mg, 3 times a day
Adults	Capsules	1 gram, 4 times a day
Adults	Suppository	500 mg, 2 times a day
Adults	Suspension	Instill rectally once a day at bedtime

Usual Administration Schedule

- Depends on formulation

Medication Administration Considerations

- Swallow tablets whole, do not crush or chew

Common Side Effects & Adverse Reactions

- Ringing in ears (tinnitus)
- Headache
- Dizziness
- Drowsiness
- Confusion
- Sweating
- Hyperventilation
- Vomiting
- Diarrhea

Proper Storage

- Best if kept in refrigerator, however room temperature is acceptable
- Avoid excessive handling of suppository, which will melt at body temperature

Other Comments Or Instructions

- Intact or partially intact tablets may be found in the stools. Notify physician if this occurs repeatedly.

Metformin

Glucophage®, Glucophage XR PI®

Therapeutic Category (Common Uses)

- Oral hypoglycemic (biguanide)
- Diabetes mellitus

Normal Dosage Range

Children, Ages 10 -16 up to 2,000 mg/day

Adults 1,500 - 2,550 mg/day in 2 - 3 divided doses with meals

Usual Administration Schedule

- Glucophage®: 2 - 3 times a day
- Glucophage XR® PI: Once a day

Medication Administration Considerations

- Take with meals

Common Side Effects & Adverse Reactions

- Weight loss
- Hypoglycemia (low blood sugar)
- Diarrhea
- Nausea
- Vomiting
- Lactic acidosis

Proper Storage

- Room temperature

Other Comments Or Instructions

- Symptoms of low blood sugar include: tingling of lips and tongue, nausea, yawning, confusion, agitation, increased heart rate, sweating, convulsions, stupor and coma
- Student should be familiar with the symptoms of hyperglycemia (high blood sugar), and hypoglycemia (low blood sugar)
- Student should have a diabetes health plan which includes medication, blood glucose monitoring, diet and exercise
- Student should not skip meals, and a quick source of sugar should be readily available in the case of signs of hypoglycemia
- Student should consider wearing a medical alert bracelet

Methotrexate

Methotrexate,[®] Folex,[®] PFS,[®] Rheumatrex[®]

Therapeutic Category (Common Uses)

- Folic acid inhibitor
- Cancer chemotherapy
- Immunosuppression
- Juvenile Rheumatoid Arthritis (JRA)
- Dermatomyositis

Normal Dosage Range

Dermatomyositis	Oral	15 - 20 mg/M ² per week, or 0.3 - 1 mg/kg per week, as single weekly dose
JRA	Oral, IM	5 - 15 mg/M ² per week, as single dose, or divided between 3 doses given 12 hours apart
Cancer	Oral, IM	7.5 - 30 mg/M ² per week, or every 2 weeks
Cancer	IV	10,000 - 18,000 mg/M ² , given in a healthcare institution. This dose requires leucovorin to be administered as a “rescue medication”, and should not be given in school.

Usual Administration Schedule

- Every 6 - 24 hours, or once a week depending on the condition being treated

Medication Administration Considerations

- Take with food and fluid
- Encourage hydration, drink plenty of fluids
- Do not double up missed doses

Common Side Effects & Adverse Reactions

- Nausea
- Vomiting
- Mouth sores, mucocitis
- Diarrhea
- Unusual bleeding or bruising
- Rash
- Flu-like symptoms
- Headache
- Drowsiness
- Tingling, numbness
- Blurred vision
- Hair loss
- Photosensitivity requiring use of a sun screen

Proper Storage

- Room temperature

Other Comments Or Instructions

- May cause sun sensitivity, allow student to use a sun block/screen

Methylprednisolone

Medrol®

Therapeutic Category (Common Uses)

- Corticosteroid
- Anti-inflammatory used for swelling and inflammation
- Skin disease
- Allergic conditions
- Asthma and other respiratory conditions
- Cancer
- Anemia
- Arthritis
- Replacement of adrenal gland hormones

Normal Dosage Range

- 4 - 48 mg per day, starting low and adjusting the dose upward until the desired results are obtained
- When the medication is discontinued, the dose must be slowly tapered downward, following a prescribed dose reduction schedule designed to prevent medical problems

Usual Administration Schedule

- Every 6 - 12 hours

Medication Administration Considerations

- Take with food
- Doses need to be taken on a rigid schedule, do not double up missed doses

Common Side Effects & Adverse Reactions Nausea

- Vomiting
- Increase appetite with weight gain
- Hyperglycemia
- Dizziness
- Swelling and puffiness of the face and eyes
- Blurred vision
- Unusual tiredness or weakness
- Increased thirst
- Irregular heartbeat
- Menstrual problems
- Blood in urine or feces
- Confusion, excitement, restlessness, and other mood swings

Proper Storage

- Room temperature

Methsuximide

Celontin®

Therapeutic Category (Common Uses)

- Anti-convulsant
- Seizure disorders (eg. convulsions, epilepsy, fits)

Normal Dosage Range

Children	15 - 30 mg/kg per day up to 1,200 mg per day, divided into 3 - 4 doses
Adults	300 - 1,200 mg per day, divided into 3 - 4 doses

Usual Administration Schedule

- 3 - 4 times a day

Medication Administration Considerations

- Administer capsules with a full glass of water
- Give doses at same time each day
- Abrupt discontinuation of medication may precipitate seizures
- Do not “skip” doses

Common Side Effects & Adverse Reactions

- Nausea
- Vomiting
- Drowsiness
- Unsteady on feet

Proper Storage

- Store at room temperature away from direct sunlight

Other Comments Or Instructions

- May be taken in combination with other medications to control seizures
- Available as 100 and 300 mg capsules
- May cause drowsiness or compromise motor skills. Use caution when driving, operating dangerous machinery, or engaged in potentially dangerous activities.

Methylphenidate

Ritalin,[®] OROS,[®] Concerta[®]

Therapeutic Category (Common Uses)

- Attention Deficit Disorder (ADD)
- Attention Deficit Hyperactivity Disorder (ADHD)
- Narcolepsy

Normal Dosage Range

Children > 6 years	5 mg before breakfast and lunch to start. Every week the dose can be increased by 5 - 10 mg per day up to a maximum dose of 60 mg per day.
Adults	10 - 60 mg per day in 2 - 3 divided doses

Usual Administration Schedule

- Give before meals or with a snack
- Give sustained-release tablets at 8 hr intervals
- Concerta[®] is available as an 18 mg, 36 mg, and 54 mg dose to be taken once a day in the morning. The effects last 18 hours, enabling a medication respite during sleeping hours.

Medication Administration Considerations

- To avoid sleeplessness administer last daily dose at least 6 hours before bedtime
- Minimize use of caffeine or other stimulants while taking amphetamines
- May impair ability to drive or perform other tasks requiring alertness. May mask extreme fatigue and cause dizziness.
- Do not crush or allow student to chew sustained-release tablet. Instruct student to swallow sustained-release tablet whole.

Common Side Effects & Adverse Reactions

- Nervousness
- Difficulty sleeping
- Appetite loss

- Nausea
- Abdominal pain
- Dizziness
- Rapid heart rate, pounding in the chest
- Headache

Overdose Signs & Symptoms

- Vomiting
- Agitation
- Muscle twitching, convulsions
- Sweating
- Flushing
- Mood changes eg. euphoria, confusion, hallucinations, delirium

Proper Storage

- Room temperature
- Controlled substance security

Other Comments Or Instructions

- Parents/guardians should be cautioned to let the teacher and/or school nurse know when the doses have been increased and to provide the school with the most current prescription labeling.
- May cause drowsiness or compromise motor skills. Use caution when driving, operating dangerous machinery, or engaged in potentially dangerous activities.

Metoclopramide

Reglan®, Maxolon®

Therapeutic Category (Common Uses)

- Antiemetic
- Heartburn (gastroesophageal reflux)
- Prevent/minimize nausea and vomiting

Normal Dosage Range

Children	2.5 - 10 mg per dose
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Adults	10 - 15 mg per dose
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Usual Administration Schedule

- 2 - 4 times per day

Medication Administration Considerations

- Should be taken 30 minutes before meals

Common Side Effects & Adverse Reactions

- Restlessness
- Drowsiness
- Dizziness
- Nausea
- Diarrhea

Proper Storage

- Room temperature

Metronidazole

Flagyl®

Therapeutic Category (Common Uses)

- Antibiotic
- Amebicide
- Skin infections
- Vaginal infections

Normal Dosage Range

Children 15 - 50 mg/kg per day

Adults 250 - 750 mg, 3 times a day

Usual Administration Schedule

- 3 times a day for 7 - 21 days

Medication Administration Considerations

- May be taken with food to prevent upset stomach

Common Side Effects & Adverse Reactions

- Dizziness
- Headache
- Nausea
- Diarrhea
- Loss of appetite
- Vomiting

Proper Storage

- Room temperature

Other Comments Or Instructions

- This medication colors the urine reddish brown
- This medication has an “antabuse” effect and will cause severe nausea if taken with alcohol
- Available as a cream for vaginal or skin infections

Miglitol

Glyset®

Therapeutic Category (Common Uses)

- Oral hypoglycemic (alpha-glucosidase inhibitor)
- Diabetes mellitus

Normal Dosage Range

Children Not determined by the FDA

Adults 150 – 300 mg per day in 3 divided doses at the start of each meal

Usual Administration Schedule

- 3 times a day

Medication Administration Considerations

- Take at the start of a meal

Common Side Effects & Adverse Reactions

- Hypoglycemia (low blood sugar)
- Flatulence
- Diarrhea

- Abdominal pain

Proper Storage

- Room temperature

Other Comments Or Instructions

- Symptoms of low blood sugar include: tingling of lips and tongue, nausea, yawning, confusion, agitation, increased heart rate, sweating, convulsions, stupor and coma
- Student should be familiar with the symptoms of hyperglycemia (high blood sugar), and hypoglycemia (low blood sugar)
- Student should have a diabetes health plan which includes medication, blood glucose monitoring, diet and exercise
- Student should not skip meals, and a quick source of sugar should be readily available in the case of signs of hypoglycemia
- Student should consider wearing a medical alert bracelet

Montelukast

Singulair®

Therapeutic Category (Common Uses)

- Leukotriene modifier
- Bronchial anti-inflammatory
- Asthma and other pulmonary disorders

Normal Dosage Range

Age 2 - 5 years 4 mg at bedtime

Age 6 - 14 years 5 mg at bedtime

> 15 years 10 mg at bedtime

Usual Administration Schedule

- At bedtime

Medication Administration Considerations

- Available in chewable tablets (4 and 5 mg), and coated tablet (10 mg)
- May be taken with a meal or light snack
- **DOES NOT** provide instant relief and cannot be used to treat a sudden asthma attack
- It must be used on a regular basis, do not skip doses if symptoms are not present

Common Side Effects & Adverse Reactions

Side effects are rare or uncommon, and include the following:

- Dizziness
- Fever
- Skin rash and itching
- Diarrhea
- Drowsiness
- Headache
- Hoarseness or sore throat
- Indigestion or stomach ache
- Runny or stuffy nose

Proper Storage

- Room temperature



Viracept®

Therapeutic Category (Common Uses)

- Antiviral (HIV)

Normal Dosage Range

Children	2 - 13 Years	20 - 30 mg/kg every 8 hours
Children > 13 Years	750 mg	every 8 hours
Adults	750 mg	every 8 hours

Usual Administration Schedule

- Every 8 hours

Medication Administration Considerations

- Take with a meal or light snack

Common Side Effects & Adverse Reactions

- Diarrhea
- Stomach pain
- Nausea and vomiting
- Dizziness
- Gas

Proper Storage

- Room temperature

Other Comments Or Instructions

- Students may be receiving other antiviral medications that may be given at the same time

Nedocromil Inhalation Aerosol

Tilade®

Therapeutic Category (Common Uses)

- Mast cell protectant (prevents the release of histamine by the mast cells located in the lungs)
- Asthma and other breathing problems

Normal Dosage Range

Children	1 - 2 puffs inhaled 4 times a day. The dose may be reduced to 2 times a day after improvement in condition.
Adults	2 puffs inhaled 4 times a day. The dose may be reduced to 2 times a day after improvement in condition.

Usual Administration Schedule

- 2 - 4 times a day

Medication Administration Considerations

FOR INHALATION

- Shake well before using
- Clean the inhaler before and after each use
- Completely exhale, then time the dose to get full effect when you inhale. Wait ten seconds, and slowly exhale.
- Wait 1 minute before inhaling a second dose
- Rinse mouth with water, spit out the water, do not swallow

- Nedocromil must be taken on a daily basis, even if symptoms are not present
- Do not “skip” doses
- If an inhaled bronchodilator medication is also prescribed, use it first

Common Side Effects & Adverse Reactions

- Skin rash and itching (hives)
- Swelling of face, lips, or eyelids
- Continued coughing or wheezing
- Bitter taste
- Headache
- Cough or dry throat
- Indigestion or stomach ache
- Nausea
- Vomiting
- Runny or stuffy nose
- Upper respiratory tract infection

Proper Storage

- Room Temperature

Nevirapine

Viramune®

Therapeutic Category (Common Uses)

- Antiviral (HIV)

Normal Dosage Range

Children > 16 years 200 mg once a day, increasing to 2 times a day

Adults 200 mg once a day, increasing to 2 times a day

Usual Administration Schedule

- Dose will be increased from once a day to 2 times a day as student tolerates the medication.

Medication Administration Considerations

- May be taken with or without food

Common Side Effects & Adverse Reactions

- Nausea
- Vomiting
- Headache

NOTIFY A PHYSICIAN IMMEDIATELY IF ANY OF THE FOLLOWING OCCUR:

- Rash, itching
- Fever
- Blistering, mouth sores
- Pink eye

Proper Storage

- Room temperature



Niclosamide

Therapeutic Category (Common Uses)

- Anthelmintic
- Tapeworm

Normal Dosage Range

Children	2 - 3 tablets as a single dose, repeated in 1 week
Adults	4 tablets as a single dose, repeated in 1 week

Usual Administration Schedule

- 2 doses, 1 week apart

Medication Administration Considerations

- Chewable tablets
- Take with food

Common Side Effects & Adverse Reactions

- Drowsiness
- Dizziness
- Headache
- Nausea
- Vomiting
- Loss of appetite
- Diarrhea
- Constipation

Proper Storage

- Room temperature

Floxin,[®] Ocuflax Ophthalmic[®]

Therapeutic Category (Common Uses)

- Antibiotic (Quinolone class)
- Respiratory infection
- Sinus infection
- Skin and wound infection
- Conjunctivitis
- Outer ear infection

Normal Dosage Range

Drops: Ophthalmic	1 – 2 drops in affected eye 4 times a day
Drops: Otic (ear)	5 - 10 drops in affected ear 2 times a day
Tablets: Children	Not recommended
Tablets: Adults	200 - 400 mg, 2 times a day for 10 days

Usual Administration Schedule

- 2 times a day

Common Side Effects & Adverse Reactions

- Chest pain
- Headache
- Insomnia
- Dizziness
- Fatigue
- Somnolence
- Sleep disorders
- Nervousness
- Pain
- Rash
- Diarrhea
- Vomiting
- Abdominal cramps
- Decreased appetite
- Nausea
- Visual disturbances

Proper Storage

- Room temperature

Omeprazole

Prilosec®

Therapeutic Category (Common Uses)

- Proton pump inhibitor (stomach acid inhibitor)
- Ulcers
- H. Pylori regimen
- Gastroesophageal Reflux Disease (GERD)

Normal Dosage Range

Children Not recommended

Adults 20 - 40 mg per day

Usual Administration Schedule

- Once a day

Medication Administration Considerations

- Take on an empty stomach, before eating
- Do not crush, chew or open the capsule

Common Side Effects & Adverse Reactions

- Headache
- Dizziness
- Rash
- Diarrhea
- Abdominal pain
- Nausea
- Vomiting
- Constipation
- Taste alterations
- Muscle weakness and back pain
- Upper respiratory infection
- Cough

Proper Storage

- Room temperature

Ondansetron

Zofran®

Therapeutic Category (Common Uses)

- 5HT₃ Serotonin antagonist
- Prevents/minimizes nausea and vomiting

Normal Dosage Range

Children 4 - 12 years 4 mg every 8 hours

Children > 12 years 8 mg every 8 hours

Adults 8 mg every 8 hours

Usual Administration Schedule

- 1 - 3 times a day

Medication Administration Considerations

- May be taken on an empty stomach

Common Side Effects & Adverse Reactions

- Diarrhea
- Constipation
- Headache
- Lightheadedness

Proper Storage

- Room temperature

Other Comments Or Instructions

- May repeat the dose if the student vomits within 30 minutes of taking the tablet

Orlistat

Xenical®

Therapeutic Category (Common Uses)

- Lipase inhibitor (prevents fat digestion)
- Obesity

Normal Dosage Range

Children Not recommended

Adults 120 mg, 3 times a day

Usual Administration Schedule

- Take with meals up to 3 times a day

Medication Administration Considerations

- Patient should be on a nutritionally balanced, reduced-calorie diet
- Omit drug if meal is missed, or contains no fat

Common Side Effects & Adverse Reactions

- Anxiety
- Arthritis
- Back pain
- Depression
- Dizziness
- Dry skin
- Fatty/oily stool
- Diarrhea
- Fecal urgency, frequency
- Headache
- Rash
- Sleep disorder
- Tendonitis

Proper Storage

- Room temperature

Other Comments Or Instructions

- Multiple vitamin supplements are recommended while taking this medication

Oxamniquine

Vansil®

Therapeutic Category (Common Uses)

- Anthelmintic
- Schistosoma mansoni infection

Normal Dosage Range

Children	10 mg/kg per dose. Give 2 doses, 2 - 8 hours apart
Adults	15 - 30 mg/kg once as a single dose

Usual Administration Schedule

- Once a day

Medication Administration Considerations

- Take with food

Common Side Effects & Adverse Reactions

- Dizziness
- Drowsiness
- Headache
- Orange/Red discoloration of the urine

Proper Storage

- Room temperature

Oxybutynin

Ditropan®, Ditropan XL®, Dridase®

Therapeutic Category (Common Uses)

- Anticholinergic
- Urinary bladder control

Normal Dosage Range

Children < 5 years	0.4 - 0.8 mg/kg per day, divided into 2 - 4 doses
Children > 5 years	10 - 15 mg/day, divided into 2 - 3 doses
Adults	10 - 20 mg/day, divided into 2 - 4 doses

Usual Administration Schedule

- Take with breakfast, lunch, dinner, and at bedtime
- Extended release tablet (Ditropan XL®) is given once a day

Medication Administration Considerations

- Swallow the extended release drug whole, do not crush, chew, or cut

Common Side Effects & Adverse Reactions

- Children are more prone to having heat related problems (due to medicine blocking sweating)
- Students easily become flushed outdoors in heat and may need to come indoors/in shade and be well hydrated
- Drowsiness
- Constipation
- Rash
- Nausea
- Vomiting
- Blurred vision
- Increased or irregular heart rate

Proper Storage

- Room temperature

Pancrelipase, Pancreatin

Pancrease[®], Kotazyme[®], Ultrase[®], Viokase[®], Creon[®]

Therapeutic Category (Common Uses)

- Digestive enzyme
- Enzyme replacement in cystic fibrosis

Normal Dosage Range

Typical Dose for Children: 4,000 - 12,000 units of lipase per dose for therapeutic tablets, or 700 mg (0.7 grams) of powder per dose

Children < 4 years	1,000 units lipase/kg per meal
Children 4+ years	500 units lipase/kg per meal
Adults	4,000 - 10,000 units of lipase per dose

Usual Administration

- Before or with each meal and snack, snack doses usually one-half of meal dose
- Daily doses should include three meals and two snacks

Medication Administration Considerations

- Only capsules which are not coated can be opened up and shaken on small amount of soft non-hot food (i.e. applesauce, Jell-O, pudding) which does not require chewing and must be swallowed immediately, followed by a glass of water or juice
- Some products are enteric coated which CANNOT be crushed or chewed
- Do not inhale powder dosage form or powder from capsules as it is irritating

Common Side Effects & Adverse Reactions

- Nausea
- Cramps
- Diarrhea

Proper Storage

- Room Temperature

Paramethadione

Paradione[®]

Therapeutic Category (Common Uses)

- Anticonvulsant
- Seizure disorders to control convulsions, epilepsy, fits

Normal Dosage Range

Children	300 - 900 mg per day
Adults	900 - 2,400 mg per day

Usual Administration Schedule

- 3 - 4 times a day

Medication Administration Considerations

- Abrupt discontinuation of medication may precipitate seizures
- Do not "skip" doses
- If a dose is missed, a dose should be given as soon as possible. Do not take a double dose on the next scheduled administration time.
- Give dose at same time each day
- Administer capsules with a full glass of water

Common Side Effects & Adverse Reactions

- Drowsiness
- Blurred vision
- Nausea
- Vomiting
- Diarrhea

Proper Storage

- Store at room temperature away from direct sunlight

Other Comments Or Instructions

- Available as 150 mg and 300 mg capsules and 300 mg/ml oral solution
- May cause drowsiness or compromise motor skills. Use caution when driving, operating dangerous machinery, or engaged in potentially dangerous activities.

Penicillin - V

Pen Vee K[®], V-Cillin-K[®]

Therapeutic Category (Common Uses)

- Antibiotic
- Respiratory infection
- Sinus infection
- Otitis media (ear)
- Skin and wound infection

Normal Dosage Range

Children	25 - 50 mg/kg per day
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Adults	250 mg - 500 mg per dose
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Usual Administration Schedule

- 3 or 4 times a day

Medication Administration Considerations

- Take on an empty stomach.

Common Side Effects & Adverse Reactions

- Allergic reactions, including difficulty in breathing, skin rash, hives or itching
- Nausea
- Vomiting
- Stomach upset

Proper Storage

- Room temperature

Phenobarbital

Luminal[®]

Therapeutic Category (Common Uses)

- Tranquilizer
- Seizure disorders to control convulsions, epilepsy, fits

Normal Dosage Range

Children	2 - 6 mg/kg per day
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Adults	100 - 300 mg per day
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Usual Administration Schedule

- 2 - 4 times a day

Medication Administration Considerations

- Abrupt discontinuation of medication may precipitate seizures
- Do not “skip” doses
- If a dose is missed, a dose should be given as soon as possible. Do not take a double dose on the next scheduled administration time.
- Give dose at same time each day
- Administer tablets with a full glass of water
- Oral solution may be mixed with water or juice to improve taste.
- Do not chew the extended release tablet, it must be swallowed whole

Common Side Effects & Adverse Reactions

- Sleepiness
- Nausea
- Vomiting
- Over excitability

Proper Storage

- Store at room temperature
- Controlled substance security

Other Comments Or Instructions

- Available as:
 - Tablets: 8 mg, 15 mg, 16 mg, 30 mg, 32 mg, 60 mg, 65 mg and 100 mg
 - Capsules: 16 mg
 - Oral Solution: 15 mg/5 ml and 20 mg/5 ml
 - Elixir: 20 mg/5 ml
 - Injectable form also available
- May cause drowsiness or compromise motor skills. Use caution when driving, operating dangerous machinery, or engaged in potentially dangerous activities.

Phensuximide

Milontin®

Therapeutic Category (Common Uses)

- Anticonvulsant
- Seizure disorders to control convulsions, epilepsy, fits

Normal Dosage Range

Children	1,000 - 3,000 mg per day
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Adults	1,000 - 3,000 mg per day
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Usual Administration Schedule

- 2 - 3 times a day

Medication Administration Considerations

- Abrupt discontinuation of medication may precipitate seizures
- Do not skip doses
- If a dose is missed, a dose should be given as soon as possible. Do not take a double dose on the next scheduled administration time.

Common Side Effects & Adverse Reactions

- Nausea
- Vomiting
- Drowsiness
- Unsteady on feet

Phentermine

Proper Storage

- Store at room temperature away from direct sunlight

Other Comments Or Instructions

- Available as 500 mg capsules
- May cause drowsiness or compromise motor skills. Use caution when driving, operating dangerous machinery, or engaged in potentially dangerous activities.

Adipex-P,[®] Fastin,[®] Iomamin,[®] Zantryl[®]

Therapeutic Category (Common Uses)

- Anorexiant (appetite suppressant)
- Obesity

Normal Dosage Range

Children 3 - 15 years 5 - 15 mg/day for 4 weeks

Adults 8 mg, 3 times a day, 30 minutes before meals, or
15 - 37.5 mg before breakfast

Usual Administration Schedule

- Once a day
- 3 times a day before meals

Common Side Effects & Adverse Reactions

- Hypotension
- Tachycardia
- Arrhythmias
- Reflex tachycardia
- Anginal pain
- Orthostatic hypotension
- Nausea
- Vomiting
- Diarrhea
- Peptic ulcer
- Abdominal pain
- Nasal congestion

Proper Storage

- Room temperature

Other Comments Or Instructions

- May cause drowsiness or compromise motor skills. Use caution when driving, operating dangerous machinery, or engaged in potentially dangerous activities.

Dilantin®

Therapeutic Category (Common Uses)

- Anticonvulsant
- Seizure disorders to control convulsions, epilepsy, fits

Normal Dosage Range

Children 4 - 8 mg/kg per day

Adults 300 - 600 mg per day

Usual Administration Schedule

- 1 - 3 times a day

Medication Administration Considerations

- Abrupt discontinuation of medication may precipitate seizures
- Do not “skip” doses
- If a dose is missed, a dose should be given as soon as possible. Do not “double up” or take a double dose on the next scheduled administration time
- Give dose at same time each day
- May give with food or milk to minimize stomach upset. If dose is given with food, make sure all doses are given with food. If some doses are taken with food, and others are not, there will be a variable amount of medication absorbed into the body.
- Administer capsules with a full glass of water
- Shake suspension well prior to administration of dose

Common Side Effects & Adverse Reactions

- Drowsiness
- Fatigue
- Unsteady while standing or walking
- Nausea
- Rash
- Dizziness
- Sleeplessness
- Irritability
- Blurred vision
- Confusion

Proper Storage

- Store at room temperature away from direct sunlight

Other Comments Or Instructions

- Available as:
 - Injection
 - Tablets: (chewable) 50 mg
 - Capsules: 30 mg, 100 mg
 - Oral suspension: 30 mg/5 ml, 125 mg/5 ml
- The dose is frequently adjusted. If you do not get the desired response, check to see if the dose has been changed.
- May cause drowsiness or compromise motor skills. Use caution when driving, operating dangerous machinery, or engaged in potentially dangerous activities.

Pioglitazone

Actos®

Therapeutic Category (Common Uses)

- Oral hypoglycemic (thiazolidinedione)
- Diabetes mellitus

Normal Dosage Range

Children Not determined by the FDA

Adults 15 - 45 mg once a day

Usual Administration Schedule

- Once a day

Medication Administration Considerations

- May give with or without meals

Common Side Effects & Adverse Reactions

- Hypoglycemia (low blood sugar)
- Weight gain
- Edema

Proper Storage

- Room temperature

Other Comments Or Instructions

- Symptoms of low blood sugar include: tingling of lips and tongue, nausea, yawning, confusion, agitation, increased heart rate, sweating, convulsions, stupor and coma
- Student should be familiar with the symptoms of hyperglycemia (high blood sugar), and hypoglycemia (low blood sugar)
- Student should have a diabetes health plan which includes medication, blood glucose monitoring, diet and exercise
- Student should not skip meals, and a quick source of sugar should be readily available in the case of signs of hypoglycemia
- Student should consider wearing a medical alert bracelet

Piperazine

Zermizine®

Therapeutic Category (Common Uses)

- Anthelmintic
- Pinworms
- Roundworms

Normal Dosage Range

Children 65 mg/kg per day (not to exceed 2,500 mg/day)
as a single daily dose for 7 days

Adults 65 mg/kg per day (not to exceed 3,500 mg/day)
as a single daily dose for 7 days

Usual Administration Schedule

- Once a day for 7 days

Medication Administration Considerations

- Take on empty stomach

Common Side Effects & Adverse Reactions

- Headache
- Loss of balance

- Dizziness
- Vomiting
- Diarrhea
- Rash

Proper Storage

- Room temperature

Other Comments Or Instructions

- When treating pinworms, the entire family should be treated simultaneously

Pirbuterol

Maxair®

Therapeutic Category (Common Uses):

- Bronchodilator
- Asthma
- Bronchitis

Normal Dosage Range

Children > 12 years	2 puffs inhaled every 4 - 6 hours. Maximum dose is 12 puffs per day.
Adults	2 puffs inhaled every 4 - 6 hours. Maximum dose is 12 puffs per day.

Usual Administration Schedule

- Every 4 - 6 hours

Drug Administration Considerations

- Proper inhalation technique is very important. Follow the directions that are in the patient information leaflet, which is included with the medicine.
- To achieve the most benefit from this medicine it must be taken at regular intervals on a daily basis, even during symptom-free periods.
- If a dose is missed, a dose should be given as soon as possible. Do not take an extra dose at the next scheduled time.
- Do not “skip” doses
- Shake well before using
- If more than one inhalation per dose is necessary, wait at least 1 minute between inhalations

Common Side Effects & Adverse Reactions

- Tremor
- Nervousness
- Nausea
- Vomiting
- Diarrhea
- Headache
- Dizziness
- Taste changes

Proper Storage

- Store at room temperature away from direct sunlight

Praziquantel

Biltricide®

Therapeutic Category (Common Uses)

- Anthelmintic
- Schistosoma species

Normal Dosage Range

Children	20 - 50 mg/kg per day, divided between 3 doses, for 2 - 14 days depending on the type of worm.
Adults	20 - 50 mg/kg per day, divided between 3 doses, for 2 - 14 days depending on the type of worm

Usual Administration Schedule

- Every 8 hours.
- May be given once a day as a single dose for tapeworms.

Medication Administration Considerations

- Take with food
- Do not chew tablets because of bitter taste

Common Side Effects & Adverse Reactions

- Dizziness
- Drowsiness
- Headache
- Malaise, lethargy
- Abdominal pain
- Loss of appetite
- Nausea
- Vomiting

Proper Storage

- Room temperature

Other Comments Or Instructions

- May cause drowsiness or compromise motor skills. Use caution when driving, operating dangerous machinery, or engaged in potentially dangerous activities.

Prednisolone

Delta-Cort®, Prelone®, Pediapred®

Therapeutic Category (Common Uses)

- Glucocorticoid steroid
- Anti-inflammatory
- Swelling
- Allergic conditions
- Asthma and other respiratory conditions
- Cancer
- Anemia
- Arthritis
- Replacement of adrenal gland hormones

Normal Dosage Range

Children	0.5 - 2 mg/kg per day
Adults	0.5 - 2 mg/kg per day

Usual Administration Schedule

- Every 8 - 24 hours

Medication Administration Considerations

- Take with food
- Doses need to be taken on a rigid schedule
- Do not double up missed doses unless on a daily or every other day schedule

Common Side Effects & Adverse Reactions

- Nausea
- Vomiting
- Increase appetite with weight gain
- Hyperglycemia
- Dizziness
- Edema (swelling and puffiness of the face and eyes)
- Blurred vision
- Unusual tiredness or weakness
- Confusion, excitement, restlessness, and other mood swings
- Increased thirst
- Irregular heartbeat
- Menstrual problems
- Blood in urine or feces

Proper Storage

- Room temperature
- Suspension must be shaken vigorously

Prednisone

Deltasone®

Therapeutic Category (Common Uses)

- Glucocorticoid steroid
- Anti-inflammatory
- Swelling
- Allergic conditions
- Asthma and other respiratory conditions
- Cancer
- Anemia
- Arthritis
- Replacement of adrenal gland hormones

Normal Dosage Range

Children	0.5 - 2 mg/kg per day
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Adults	0.5 - 2 mg/kg per day
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Usual Administration Schedule

- Every 8 to 24 hours

Medication Administration Considerations

- Take with food
- Doses need to be taken on a rigid schedule
- Do not double up missed doses unless on a daily or every other day schedule

Common Side Effects & Adverse Reactions

- Edema (swelling and puffiness of the face and eyes)

- Blurred vision
- Nausea
- Vomiting
- Increase appetite with weight gain
- Hypoglycemia
- Dizziness

Proper Storage

- Room temperature

Primaquine Phosphate

Therapeutic Category (Common Uses)

- Malaria

Normal Dosage Range

Children 0.3 mg/kg per day, once a day for 14 days.
Do not exceed 45 mg per week.

Adults 15 mg once a day for 14 days.

Usual Administration Schedule

- Once a day for 14 days

Medication Administration Considerations

- Take with food to decrease upset stomach
- Medicine has a very bitter taste

Common Side Effects & Adverse Reactions

- Abdominal pain
 - Nausea
 - Vomiting
 - Hemolytic anemia
- NOTIFY A PHYSICIAN IF ANY OF THE FOLLOWING OCCUR:
- Discoloration of urine
 - Shortness of breath
 - Skin weakness or discoloration

Proper Storage

- Room temperature

Primidone

Mysoline®

Therapeutic Category (Common Uses)

- Anti-convulsant
- Seizure disorders such as convulsions, epilepsy, fits

Normal Dosage Range

Children 10 - 25 mg/kg per day

Adults 250 - 2,000 mg per day

Usual Administration Schedule

- 3 - 4 times a day

Medication Administration Considerations

- Abrupt discontinuation of medication may precipitate seizures
- Do not “skip” doses

- If a dose is missed, a dose should be given as soon as possible. Do not “double up” or take a double dose on the next scheduled administration time.
- Give dose at same time each day
- Student may require extra drinking water and restroom privileges as this medication may cause excess thirst
- Administer tablets with a full glass of water

Common Side Effects & Adverse Reactions

- Drowsiness
- Irritability
- Fatigue
- Trouble concentrating
- Nausea
- Vomiting
- Dry mouth

Proper Storage

- Store at room temperature away from direct sunlight

Other Comments Or Instructions

- Available as:
 - Tablets: 50 mg, 250 mg
 - Oral suspension: 250 mg/5 ml
- May cause drowsiness or compromise motor skills. Use caution when driving, operating dangerous machinery, or engaged in potentially dangerous activities.

Propranolol

Inderal®

Therapeutic Category (Common Uses)

- Beta Blocker, Antiarrhythmia
- Hypertension
- Irregular heart beat
- Chest pain
- To prevent migraine headaches

Normal Dosage Range

Hypertension	Children	1 - 5 mg/kg per day
Hypertension	Adults	20 - 40 mg, 2 times a day, or 60 - 80 mg once a day (extended release). Maximum of 640 mg per day.
Irregular heart beat	Children	Up to 16 mg/kg per day in 4 divided doses
Irregular heart beat	Adults	10 - 30 mg, 3 - 4 times a day (given before meals and at bedtime)
Chest pain	Children	2 - 4 mg/kg per day given in 2 divided doses
Chest pain	Adults	80 - 320 mg, 2 - 4 times a day, or 80 mg once daily (extended release). Maximum of 320 mg per day.
Migraine Prevention	Children	2 - 4 mg/kg per day given in 2 divided doses
Migraine Prevention	Adults	80 mg/day, once a day (extended release) or 160 - 240 mg per day in divided doses

Usual Administration Schedule

- 2 - 4 times a day

Medication Administration Considerations

- Propranolol is usually given before meals and at bedtime
- If therapy is to be stopped, it should be slowly tapered and not stopped suddenly
- If extended-release capsules are used, they may be given once a day
- The extended-release capsules should be swallowed whole with a glass of water. Do not crush or chew.
- If the oral solution is used, the dose should be diluted with water, juice, carbonated drinks or mixed with applesauce or pudding just prior to administration

Common Side Effects & Adverse Reactions

- Slow heart rate
- Hypotension (lightheadedness, dizziness)
- Sleepiness
- Irritability, confusion
- Nausea
- Vomiting
- Diarrhea

Proper Storage

- Room temperature

Other Comments Or Instructions

- Asthma - Caution in asthmatics, as it may precipitate an asthma attack
- Diabetes - This medicine can mask signs of hypoglycemia (low blood sugar) and alter blood sugar levels. It may be necessary for your healthcare provider to alter your medicine.
- May cause drowsiness or compromise motor skills. Use caution when driving, operating dangerous machinery, or engaged in potentially dangerous activities.

Pyrantel Pamoate

Antiminth®

Therapeutic Category (Common Uses)

- Anthelmintic
- Pinworms
- Roundworms
- Whipworms
- Hookworms

Normal Dosage Range

Children	11 mg/kg per day
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Adults	11 mg/kg per day
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Usual Administration Schedule

- Administer as a single dose
- For roundworms and whipworms, a single dose is sufficient
- For pinworms repeat in 1 week
- For hookworms give for 3 days
- If pinworms are being treated, the entire family should be treated simultaneously

Medication Administration Considerations

- May mix with milk or fruit juice

Common Side Effects & Adverse Reactions

- Nausea
- Vomiting
- Abdominal cramps
- Diarrhea

Proper Storage

- Room temperature

Pyrimethamine + Sulfadoxine

Fandisar®

Therapeutic Category (Common Uses)

- Malaria

Normal Dosage Range

Children 4 - 10 years 12.5 mg once a week

Children > 10 years and Adults 25 mg once a week

Usual Administration Schedule

- Once a week

Medication Administration Considerations

- Take with meals to minimize vomiting

Common Side Effects & Adverse Reactions

- Anorexia
- Abdominal cramps
- Vomiting
- Anemia
- Depressed white blood cell function

NOTIFY A PHYSICIAN IF ANY OF THE FOLLOWING OCCURS:

- Rash
- Bleeding
- Bruising
- Fever
- Sore throat

Proper Storage

- Room temperature



Quinine Dihydrochloride

Therapeutic Category (Common Uses)

- Malaria

Normal Dosage Range

Children 25 - 30 mg/kg per day

Adults 325 - 650mg every 8 hours

Usual Administration Schedule

- 3 times a day

Medication Administration Considerations

- Do not crush sustained release products
- Do not take with antacids which contain aluminum

Common Side Effects & Adverse Reactions

- Headache
- Nausea
- Vomiting
- Diarrhea
- Blurred vision
- Tinnitus

NOTIFY A PHYSICIAN IF ANY OF THE FOLLOWING OCCUR:

- Fever
- Rash
- Bleeding
- Bruising
- Disorientation
- Irregular heart beat
- Night blindness

Proper Storage

- Room temperature

Ranitidine

Zantac®

Therapeutic Category (Common Uses)

- H2 antagonist (blocks stomach acid secretion)
- Ulcers and other stomach disorders

Normal Dosage Range

Children 1 - 4 mg/kg per day. Maximum of 150 mg per day.

Adults 150 mg, 2 times a day. Maximum of 600 mg per day.

Usual Administration Schedule

- 2 times a day

Medication Administration Considerations

- Antacids may be taken with this medication
- Ranitidine may take several days to reach a noticeable effect

Common Side Effects & Adverse Reactions

- Drowsiness
- Impaired judgement
- Diminished coordination
- Dizziness
- Headache
- Diarrhea
- Constipation
- Nausea
- Vomiting

Proper Storage

- Room temperature

Other Comments Or Instructions

- May cause drowsiness or compromise motor skills. Use caution when driving, operating dangerous machinery, or engaged in potentially dangerous activities.



Repaglinide

Prandin®

Therapeutic Category (Common Uses)

- Oral hypoglycemic
- Diabetes mellitus

Normal Dosage Range

Children Not determined by the FDA

Adults 0.4 - 4 mg before meals 2, 3, or 4 times a day. Maximum of 16 mg per day.

Usual Administration Schedule

- 2, 3, or 4 times a day depending on the eating habits of the student

Medication Administration Considerations

- Take before a meal

Common Side Effects & Adverse Reactions

- Hypoglycemia (low blood sugar)
- Weight gain

Proper Storage

- Room temperature

Other Comments Or Instructions

- Symptoms of low blood sugar include: tingling of lips and tongue, nausea, yawning, confusion, agitation, increased heart rate, sweating, convulsions, stupor and coma
- Student should be familiar with the symptoms of hyperglycemia (high blood sugar), and hypoglycemia (low blood sugar)
- Student should have a diabetes health plan which includes medication, blood glucose monitoring, diet and exercise
- Student should not skip meals, and a quick source of sugar should be readily available in the case of signs of hypoglycemia
- Student should consider wearing a medical alert bracelet

Risperidone

Risperdal®

Therapeutic Category (Common Uses)

- Tranquilizer
- To improve concentration and self-control in patients with psychotic behavior

Normal Dosage Range

Children Not FDA approved, 0.5 - 1.5mg per day

Adults 1 - 3 mg, 2 times a day. Maximum of 16 mg per day.

Usual Administration Schedule

- 1 - 2 times a day

Drug Administration Considerations

- Avoid administration with any preparation that may contain alcohol such as cough and cold preparations
- Do not “skip” doses
- If a dose is missed, a dose should be given as soon as possible. Do not take a double dose the next scheduled time.
- Do not administer with cola or tea

Ritonavir

Common Side Effects & Adverse Reactions:

- Sun sensitivity
- Nausea
- Constipation
- Dizziness
- Rapid heart rate
- Hypotension (Low blood pressure)
- Increased or decreased blood sugar
- Extrapyramidal effects (increased muscle tone, involuntary movements, twitching)

Proper Storage

- Room temperature away from direct sunlight
- Controlled substance security

Other Comments Or Instructions:

- Available as 1 mg/ml solution, and as 0.5, 1, 2, 3, and 4 mg tablets
- If dizziness, lightheadedness or fainting occurs, get up slowly and avoid sudden changes in posture
- Avoid prolonged exposure to the sun or other forms of ultraviolet (UV) light. Sunscreen should be utilized for outdoor activities, recess, field-trips, etc.
- May cause drowsiness or compromise motor skills. Use caution when driving, operating dangerous machinery, or engaged in potentially dangerous activities.

Norvir®

Therapeutic Category (Common Uses)

- Antiviral (HIV)

Normal Dosage Range

Children	400 mg/M ² every 12 hours, dose may be started lower to minimize side effects
Adults	600 mg every 12 hours, dose may be decreased at first to minimize side effects

Usual Administration Schedule

- Every 12 hours

Medication Administration Considerations

- May be taken with meals

Common Side Effects & Adverse Reactions

- Weakness
- Loss of appetite
- Nausea
- Vomiting
- Diarrhea
- Altered taste
- Numbness or tingling of mouth, hands, or feet
- Blurred vision
- Dizziness
- Headache
- Loss of coordination
- Muscle or joint pain

Proper Storage

- Refrigerate both capsules and solution

Other Comments Or Instructions

- Student may be receiving other antiviral medications that may be given at the same time

Rofecoxib

Vioxx®

Therapeutic Category (Common Uses)

- Non-Steroidal Anti-Inflammatory Drug (NSAID), COX-2 receptor selective
- Pain
- Osteoarthritis

Normal Dosage Range

Children Not FDA approved.

Adults 12.5 - 50 mg once a day

Usual Administration Schedule

- Once a day

Medication Administration Considerations

- Take with food, milk, or plenty of fluid to prevent upset stomach

Common Side Effects & Adverse Reactions

- Gastric bleeding (black stools)
- Stomach pain
- Edema (swelling)
- High blood pressure
- Headache
- Dizziness
- Weakness
- Diarrhea
- Nausea
- Flu-like symptoms

Proper Storage

- Room temperature

Rosiglitazone

Avandia®

Therapeutic Category (Common Uses)

- Oral hypoglycemic (thiazolidinediones)
- Diabetes mellitus

Normal Dosage Range

Children Not determined by the FDA

Adults 4 - 8 mg per day

Usual Administration Schedule

- Once a day
- 2 times a day, in the morning and evening

Medication Administration Considerations

- May take with or without meals

Common Side Effects & Adverse Reactions

- Hypoglycemia (low blood sugar)

- Weight gain
- Edema

Proper Storage

- Room temperature

Other Comments Or Instructions

- Symptoms of low blood sugar include: tingling of lips and tongue, nausea, yawning, confusion, agitation, increased heart rate, sweating, convulsions, stupor and coma
- Student should be familiar with the symptoms of hyperglycemia (high blood sugar), and hypoglycemia (low blood sugar)
- Student should have a diabetes health plan which includes medication, blood glucose monitoring, diet and exercise
- Student should not skip meals, and a quick source of sugar should be readily available in the case of signs of hypoglycemia
- Student should consider wearing a medical alert bracelet

Salmeterol

Serevent®

Therapeutic Category (Common Uses)

- Bronchodilator (long acting Beta-2 adrenergic agonist)
- Opens bronchial airways
- Asthma and other breathing problems

Normal Dosage Range

Children	Inhalers	1 – 2 puffs every 12 hours
Children	Oral Blister Tab	50 mcg blister every 12 hours

Usual Administration Schedule

- Every 12 hours

Medication Administration Considerations

FOR INHALATION

- Shake well before using
- Clean the inhaler before and after each use
- Completely exhale, then time the dose to get full effect when you inhale. Wait 10 seconds, and slowly exhale.
- Wait 1 minute before inhaling a second dose
- Rinse mouth with water, spit out the water, do not swallow

Common Side Effects & Adverse Reactions

- Difficulty breathing, wheezing
- Dizziness
- Fast heartbeat, chest pain
- Skin rash and itching (hives)
- Swelling of face, lips, or eyelids
- Continued coughing or wheezing
- Diarrhea
- Headache
- Indigestion or stomach ache
- Diarrhea
- Nausea or vomiting
- Runny or stuffy nose
- Muscle cramps and pain
- Fatigue

Proper Storage

- Room Temperature

Other Comments Or Instructions

- Salmeterol can be used 60 minutes prior to vigorous exercise to prevent an asthma attack
- Many students use another, shorter acting inhaler with Salmeterol, such as Albuterol

Saquinavir

Fortovase®

Therapeutic Category (Common Uses)

- Antiviral (HIV)

Normal Dosage Range

Children 16 + years Soft gelatin capsules: 1,200 mg every 8 hours

Children 16 + years Hard gelatin capsules: 600 mg every 8 hours

Adults Same as Child dose

Usual Administration Schedule

- Every 8 hours

Medication Administration Considerations

- Take with food or within 2 hours after a meal

Common Side Effects & Adverse Reactions

- Nausea
- Vomiting
- Stomach upset
- Muscle and joint pain
- Cough
- Diarrhea

Proper Storage

- Refrigerate

Other Comments Or Instructions

- Student may be receiving other antiviral medications that may be given at the same time

Selective Serotonin re-uptake Inhibitors (SSRI)

GENERIC NAME	BRAND NAMES
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Fluoxetine	Prozac®
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Paroxetine	Paxil®
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Sertraline	Zoloft®
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Venlafaxine	Effexor®
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Therapeutic Category (Common Uses)

- Obsessive-Compulsive Disorder (OCD)
- Depression
- Bulimia Nervosa
- Panic attacks

Normal Dosage Range

Unless specifically stated, or prescribed by the physician, these doses are for ADULTS only.

MEDICATION	USE	DOSE
Fluoxetine	Depression	20 mg per day
Fluoxetine	Obsessive Compulsive Disorder	20 - 60 mg per day
Fluoxetine	Bulimia Nervosa	60 mg per day
Paroxetine	Depression	20 - 50 mg per day
Paroxetine	Obsessive Compulsive Disorder	40 mg per day
Paroxetine	Panic Disorder	40 mg per day
Sertraline	Depression	50 - 100 mg per day
Sertraline	Obsessive Compulsive Disorder	50 mg per day (13 years - adult)
Sertraline	Obsessive Compulsive Disorder	25 mg per day (children 6 - 12 years)
Sertraline	Panic Disorder	50 - 200 mg per day

Usual Administration Schedule

- Once a day in the morning
- 2 times a day, in the morning and noon

Medication Administration Considerations

- Administered orally without regard to meals
- Usually taken in the morning to minimize sleeplessness

Common Side Effects & Adverse Reactions

- Dizziness, drowsiness
- Nausea
- Diarrhea
- Anorexia
- Anxiety, nervousness
- Insomnia
- Headache

Proper Storage

- Room Temperature

Other Comments Or Instructions

- May cause drowsiness or compromise motor skills. Use caution when driving, operating dangerous machinery, or engaged in potentially dangerous activities.
- Photosensitization may occur; therefore, caution students to take protective measures (eg, sunscreens, protective clothing) against exposure to ultraviolet light or sunlight until tolerance is determined.
- Close supervision of any depressed student is recommended because of the increased risk of suicide

Sibutramine

Meridia®

Therapeutic Category (Common Uses)

- Anorexiant (hunger suppressant)
- Obesity

Normal Dosage Range

Children Not recommended

Adults 10 mg once a day for 4 weeks

Usual Administration Schedule

- Once a day

Medication Administration Considerations

- After 4 weeks, the dose may be increased to 15 mg once a day for another 4 weeks

Common Side Effects & Adverse Reactions

- Headache
- Insomnia
- Anorexia
- Xerostomia
- Constipation
- Irritated sinus
- Irregular heart beat
- Low blood pressure
- Dizziness
- Depression
- Rash
- Dysmenorrhea
- Nausea
- Upset stomach
- Weakness
- Cough
- Flu-like symptoms
- Increased thirst

Proper Storage

- Room temperature

Other Comments Or Instructions

- May cause drowsiness or compromise motor skills. Use caution when driving, operating dangerous machinery, or engaged in potentially dangerous activities.

Sodium Bicarbonate

Therapeutic Category (Common Uses)

- Systemic alkalinizer for kidney disease

Normal Dosage Range

Children and Adults 325 mg - 2 gm per dose

Usual Administration Schedule

- 1 - 4 times a day

Medication Administration Considerations

- Take with a full glass of fluid or with meals

Common Side Effects & Adverse Reactions

- Upset stomach or diarrhea if not taken with plenty of fluid or food

Proper Storage

- Room temperature

Stavudine

Zerit®

Therapeutic Category (Common Uses)

- Antiviral (HIV)

Normal Dosage Range

Children < 30 kg 1 mg/kg every 12 hours

Adults < 60 kg 30 mg every 12 hours

Adults > 60 kg 40 mg every 12 hours

Usual Administration Schedule

- Every 12 hours

Medication Administration Considerations

- May be taken on a full or empty stomach

Common Side Effects & Adverse Reactions

- Nerve disorders, including numbness, tingling, burning or pain of the hands and feet

Proper Storage

- Room temperature

Other Comments Or Instructions

- Student may be receiving other antiviral medication that may be given at the same time

Sulfasalazine

Azulfidine®

Therapeutic Category (Common Uses)

- Antibiotic (Sulfa class)
- Inflammatory bowel disease

Normal Dosage Range

Children	Initial Dose	40 - 60 mg/kg per day
Children	Maintenance Dose	30 mg/kg per day
Children	Maximum Dose	2 gram per day
Adults		3 - 4 grams per day

Usual Administration Schedule

- 3 - 6 times per day

Medication Administration Considerations

- After meals with plenty of water to prevent upset stomach and increase absorption
- Cannot be crushed or chewed

Common Side Effects & Adverse Reactions

- Orange-yellow discoloration of urine/skin, (can discolor contact lenses)
- Skin sensitivity to sunlight leading to splotching or easily burning
- Appetite loss
- Nausea
- Vomiting
- Headache
- Stomach upset

Proper Storage

- Room Temperature

Sulfamethoxazole/Trimethoprim, Cotrimoxazole

Bactrim®, Septra®, TMP-SMX®, Sulfatrim®

Therapeutic Category (Common Uses)

- Antibiotic (Sulfa class)
- Urinary tract infection

Normal Dosage Range

Dose is Based on Trimethoprim component.

Children	8 - 10 mg/kg per day
Adults	160 mg per dose, every 12 hours

Usual Administration Schedule

- Every 6 - 12 hours

Medication Administration Considerations

- Take with full glass of water

Common Side Effects & Adverse Reactions

- Stomach upset
- Diarrhea
- Nausea

- Vomiting
- Allergic reaction, including difficulty in breathing, skin rash, itch

Proper Storage

- Room temperature

Other Comments Or Instructions

- Available as:
 - Tablets: 80 mg TMP/400 mg Sulfamethoxazole
 - DS Tablets: 160 mg TMP/800 mg Sulfamethoxazole
 - Suspension: 40 mg TMP/200 mg Sulfamethoxazole per 5 ml

Sulindac

Clinoril®

Therapeutic Category (Common Uses)

- Non-Steroidal Anti-Inflammatory Drug (NSAID)
- Muscle pain
- Arthritis

Normal Dosage Range

Children	Not established
Adults	150 - 200 mg, 2 times a day, or 300 - 400 mg once a day

Usual Administration Schedule

- 2 times a day

Medication Administration Considerations

- Take with food or milk
- May be crushed, unless given as a once a day dose
- Do not take with aspirin as it can prolong bleeding times

Common Side Effects & Adverse Reactions

- Dizziness
- Rash
- Abdominal craps
- Heartburn
- Indigestion
- Nausea
- Headache
- Nervousness
- Itching
- Fluid retention
- Vomiting
- Tinnitus
- Prolonged bleeding, or bruising

Proper Storage

- Room temperature

Imitrex®

Therapeutic Category (Common Uses)

- Migraine Headache
- Cluster headache (injection only)

Normal Dosage Range

Oral	Take one 25 mg tablet as soon as possible after migraine begins. The maximum single dose is 100 mg. A second dose may be taken if symptoms return but no sooner than 2 hours following the first dose. Do not take more than 300 mg in any 24-hour period.
Injection	The usual dose is a single 6 mg injection given just below the skin (subcutaneously). It should be given as soon as the symptoms of migraine appear, but it may be given at any time during an attack. A second injection may be given if symptoms come back. Do not give more than 2 injections in any 24 hour period. Allow at least 1 hour between each dose. Pain or redness at injection site usually lasts less than 1 hour.
Nasal Spray	Administer single doses of 5, 10 or 20 mg of nasal spray into 1 nostril. A 10 mg dose may be achieved by the administration of a single 5 mg dose in each nostril. To use, bend the head slightly forward and spray into nostril. Do not tilt head back. Hold nostril closed for a few minutes to allow medication to be absorbed. If the headache returns, the dose may be repeated once after 2 hours. Do not exceed a total daily dose of 40 mg.

Usual Administration Schedule

- Sumatriptin should be taken/administered as soon as possible after migraine symptoms appear

Medication Administration Considerations

- If headache is NOT gone within 45 - 60 minutes, one dose may be repeated

Common Side Effects & Adverse Reactions

- Tightness or pressure in chest
- Fast or pounding heartbeat
- Weakness
- Dizziness
- Drowsiness
- Fatigue
- Flushing
- Sweating
- Cold sensation, chills
- Tight feeling in head
- Thirst
- Irritated eyes
- Anxiety
- Fainting
- Throat, mouth, or tongue discomfort
- Neck pain/stiffness, muscle pain/cramps, general body discomfort
- Tingling, burning or prickling of skin
- If Injection: Pain/redness at injection site (usually lasts only 1 hour)
- If Nasal Spray: nasal irritation, difficulty swallowing

Proper Storage

- Room Temperature

Other Comments Or Instructions

- May cause sensitivity to light. Avoid prolonged exposure to the sun. Use sunscreen and wear protective clothing until tolerance is determined.
- Contact a physician if student experiences pain or tightness in chest or throat, wheezing, heart throbbing, swelling of eyelids, face or lips, skin rash or lumps or hives
- May cause drowsiness or compromise motor skills. Use caution when driving, operating dangerous machinery, or engaged in potentially dangerous activities.

Terbutaline

Brethine[®], Bricanyl[®] (Tablets), Brethaire[®] (Inhaler)

Therapeutic Category (Common Uses)

- Bronchodilator
- Asthma
- Breathing difficulty such as reactive airway disease, and cystic fibrosis

Normal Dosage Range

AGE	DOSAGE	
	FORM	DOSE
	Aerosol	1 - 2 inhalations every 4 - 6 hours
< 12 years	Tablet	0.05 mg/kg, 3 times a day (maximum = 5 mg/day)
12 - 15 years	Tablet	2.5 mg, 3 times a day (maximum = 7.5 mg/day)
>15 years - adults	Tablet	25 or 5 mg, 3 times a day (maximum = 15 mg/day)

Usual Administration Schedule

- The inhaler is used as a rescue medication, it should be immediately available (i.e. carry with the child) when needed. Usually one inhalation followed in a minute with a second puff.
- The oral form is used to prevent attacks and is taken on a regular scheduled basis, 3 times a day

Medication Administration Considerations

INHALER:

- Give 15 minutes before exercise if used to prevent exercise induced broncho-constriction
- Inhaler effectiveness is enhanced if the proper technique is utilized and if a spacer device is used
- Wait at least one full minute between inhalations
- Consider having student rinse mouth with water after inhalations, and swallow

ORAL TABLET:

- Best if taken on an empty stomach, 1 hour prior to meals. However, if albuterol causes upset stomach, it may be taken with food or milk.
- Tablets can be crushed

Common Side Effects & Adverse Reactions

- Failure to respond with normal breathing (seek medical attention, especially if a previously effective dosage fails to provide relief)
- Dizziness
- Chest pain

- Rapid heart rate
- Trembling
- High blood pressure, flushing (redness)
- Side effects may be exaggerated if the student consumes caffeine, such as from coffee, tea, colas, or chocolate

Proper Storage

- Room temperature

Tetracycline

Tetracyn®, Achromycin V®

Therapeutic Category (Common Uses)

- Antibiotic
- H. Pylori ulcer regimen
- Resistant malaria
- Respiratory infection
- Sinus infection
- Otitis media (ear)
- Skin and wound infection

Normal Dosage Range

Children > 8 years	25 - 50 mg/kg per day
Adults	250 - 500 mg, 4 times a day
Ophthalmic Drops	1 - 2 drops, 2 - 4 times a day

Usual Administration Schedule

- 4 times a day for 7 - 15 days

Medication Administration Considerations

- Take on an empty stomach, 1 hour before, or 2 hours after meals
- Do not administer with antacids, iron containing preparations, or dairy products
- Give with a full glass of liquid

Common Side Effects & Adverse Reactions

- Photosensitivity, avoid or protect from exposure to direct sunlight
- May cause yellowing of the skin, or dark urine, or pale stools
- Prolonged use can cause discoloration of the teeth in young children
- Nausea
- Diarrhea

Proper Storage

- Room temperature

Theophylline

Theodur[®], Theophil[®], Elixophyllin[®], Bronkodyl[®], Somophyllin[®], Slo-Phyllin[®], Theolair[®], Quibron[®], and many others

Therapeutic Category (Common Uses)

- Bronchodilator
- Asthma and other respiratory problems
- Bronchospasm associated with chronic bronchitis

Normal Dosage Range

Theophylline doses vary widely, because of the student, the specific type of theophylline, and the side effects the student will be able to tolerate. The following are considered to be at the high end of the Normal Dosage Range.

1 - 9 years		24 mg/kg per day
9 - 12 years		20 mg/kg per day
12 - 16 years	Non smoker	16 mg/kg per day
12 - 16 years	Smokers	18 mg/kg per day
> 16 years	Non smoker	13 mg/kg per day, up to 900 mg per day
> 16 years	Smokers	16 mg/kg per day, up to 1,100 mg per day

Usual Administration Schedule

- Products are available in several dosage forms and strengths.
- Sustained release products are taken every 8 - 12 hours
- Regular release products are taken every 4 - 6 hours.

Medication Administration Considerations

- The following names indicate “prolonged acting” products, and should not be dissolved or crushed: Long acting (LA), sustained release (SR, CRT, Slo-, Dura-,), timed release (TR), 24 hour release (24). See page 104 for more information on “crushing.” The one exception is the “long acting Sprinkle” which is a 12 hour product in a capsule; the capsule can be opened and the medication “beads” inside can be sprinkled (but not crushed) onto a soft food.
- Theophylline has a very bitter taste. If tablets are crushed, or liquid is used the student should be offered something strongly flavored to offset the taste. Tomato juice and grapefruit juice work best if they are available, and acceptable to the student.
- All products should be taken with a full glass of water. They may also be taken with food.
- Higher doses are required if the student is a smoker
- Children receive a higher dose per pound of body weight than adults do
- Do not “skip” doses
- If a dose is missed, a dose should be given as soon as possible. Do not take an extra dose at the next scheduled time.
- Avoid large amounts of caffeine-containing food or beverages, such as tea, coffee, cocoa, Mountain Dew and cola drinks, or large amounts of chocolate because these products may increase side effects
- Take at regular intervals around the clock

Common Side Effects & Adverse Reactions

- Nausea
- Vomiting
- Diarrhea
- Upset stomach, stomach pain. (Notify parent/guardian or physician if black tar-like stools appear because it could mean bleeding in the stomach or intestines.)

- Headache
- Insomnia (lack of sleep)
- Nervousness, dizziness, trembling
- Rapid heart rate (fast pulse)
- Theophylline is a xanthine derivative, which is chemically related to caffeine, and combination with too much caffeine can cause exaggerated side effects

Proper Storage

- Room temperature away from direct sunlight

Thiabendazole

Mintezol®

Therapeutic Category (Common Uses)

- Anthelmintic
- Strongyloidiasis
- Dracunculiasis
- Trichinosis
- Mixed helminthic infections

Normal Dosage Range

Children	50 mg/kg per day divided into 2 doses. Maximum dose is 3 grams/day.
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Adults	50 mg/kg per day divided into 2 doses. If greater than 70 kg give 1.5 grams 2 times a day. Maximum dose is 3 grams/day.
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Usual Administration Schedule

- 2 times a day for 2 - 7 days depending on the type of infection

Medication Administration Considerations

- Orange flavored tablets are chewable
- Oral suspension is 500 mg/5 ml
- Take after meals
- Drinking fruit juice aids in the effectiveness of this medication by removing the mucous to which the intestinal tapeworms attach themselves

Common Side Effects & Adverse Reactions

- Seizures
- Dizziness
- Anorexia
- Nausea
- Dry throat, mouth, nose
- Tinnitus
- Blurred or yellow vision
- Hallucinations
- Drowsiness, Headache
- Diarrhea
- Vomiting
- Numbness of the skin
- Rash
- Chills

Proper Storage

- Room temperature

Other Comments Or Instructions

- May cause drowsiness or compromise motor skills. Use caution when driving, operating dangerous machinery, or engaged in potentially dangerous activities.

Thioguanine (6-TG)

Lanvis® (6-TG)

Therapeutic Category (Common Uses)

- Cancer chemotherapy

Normal Dosage Range

< 3 years	3.3 mg/kg per day
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> 3 years - adults	2 - 3 mg/kg per day
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Usual Administration Schedule

- Every 12 hours

Medication Administration Considerations

- Take on empty stomach with full glass of water
- Do not double up missed doses
- Keep hydrated, encourage student to drink fluids

Common Side Effects & Adverse Reactions Nausea

- Vomiting
- Diarrhea
- Loss of appetite
- Bruising, bleeding
- Rash
- More susceptible to infections

Proper Storage

- Room temperature

Tolazamide

Tolinase®

Therapeutic Category (Common Uses)

- Oral hypoglycemic (first generation sulfonylurea)
- Diabetes mellitus

Normal Dosage Range

Children	Not determined by the FDA
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Adults	100 - 1,000 mg per day
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Usual Administration Schedule

- 1 - 2 times a day

Medication Administration Considerations

- Take with meals

Common Side Effects & Adverse Reactions

- Hypoglycemia (low blood sugar)
- Persistent sore throat
- Weakness, malaise
- Fever
- Unusual bleeding
- Bruising
- Headaches
- Dizziness
- Anorexia
- Nausea

- Vomiting
- Diarrhea
- Constipation
- Upset stomach (heartburn)
- Rash
- Photosensitivity

Proper Storage

- Room temperature

Other Comments Or Instructions

- Symptoms of low blood sugar include: tingling of lips and tongue, nausea, yawning, confusion, agitation, increased heart rate, sweating, convulsions, stupor and coma
- Student should be familiar with the symptoms of hyperglycemia (high blood sugar), and hypoglycemia (low blood sugar)
- Student should have a diabetes health plan which includes medication, blood glucose monitoring, diet and exercise
- Student should not skip meals, and a quick source of sugar should be readily available in the case of signs of hypoglycemia
- Student should consider wearing a medical alert bracelet

Tolbutamide

Orinase®

Therapeutic Category (Common Uses)

- Oral hypoglycemic (first generation sulfonylurea)
- Diabetes mellitus

Normal Dosage Range

Children	Not determined by the FDA
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Adults	250 - 2,000 mg per day
--------	------------------------

Usual Administration Schedule

- 1 - 3 times a day

Medication Administration Considerations

- Take before meals

Common Side Effects & Adverse Reactions

- Hypoglycemia (low blood sugar)
- Persistent sore throat
- Weakness, malaise
- Fever
- Unusual bleeding
- Bruising
- Headaches
- Dizziness
- Anorexia
- Nausea
- Vomiting
- Diarrhea
- Constipation
- Upset stomach (heartburn)
- Rash
- Photosensitivity

Proper Storage

- Room temperature

Other Comments Or Instructions

- Symptoms of low blood sugar include: tingling of lips and tongue, nausea, yawning, confusion, agitation, increased heart rate, sweating, convulsions, stupor and coma
- Student should be familiar with the symptoms of hyperglycemia (high blood sugar), and hypoglycemia (low blood sugar)
- Student should have a diabetes health plan which includes medication, blood glucose monitoring, diet and exercise
- Student should not skip meals, and a quick source of sugar should be readily available in the case of signs of hypoglycemia
- Student should consider wearing a medical alert bracelet

Tricyclic Antidepressants

GENERIC NAME	BRAND NAMES
Amitriptyline	Elavil®
Desipramine	Norpramine®
Imipramine	Tofranil®
Nortriptyline	Pamelor®

Therapeutic Category (Common Uses)

- Tricyclic antidepressants are used to treat different forms of depression by changing chemicals in the brain that help counteract the depression
- Some medication of this class are used to treat attention deficit disorder
- Some are used to treat chronic pain.
- Some have been useful in the treatment of eating disorders
- Enuresis (bed-wetting) in children at least 6 years of age.

Normal Dosage Range

MEDICATION	AGE	DOSE
Amitriptyline	Children 12 + years	10 mg, 3 times a day, and 20 mg at bedtime
Amitriptyline	Adults	75 - 100 mg per day in divided doses
Desipramine	Children 12 + years	25 to 100 mg per day. Doses > 150 mg/day are not recommended.
Desipramine	Adults	100 to 200 mg per day
Imipramine	Children	1.5 mg/kg per day in 3 divided doses. 25 mg/day 1 hr prior to bedtime in children at least 6 years old with enuresis.
Imipramine	Adolescents	30 to 40 mg per day
Imipramine	Adults	Initially, 75 mg per day, increased to 150 mg per day. Do not exceed 200 mg per day.
Nortriptyline	Adolescents	30 to 50 mg per day in divided doses
Nortriptyline	Adults	25 mg, 3 - 4 times a day

Usual Administration Schedule

- Once a day at bedtime
- 3 - 4 times a day

Trimethadione

Medication Administration Considerations

- Doses are adjusted until the optimum dose is found
- Giving the entire daily dose at bedtime may reduce daytime sedation
- Take with or without food
- Desired effect may not occur for 3 - 4 weeks after starting the medication

Common Side Effects & Adverse Reactions

- Dry mouth
- Constipation
- Sedation, drowsiness
- Nausea
- Vomiting
- Fatigue
- Increased sensitivity to sunlight
- Nervousness, anxiety

Proper Storage

- Room temperature

Other Comments Or Instructions

- Avoid prolonged exposure to sunlight. It is recommended to use a sunscreen with a Sun Protectant Factor (SPF) of at least 30.
- May cause drowsiness or compromise motor skills. Use caution when driving, operating dangerous machinery, or engaged in potentially dangerous activities.

Tridione®

Therapeutic Category (Common Uses)

- Seizure disorders (eg. convulsions, epilepsy, fits)

Normal Dosage Range

Children 300 - 900 mg per day

Adults 900 - 2,400 mg per day

Usual Administration Schedule

- 3 - 4 times a day

Medication Administration Considerations

- Abrupt discontinuation of medication may precipitate seizures
- Do not “skip” doses
- If a dose is missed, a dose should be given as soon as possible. Do not take a double dose on the next scheduled administration time.
- Give dose at same time each day
- Administer capsules with a full glass of water

Common Side Effects & Adverse Reactions

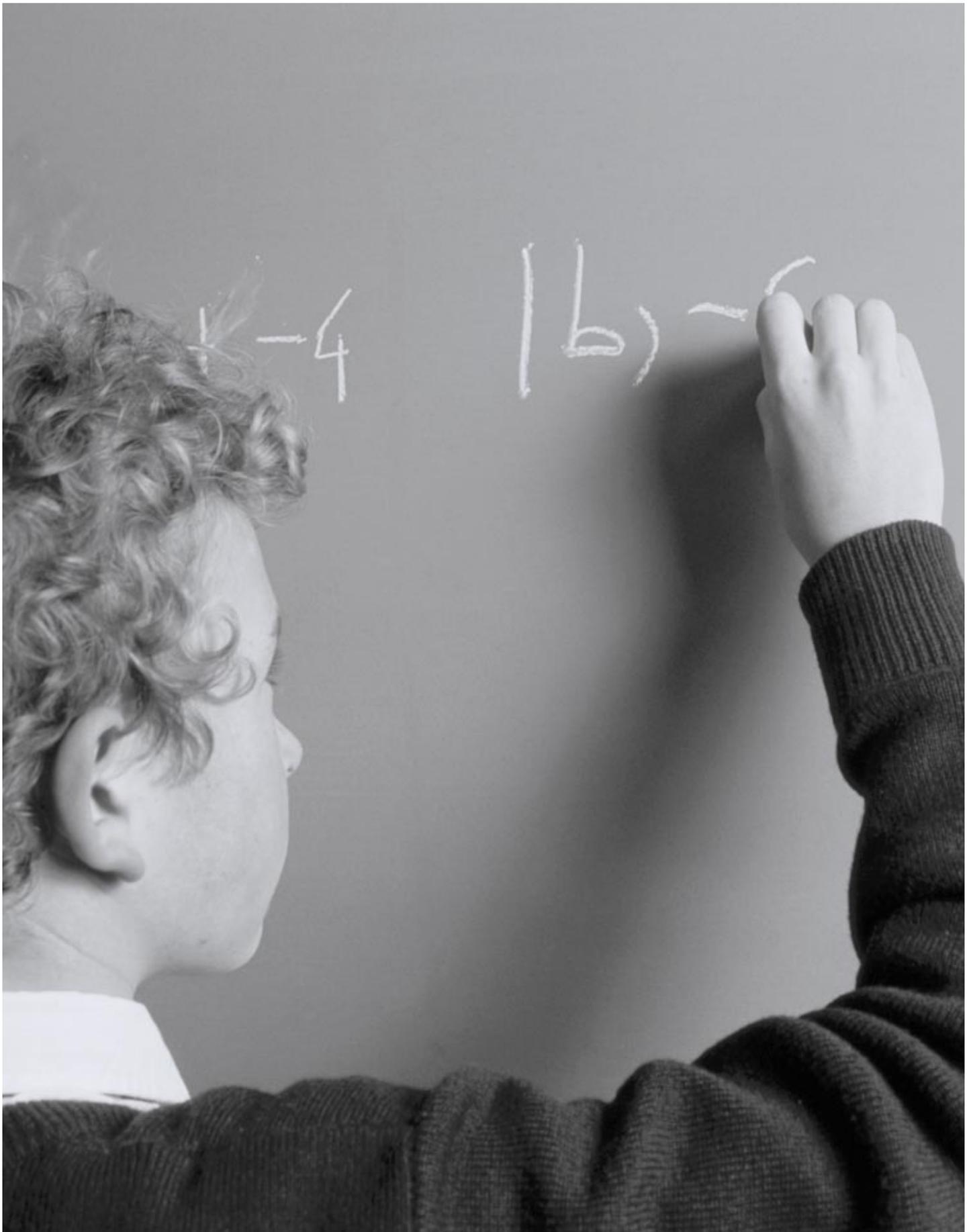
- Drowsiness • Blurred vision
- Nausea • Vomiting
- Diarrhea

Proper Storage

- Store at room temperature away from direct sunlight

Other Comments Or Instructions

- Available as 150 mg tablets, 300 mg capsules and 200 mg/5 ml oral solution
- May cause drowsiness or compromise motor skills. Use caution when driving, operating dangerous machinery, or engaged in potentially dangerous activities.



Valproic Acid

Depakene,[®] Depakote[®]

Therapeutic Category (Common Uses)

- Seizure disorders (eg. convulsions, epilepsy, fits)
- Migraine headaches

Normal Dosage Range

Children 15 - 60 mg/kg per day

Adults 500 - 5,000 mg per day

Usual Administration Schedule

- 2 - 4 times a day

Medication Administration Considerations

- Give dose at same time each day
- Do not “skip” doses
- If a dose is missed, a dose should be given as soon as possible, but do not take a double dose on the next scheduled administration time.
- Administer tablets and capsules with a full glass of water
- May cause upset stomach – take medication with food
- Swallow tablets or capsules whole, do not crush or chew
- Only “sprinkle” capsules to be poured over food

Common Side Effects & Adverse Reactions

- Nausea
- Vomiting
- Diarrhea
- Weight gain or loss
- Headache

Proper Storage

- Room temperature away from direct sunlight

Other Comments Or Instructions

- Available as 250 mg capsules, 250 mg/5 ml syrup, 125 mg sprinkle capsules. Also 125, 250 and 500 mg tablets
- May cause drowsiness or compromise motor skills. Use caution when driving, operating dangerous machinery, or engaged in potentially dangerous activities.

Vancomycin

Vancocin,[®] Vancoled,[®] Lophocin[®]

Therapeutic Category (Common Uses)

- Antibiotic
- Staphylococcal infections resistant to other antibiotics

Normal Dosage Range

Children 40 mg/kg per day

Adults 500 - 1,000 mg per dose

Usual Administration Schedule

- 4 times a day for children
- 2 times a day for adults

Verapamil

Medication Administration Considerations

- Available as an oral suspension. Shake well.

Common Side Effects & Adverse Reactions

- Fever
- Rash, flushing of head and neck
- Nausea
- Vomiting
- Chills

Proper Storage

- Room temperature for capsules
- Refrigerate the oral suspension

Calan® Isoptin® Covera®, Verelan®

Therapeutic Category (Common Uses)

- Calcium Channel Blocker, for cardiac arrhythmias
- Angina (severe pain & feeling of pressure in the heart)
- Hypertension
- Migraine & cluster headaches

Normal Dosage Range

Angina	Adults	Tablets: 80 mg every 6 - 8 hours. Do not exceed 480 mg per day.
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Angina	Adults	Sustained release: 120 - 480 mg per day, at bedtime.
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Hypertension	Adults	120 - 240 mg per day, in the morning.
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Usual Administration Schedule

- 1 - 2 times a day

Medication Administration Considerations

- Take with food
- Do not crush or chew this medicine
- Verelan brand capsules may be opened and sprinkled on applesauce just prior to administration

Common Side Effects & Adverse Reactions

- Irregular heartbeat, increased frequency/severity of angina
- Shortness of breath
- Swelling of hands and feet
- Dizziness
- Constipation
- Nausea
- Symptoms of a medicine allergy (eg, itching, rash, hives, difficult breathing)
- Unusual bleeding or bruising; gum enlargement

Proper Storage

- Room temperature

Other Comments Or Instructions

- Do not suddenly stop taking this medicine as this may cause serious chest pains. This can be minimized if the medicine gradually decreased in dose.

Coumadin®

Therapeutic Category (Common Uses)

- Anticoagulant
- Interferes with the bodies clotting mechanism to prevent blood clots. Sometimes referred to as a “blood thinner”.

Normal Dosage Range

- Warfarin is initiated under the strict observation of a physician, with daily dose adjustments, monitored by lab tests until the desired effect is achieved.
- A typical dose is 2.5 – 10 mg once a day.

Usual Administration Schedule

- Once a day

Medication Administration Considerations

- Do not give aspirin or NSAIDs, because they will significantly increase the effect of warfarin (See page 219).
- Do not consume large amounts of green leafy vegetables and salads. These foods are high in Vitamin K, which counteracts the effect of warfarin.

Common Side Effects & Adverse Reactions

Warfarin prevents clotting, therefore the student is susceptible to bleeding problems. This is most commonly seen as:

- Bruising
- Bleeding gums
- Blood in urine or feces

Other side effects include:

- Nausea
- Diarrhea
- Skin rash and itching (hives)
- Sore mouth

Proper Storage

- Room temperature

Other Comments Or Instructions

- The antidote to warfarin is Vitamin K, therefore foods high in Vitamin K will interfere with warfarin effectiveness and should be avoided. That includes green leafy vegetables such as lettuce and spinach.
- Several medication compete with warfarin for it’s binding site in the body. When the following medication are given, the effect of warfarin can increase dangerously.
 - Aspirin and all other “salicylates”
 - Non-Steroidal Anti-Inflammatory Drugs (NSAIDs) such as Ibuprofen (Advil®/Motrin®)
 - Alcoholic beverages



Accolate®

Therapeutic Category (Common Uses)

- Bronchodilator (leukotriene inhibitor)
- Asthma and other pulmonary disorders
- Bronchial inflammation

Normal Dosage Range

7 - 11 years 10 mg, 2 times a day

> 12 years 20 mg, 2 times a day

Usual Administration Schedule

- 2 times a day

Medication Administration Considerations

- Take on an empty stomach, 1/2 hour before, or 2 hours after a meal
- It must be used on a regular basis
- It does not provide instant relief and cannot be used to treat a sudden asthma attack

Common Side Effects & Adverse Reactions

- May cause liver problems. Look for pain in the right upper part of your abdomen, yellowing of skin or eyes, itching, or if student is unusually tired.
- Flu like symptoms may also indicate liver damage, but if it's really the flu, the symptoms will go away in a few days.
- Wheezing or continued coughing (report this to a physician)
- Skin rash and itching
- Swelling of face, lips, or eyelids
- Difficulty breathing
- Brown or dark urine
- Loss of appetite
- Nausea
- Vomiting
- Severe itching
- Headache
- Cough or sore throat
- Indigestion or mild stomach ache
- Runny or stuffy nose

Proper Storage

- Room temperature

Zalcitabine

HIVID®

Therapeutic Category (Common Uses)

- Antiviral (HIV)

Normal Dosage Range

Children 13 years and older 0.75 mg every 8 hours

Adults 0.75 mg every 8 hours

Usual Administration Schedule

- Every 8 hours

Medication Administration Considerations

- Give on an empty stomach

Common Side Effects & Adverse Reactions

- Stomach upset
- Mouth sores
- Diarrhea
- Rash
- Headache
- Fever or fatigue during first few days

Proper Storage

- Room temperature

Other Comments Or Instructions

- Students may be receiving other antivirals that are appropriate to be given at the same time

Zidovudine

Retovir,[®] AZT[®]

Therapeutic Category (Common Uses)

- Antiviral (HIV)

Normal Dosage Range

Children 90 - 180 mg/M² per dose, every 6 hours.
Maximum of 200 mg per dose.

Adults 100 - 200 mg per dose, every 4 - 8 hours

Usual Administration Schedule

- Every 4 - 8 hours

Medication Administration Considerations

- Must be taken on a rigid schedule

Common Side Effects & Adverse Reactions

- Headache
- Muscle soreness
- Nausea
- Vomiting
- Discoloration of finger and toe nails

Proper Storage

- Room temperature

Other Comments Or Instructions

- Student may be receiving other antiviral medication that may be given at the same time

Zyflo®

Therapeutic Category (Common Uses)

- Bronchodilator (leukotriene inhibitor)
- Asthma (maintenance medication, the student will also have breakthrough medication, usually an inhaler)
- Ulcerative colitis

Normal Dosage Range

Children and Adults	600 mg per dose
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Usual Administration Schedule

- 4 times a day

Medication Administration Considerations

- May be taken with other asthma medication
- May take with or without food
- If you miss a scheduled dose, take the medicine as soon as possible, unless it is almost time for your next scheduled dose. Do not take two doses at the same time.

Common Side Effects & Adverse Reactions

- May cause liver problems. Look for pain in the right upper part of your abdomen, yellowing of skin or eyes, itching, or if student is unusually tired.
- Flu like symptoms may also indicate liver damage, but if it's really the flu, the symptoms will go away in a few days.
- Chest pain
- Difficulty breathing, wheezing
- Nausea
- Skin rash or itching

Proper Storage

- Room temperature, away from direct sunlight

Other Comments Or Instructions

- Zileuton takes a few days to obtain a sufficient concentration in the body to be effective, and it must be taken every day, even when not having problems with asthma. Zileuton will not stop a severe asthma attack after it has started. A severe attack requires the use of additional medication, usually an inhaler.



Over The Counter (OTC/Non-prescription) Medication



OTC medication is labeled by the manufacturer with an FDA approved dosage range. Most OTC drugs carry the warning “not intended for use with children.” This is because the manufacturer has not done dose finding studies to establish safe and effective pediatric doses. The reason for this is related to the cost of such studies, and the difficulty in obtaining patient consent for children. We recommend that OTC drugs used in schools should be prescribed by a physician, including the appropriate dose. If the student requires a dose higher than the FDA approved dose, a prescription is required from a licensed prescriber. For medication dosing purposes, 16 years is generally considered an adult.

Asthma Relief

Over the Counter asthma relief products are available without a prescription and can help ease breathing for minor symptoms of asthma (tightness, wheezing). These should not be used in conjunction with prescription medications, without a physicians written prescription.

<i>Medication Name</i>	<i>Category</i>	<i>Adult Dose</i>	<i>Frequency</i>	<i>Comments</i>
Epinephrine: Primatene Mist® Bronkade Mist®	Bronchial Dilator	1 inhalation	As directed.	Wait 1 - 5 minutes between doses to give the medication time to work, and avoid an overdose. This provides temporary relief. If you need it frequently, see your physician.
Cromolyn® Nasalacrom Spray®	Prevents Histamine Release	1 inhalation, or as directed.	2 - 4 times a day.	It is extremely important to take this on a regular pattern once you start. Otherwise, you could cause the problem to become worse. We recommend consulting a pharmacist or physician before self medicating with any cromolyn containing products.

Nicotine and Smoking Cessation

An effective technique to assist someone attempting to quit smoking is to provide an increasingly lower doses of nicotine until they finally do not “crave” it anymore. It is important that students register with the school nurse if they are using these products. The school should consider a policy to only allow students who are “approved” to use these products because of the potential for students to abuse these products as a source of nicotine throughout the day.

<i>Product</i>	<i>Dosage Form</i>	<i>Dose</i>	<i>Side Effects</i>	<i>Comments</i>
Nicorette®	Gum	1 piece every 1 - 4 hours, 24 per day max.	Hiccups Nausea & Vomiting Headaches Indigestion Jaw Soreness	Activate by chewing. When tingling is felt, part between cheek and gums for 5 minutes. Repeat cycle. No acidic food or beverage during use (eg. cola).
Nicotrol®	Patch	15 mg patch once a day. Patch lasts for 16 hours, therefore remove it at night, and place a fresh one in the morning.	Local skin reaction Headaches	Rotate Patch Sites to minimize skin irritation.

Nicotine and Smoking Cessation *(continued)*

<i>Product</i>	<i>Dosage Form</i>	<i>Dose</i>	<i>Side Effects</i>	<i>Comments</i>
Nicoderm CQ®	Patch	7, 14, or 21 mg patches which can be worn for 16 - 24 hours before being replaced. Dose is based on a tapering schedule.	Local skin reaction Headaches Sleep disturbances	Rotate Patch Sites to minimize skin irritation.
Habitrol®	Patch	7, 14, or 21 mg patches which can be worn for 16 - 24 hours before being replaced. Dose is based on a tapering schedule.	Local skin reaction Headaches Sleep disturbances	Rotate Patch Sites to minimize skin irritation.
Prostep®	Patch	11 or 22 mg patches which can be worn for 16 - 24 hours before being replaced. Dose is based on a tapering schedule.	Local skin reaction Headaches Sleep disturbances	Rotate Patch Sites to minimize skin irritation.
Nicotrol NS®	Nasal Spray	1 – 2 sprays in each nostril every hour for 6 - 8 weeks. Gradually decrease use. Not to exceed 5 sprays/hour, or 40 sprays/day.	Hot pepper sensation in nose/throat Sneezing, coughing Watery eyes Runny nose	Avoid contact with skin. DO NOT INHALE while spraying.
Nicotrol Inhaler®	Oral Inhaler	6 - 16 cartridges/day. Continuous puffing for 20 minutes each.	Irritation of throat and mouth Bad taste in mouth Coughing Runny nose Hiccups Dyspepsia Headache	Designed to work/feel like a cigarette. Do not use for more than 6 months.
Zyban®	(Bupropion)	Oral 150 mg sustained release tablet. Once daily for 3 weeks, then 2 times a day. Prescription required.	Heart rate increase, chest pain (notify MD immediately) Dry mouth Insomnia Nervousness Rash Constipation	See Medication Monograph for Bupropion. Used to suppress nicotine withdrawal symptoms, therefore student quits smoking 2 weeks into therapy. Can be used with nicotine replacement aids.

There are hundreds of products available in various combinations. Some of the most popular, in terms of sales are listed. It is generally a good idea to only treat the symptoms you have, in other words, if you aren't coughing, you don't need a combination which contains an antitussive (cough suppressant). When in doubt about which product is best, ask a physician or pharmacist. *You can also ask a pharmacist to recommend products which are sugar free, dye free, and/or alcohol free.*

Decongestant: constricts the blood vessels which cause the mucous membrane of your nose and sinuses to swell up with fluids, thus causing a drying effect. They can also cause a rapid pulse, blurred vision, dizziness, and a "cotton mouth" sensation. They will dry your eye secretions, and contact lens wearers should either use more artificial tears, or avoid wearing contacts.

Expectorant: breaks up thick congested mucous. These will be helped by drinking plenty of fluids, more than the 8 glasses a day you should normally drink. Warm moist air also helps break up congestion. When expectorants begin to work, you may cough more, as your body attempts to remove the build up of mucous. This is not necessarily a bad thing, especially if you are able to spit out a lot of mucous. Some expectorants contain "iodine" and should not be used if you have a thyroid condition.

Antitussive: works directly on the cough control center of your brain to suppress coughing. Most antitussive medication cause drowsiness, and some contain codeine or codeine derivatives which can be addicting. Be careful if you drive or operate other machinery while taking cough suppressants.

Antihistamine: suppresses the release of histamine in you body which causes allergic reactions, increased secretion into the lungs, tightness when breathing, and respiratory symptoms. Many combination products contain antihistamines which are not necessary unless the source of your condition is related to an irritant which causes histamine release, such as pollen, animal dander, or foods. Most antihistamine products cause drowsiness, therefore use caution when driving or operating other dangerous machinery.

Dosing: *Take all products as directed on the manufactures label, unless directed otherwise by a physician or pharmacist.*

Cough and Cold Products

<i>Medication Name</i>	<i>Decongestant</i>	<i>Expectorant</i>	<i>Antitussive</i>	<i>Antihistamine</i>	<i>Other Active Ingredients</i>
Pseudoephedrine Sudafed®	Yes	No	No	No	
Guaifenesin Robitussin®	No	Yes	No	No	
Robitussin PE®	Yes	Yes	No	No	
Triaminic Expectorant®	Yes	Yes	No	No	
DayQuil®	Yes	Yes	Yes	No	
Sudafed Cough Syrup®	Yes	Yes	Yes	No	
Robitussin DM®	No	Yes	Yes	No	
Dimetapp®	Yes	No	No	Yes	
Drixoral®	Yes	No	No	Yes	
Tavist D®	Yes	No	No	Yes	
Contac-12 Hour®	Yes	No	No	Yes	
Vicks Formula 44D®	Yes	No	No	Yes	
Triaminic DM®	Yes	No	No	Yes	
Actifed®	Yes	No	No	Yes	
Comtrex®	Yes	No	Yes	Yes	Acetaminophen (Tylenol), 20% Alcohol
Nyquil®	Yes	No	Yes	Yes	Acetaminophen (Tylenol)

Antacids and Acid Control

Antacids are taken by mouth to neutralize or prevent acid “burn” (heartburn) in the stomach. There are four categories, each with different considerations.

- Non-absorbable antacids are a combination of magnesium and aluminum salts which neutralize stomach acid and decrease heartburn, ulcer pain, gas pain, and upset stomach. These are generally safe, however over use can cause constipation or diarrhea depending on the relative magnesium (loosens stools) and aluminum (constipating) content. Generally speaking, the liquid form is more effective than well chewed tablets.
- Reflux antacid (Gaviscon) is a non-absorbable antacids which “floats” in the stomach and is specifically indicated for people who have “reflux esophagitis”. This is a condition where a small amount of stomach content comes up into the esophagus (because of belching) and causes irritation. If you don’t have this condition, use another product.
- Absorbable antacids are more powerful stomach neutralizers, however they are absorbed into the body. In the case of sodium bicarbonate and Alka-Seltzer, this can give you a large dose of sodium, which is especially bad if you have high blood pressure. In the case of Tums, this can provide a source of calcium carbonate, that may be desirable for you.
- Stomach acid blockers prevent the production of acid in the stomach. These should be used if other antacids are not effective. These medication must be taken as directed, may have side effects, and may interact with other medication.

Antacids and Acid Control

<i>Medication Name</i>	<i>Category</i>	<i>Adult Dose</i>	<i>Frequency</i>	<i>Comments</i>
Maalox®	Non-Absorbed	2 tablespoonsful or 2 tablets	2 - 6 times a day	May cause loose stools.
Mylanta®, Gelusi®, Riopan®	Non-Absorbed	2 tablespoonsful or 2 tablets	2 - 6 times a day	Usually does not effect bowels.
Amphojel®, Aludrox®	Non-Absorbed	2 tablespoonsful or 2 tablets	2 - 6 times a day	May be constipating.
Digel®	Non-Absorbed	2 tablespoonsful or 2 tablets	2 - 6 times a day	Lowest Sodium Content of the group.
Gaviscon®	Reflux	2 tablespoonsful or 2 tablets	2 - 6 times a day	For Reflux Esophagitis.
Tums®	Absorbed	1 or 2 tablets	2 - 6 times a day	Good source of calcium.
Rolaids®	Absorbed	1 or 2 tablets	2 - 6 times a day	High sodium content therefore routine use is not recommended.
Sodium Bicarbonate	Absorbed	Not Recommended		High sodium content. Sodium Bicarbonate is not recommended. Routine use is not recommended.
Famotidine (Pepcid AC®)	Stomach Acid Blocker	40 mg	Daily at bedtime	Use if antacids are not effective.
Ranitidine (Zantac®)	Stomach Acid Blocker	150 mg	2 times a day, before meals	Use if antacids are not effective.
Cimetidine (Tagamet®)	Stomach Acid Blocker	200 mg, 300 mg	3 times a day, before meals	May interfere with other medication used for blood thinning (warfarin), asthma (theophylline), seizure medication, heart medication (beta blockers and calcium channel blockers).

Anthelmintics (Worms)

Anthelmintics are used to treat worms. Some medications are broad spectrum, and some are specific for only certain kinds of worms. A student should not attend school while being treated for worms because of the contagious nature of the condition. If a student is suspected of having worms the school nurse should be notified, and the entire family should be treated, simultaneously, and appropriate hygiene methods initiated. In addition a thorough cleaning of the house and clothing should be prescribed to prevent re-infections. Especially important is frequent handwashing.

OTC preparations are available for Pinworms. If another kind of worm infection is suspected the student should be referred to a physician.

<i>Medication Name</i>	<i>Category</i>	<i>Dosage Form</i>	<i>Dose and Frequency</i>	<i>Comments</i>
Pyrantel Pamoate (Antiminth®)	Anthelmintic (Pinworms)	Suspension 250 mg/5 ml	11 mg/kg not to exceed 1 gram per dose. Give 2 doses, 14 days apart.	Side effects are uncommon. Call a physician if patient experiences abdominal cramps, nausea, vomiting, anorexia, diarrhea, headache, drowsiness, or dizziness.
Pyrantel Pamoate (Pin-x®)	Anthelmintic (Pinworms)	Liquid 250 mg/5 ml	11 mg/kg not to exceed 1 gram per dose. Give 2 doses, 14 days apart.	Side effects are uncommon. Call a physician if patient experiences abdominal cramps, nausea, vomiting, anorexia, diarrhea, headache, drowsiness, or dizziness.
Pyrantel Pamoate (Reese's Pinworm®)	Anthelmintic (Pinworms)	Liquid 250 mg/5 ml	11 mg/kg not to exceed 1 gram per dose. Give 2 doses, 14 days apart.	Side effects are uncommon. Call a physician if patient experiences abdominal cramps, nausea, vomiting, anorexia, diarrhea, headache, drowsiness, or dizziness.
Pyrantel Base (Reese's Pinworm®)	Anthelmintic (Pinworms)	Caplet 180 mg	11 mg/kg not to exceed 1 gram per dose. Give 2 doses, 14 days apart.	Side effects are uncommon. Call a physician if patient experiences abdominal cramps, nausea, vomiting, anorexia, diarrhea, headache, drowsiness, or dizziness.

Antihistamines (Allergies)

Antihistamines block the release of histamine, which is released by your body in response to an allergic stimulus. Antihistamines generally cause drowsiness, so be cautious if you are driving, or operating machinery.

<i>Medication Name</i>	<i>Category</i>	<i>Adult Dose</i>	<i>Frequency</i>	<i>Comments</i>
Diphenhydramine (Benadryl®)	Antihistamine	25 mg	every 6 - 8 hours	Most powerful antihistamine for allergic emergencies. Other antihistamines are usually used for “cold like” symptoms associated with allergies. Causes drowsiness. May use 50 mg at bedtime to aid with sleep.
Chlorpheniramine Maleate (ChlorTrimeton®)	Antihistamine	4 - 8 mg	every 6 - 8 hours	Also available as sustained release form to be taken every 12 hours.
Brompheniramine Maleate (Dimetane®)	Antihistamine	4 mg	every 4 - 6 hours	Also available as sustained release form to be taken every 8 - 12 hours.
Promethazine (Phenergan®)	Antihistamine	25 mg	every 6 - 8 hours	Also available as a suppository. Prescription required.
Tavist-1®	Antihistamine	1.34 mg	2 - 3 times a day	

Constipation Preparations (Laxatives and Stool Softeners)

- If the student is severely impacted, a laxative won't work and you should call your doctor. If there is blood in your stool, or the student requires laxatives every day to have a bowel movement, you should call a doctor.
- The student should drink plenty of fluids for several reasons. Preventing constipation is one of those reasons.
- Laxatives work in one of several ways and may be gentle or harsh to your system depending on how they work.
 - Bulk Laxatives are high in fiber and provide bulk, much of which is water. Your intestine responds to this pressure by contracting. These are usually the most gentle laxatives and what we recommend first.
 - Osmotic or Saline Laxatives are high in salt, and draw water into your intestine. This forms a diarrhea which is usually only temporary. These laxatives should only be used occasionally, and for serious situations. They should be avoided if you are on a salt restricted diet. This is the most harsh kind of laxative.
 - Stimulant or Irritant Laxatives chemically irritate your intestine and cause them to contract. These are harsh, and can cause damage if you don't have much content in your intestine.
 - Emollient or Oil Laxatives provide both lubrication and are irritating. These are generally messy, and not as effective or safe as other types. Mineral oil is the typical example, however we do not recommend it.
- Stool Softeners are not really laxatives, but they can soften your stool so that it is easier to pass. Because of this, the body may not need a laxative, therefore it is included in this category. Stool softeners will not help if you are constipated, but they can help you prevent becoming constipated. Some products contain both a softener and a laxative.

<i>Medication Name</i>	<i>Category</i>	<i>Adult Dose</i>	<i>Frequency</i>	<i>Comments</i>
Psyllium: Metamucil® Hydrocil® Naturacil®	Bulk	As directed	1 - 3 times a day with a full glass of water	
Methylcellulose: Citrucil® Cologel® Maltsuprex®	Bulk	As directed	1 - 3 times a day with a full glass of water	
Polycarbophile: FiberCon® Mitrolan®	Bulk	500 mg	1 - 4 times a day with a full glass of water	
Magnesium Citrate: Citroma® Citro-Nesa®	Saline	240 ml (full bottle) or as directed	Once	Repeat doses are not recommended. If no results, call your doctor.
Magnesium Hydroxide (MOM)	Saline	15 - 30 ml (1 - 2 tablespoons)	1 - 3 times a day	
Sodium Phosphate (Fleets Enema®)	Saline	Insert rectally as directed.	Once or twice	Very rapid action. Use as directed. Don't repeat more than once.

Constipation Preparations (Laxatives and Stool Softeners) *(continued)*

<i>Medication Name</i>	<i>Category</i>	<i>Adult Dose</i>	<i>Frequency</i>	<i>Comments</i>
Magnesium Sulfate (Epsom Salts)	Saline	Not Recommended		This is very harsh and can lead to cramping, and electrolyte imbalance.
Senna: Sennokot® X-Lax®	Stimulant	1 - 2 tablets	Once at bedtime	
Biscodyl: Dulcolax® Docodyl®	Stimulant	5 mg tablet	2 - 3 times a day, until you get results	Swallow whole, don't chew tablets. Do NOT take within 1 hour of milk or antacids.
Cascara Sagrada	Stimulant	1 tablet or 5 ml liquid	At bedtime with water	
Phenolphthalein: Correctol®	Stimulant			No longer on the market.
Casanthranol: Dantron®	Stimulant	75 mg	1 hour after your evening meal	
Docusate & Casanthranol: Pericolace®	Stool softener Stimulant	1 or 2 capsules	At bedtime with water	Do not chew capsules.
Docusate & Senna: Senokot S®	Stool softener Stimulant	1 or 2 tablets	At bedtime with water	
Docusate: Colace® DOSS®	Stool softener	50 and 100 mg	1 or 2 at bedtime.	
Lactulose (Cephulac®)	Stool softener Bulk	30 ml	Once daily	Can cause excess gas and abdominal cramping. Not for repeated use.
Glycerin	Osmotic	Suppository	No more than 4 per day	No more than 2 days.
Haley's MO®	Saline and Lubricant	15 ml	Every 4 hours up to 4 doses per day.	

Diarrhea Preparations

The most potent anti-diarrhea medication require a prescription. However, there are several over the counter medication that do a good job. If these medication do not work within a day or two, or if the diarrhea contains blood (red, or black and tar like), call a doctor right away.

Medication Name	Category	Adult Dose	Frequency	Comments
Loperamide (Imodium AD®)	Anti-diarrhea	2 mg tablets	4 mg after first loose stool, then 2 mg after each loose stool. No more than 8 mg a day.	Don't take longer than 2 days before calling your doctor.
Bismuth (Pepto Bismol®)	Anti-diarrhea	30 ml or 2 tablets	up to 8 times a day.	
Lactobacillis (Bacid®) (Lactinex®)	Restores normal gut bacteria.	Tablets or granules to be dissolved.	Take as directed.	Must be refrigerated, ask pharmacist for this product. Yogurt with live colonies will also restore gut flora, however not as quickly.
Parapectolin (Kaopectate®)	Anti-diarrhea	60 - 120 ml	After each loose bowel movement.	Don't take more than 6 - 8 times a day, or for more than 2 days before calling your doctor.
Paregoric (Donnagel-PG®)	Anti-diarrhea	Liquid or in combination with other medication.	Ask your pharmacist for directions when purchasing.	Not available everywhere, however may be purchased from a pharmacist in some states. Ask if you feel you need something this powerful.

Ear Care

<i>Medication Name</i>	<i>Category</i>	<i>Adult Dose</i>	<i>Frequency</i>	<i>Comments</i>
Carbamide Peroxide: Debrox® Murine Ear®	Wax Removal	5 - 10 drops	2 times a day	Use up to 4 days. If no results, see your doctor. Follow directions closely.
Boric Acid: Dri Ear® Swim Ear®	Soothes and Cleans Ear	3 - 6 drops	Each ear, after swimming	May decrease inflammation, however if ear is very inflamed and painful call your doctor.

Eye Care

<i>Medication Name</i>	<i>Category</i>	<i>Adult Dose</i>	<i>Frequency</i>	<i>Comments</i>
Naphazoline: Clear Eyes® Allerest® Naphcon®	Vasoconstrictor	1 - 2 drops	every 3 - 4 hours	Soothe & removes redness.
Tetrahydrazoline: Murine Plus® Visine®	Vasoconstrictor	1 - 2 drops	every 3 - 4 hours	Soothe & removes redness.
Isopto Tears® Lacril® Liquifilm® Murine® Tearisol® TearsNaturale® Hypotears®	Artificial Tears	1 - 2 drops	every 3 - 4 hours	Soothes dry eyes.

Mouth Care

<i>Medication Name</i>	<i>Category</i>	<i>Adult Dose</i>	<i>Frequency</i>	<i>Comments</i>
Chlorhexidine: Peridex®	Antiseptic, mouth sores	15 ml	2 times a day	Rinse mouth for 30 seconds. Do not swallow.
Carbamide Peroxide: Cankaid® Glyoxide® Proxigel®	Antiseptic, Canker and cold sores	As directed	4 times a day	Apply directly to sores. Don't dilute. Don't rinse mouth for 30 minutes. Don't spit out.
Benzocaine: Orabase-O® Orajel® Ambesol® Num-zit® Tanac® Kank-a®	Analgesic	As directed	When needed	Provides temporary relief of pain from toothache or sores.
Zilactin® Zila® Canker	Cold Sores	As directed	When needed	
Herpecin®	Canker Cold Sores	As directed	When needed	
Carmex Balm®	Canker Cold Sores Chapped lips	As directed	When needed	Promotes healing.
Blistex® Cold sores	Canker	As directed	When needed	

Pain (Analgesic), Fever (Antipyretic), Redness (Anti-inflammatory)

<i>Medication Name</i>	<i>Category</i>	<i>Adult Dose</i>	<i>Frequency</i>	<i>Comments</i>
Acetaminophen Tylenol®	Analgesic Antipyretic	325 mg	1 - 2 tablets, 3 - 4 times a day	
Aspirin Bayer® Ecotrin® Excedrin® Anacin® St. Joseph's®	Analgesic Antipyretic Anti-inflammatory	325 mg	1 - 2 tablets, 3 - 4 times a day	Aspirin can “thin” blood, and slow clotting times. If you are taking “blood thinners” such as Coumadin or heparin, do not take aspirin. If you have low platelets (thrombocytopenic), don't take aspirin. If aspirin upsets your stomach, take the enteric coated brand (Ecotrin, Aspirin EC) which doesn't dissolve until after it passes your stomach.
Ibuprofen Advil® Motrin®	Analgesic Antipyretic	200 mg	1 - 2 tablets, 3 - 4 times a day	While not as much as aspirin, it can “thin” blood, and slow clotting times. If you are taking “blood thinners” such as Coumadin or heparin, do not take ibuprofen. If you have low platelets (thrombocytopenic), don't take ibuprofen. Can cause photosensitivity, wear a sunscreen when outside.
Ketoprofen Orudis® Actron®	Analgesic Antipyretic	25 mg	1 - 2 tablets, 3 times a day	While not as much as aspirin, it can “thin” blood, and slow clotting times. If you are taking “blood thinners” such as Coumadin or heparin, do not take ketoprofen. If you have low platelets (thrombocytopenic), don't take ketoprofen. Can cause photosensitivity, wear a sunscreen when outside.
Naproxen Aleve®	Analgesic Antipyretic	250 mg	3 - 4 times a day	While not as much as aspirin, it can “thin” blood, and slow clotting times. If you are taking “blood thinners” such as Coumadin or heparin, do not take naproxen. If you have low platelets (thrombocytopenic), don't take naproxen. Can cause photosensitivity, wear a sunscreen when outside.

Pediculicide (Treatment of Lice and Scabies)

<i>Medication Name</i>	<i>Category</i>	<i>Adult Dose</i>	<i>Frequency</i>	<i>Comments</i>
Pyrethrins + Piperonyl Butoxide: Rid® A-200® Bare® Tisit® Kwell®	Lice or Scabies	As directed	Daily	Available as shampoo, liquid, or gel. Use carefully as directed.

Skin Products: Rashes, Itching, Poison Ivy, Wart Removal

<i>Medication Name</i>	<i>Category</i>	<i>Adult Dose</i>	<i>Frequency</i>	<i>Comments</i>
Hydrocortisone	Rashes/Itching	0.25%, 0.5%, 1%	1 - 4 times a day	Any cream or ointment containing hydrocortisone. Be careful to avoid getting into your eye.
Desitin®	Diaper Rash Bedsore		After cleansing	
Balmex®	Diaper Rash Bedsore		After cleansing	
Benzocaine: Americaine® Dermoplast® Rhulicaine® Solarcaine® Foille Plus®	Analgesic for minor burns	Light coating	1 - 4 times a day	For minor burns. Spray, cream, or ointment. Use a light coating. Avoid getting into your eye.
Lidocaine: Xylocaine®	Analgesic for minor burns	Light coating	1 - 4 times a day	For minor burns. Spray, cream, or ointment. Use a light coating Avoid getting into your eye.
Dibucaine: Nupercainal®	Analgesic for minor burns	Light coating	1 - 4 times a day	This hemorrhoid product also is excellent for minor burns. Avoid getting into your eye.
Tolnaftate: Tinactin® NP-27® Aftate®	Foot Fungus	As directed	As directed	Apply using a “q-tip”, or wash hands after applying. If area is cracked and bleeding call your physician.

Skin Products *(continued)*

<i>Medication Name</i>	<i>Category</i>	<i>Adult Dose</i>	<i>Frequency</i>	<i>Comments</i>
Salicylic Acid: Compound W® Wart Off® Free zone®	Keratolytic (Wart Removal)	As directed	As directed	Consult your doctor before using these products, especially if you have recently, or are currently undergoing cancer treatment.
Hexachlorophene PhisoHex® Septisoft®	Antiseptic Germicide	As directed to clean skin or wounds		Available as a soap.
Chlorhexidine: Hibiclens®	Antiseptic Germicide	As directed to clean skin or wounds		Available as a liquid or soap.
Benzalkonium Chloride: Zephiran®	Antiseptic Germicide	As directed to clean skin or wounds		Available as a liquid.
Gluteraldehyde: Cidex®	Antiseptic Germicide	As directed to clean skin or wounds		Available as a liquid.
Calamine Lotion®	Itching	Apply thin coating	3 - 4 times a day	
Ivy-Dry® Rhuligel® Rhulicream® Rhulispray®	Poison Ivy	Apply as directed		Use a cloth or “q-tips” to apply.

Vaginal Antifungal

<i>Medication Name</i>	<i>Category</i>	<i>Adult Dose</i>	<i>Frequency</i>	<i>Comments</i>
Clotrimazole: Monistat®, Gyne-Lotrimin®	Anti Fungal	1 vaginal suppository	Once a day, usually at bedtime	
Butoconazole: Femstat®	Anti Fungal	1 applicator	Once a day, usually at bedtime	
Troconazole: Vagistat®	Anti Fungal	1 applicator	Once a day, usually at bedtime	



Vaccinations

Florida Immunization Requirements

Students in kindergarten through grade 12, who are new to Florida schools, must show proof of a physical exam completed within the last 12 months. Immunization records must show that minimum state requirements have been met. Current requirements are listed at the Florida Department of Health Website, under “Mothers and Children,” “Immunization.” www.doh.state.fl.us/

Immunization and Record Requirements

For Children Entering or Attending School, Child Care, Family Day Care and/or Preschool

Forms Required for Immunization Documentation

- Department of Health Form 680
- Ask your doctor, clinic or county health department to fill out the Department of Health Form 680 for you. Don't forget to take your child's immunization record with you.

Immunizations Required for Preschool Entry (age-appropriate doses as are medically indicated)

- Diphtheria-Tetanus-Pertussis Series
- Haemophilus influenzae type b (Hib)
- Hepatitis B (effective in 2001-02 school year)
- Measles-Mumps-Rubella (MMR)
- Polio Series
- Varicella (effective in 2001-02 school year)

Immunizations Required for Kindergarten Entry

- Diphtheria-Tetanus-Pertussis Series
- Hepatitis B Series
- Measles-Mumps-Rubella (two doses of Measles vaccine, preferably as MMR)
- Polio Series
- Varicella (effective in 2001-02 school year)

Immunizations Required for 7th Grade Entry

- Hepatitis B Series
- Second Dose of Measles Vaccine (preferably MMR vaccine)
- Tetanus-Diphtheria Booster

Immunizations Required for Child Care and/or Family Day Care (up-to-date for age)

- Diphtheria-Tetanus-Pertussis
- Haemophilus influenzae type b
- Measles-Mumps-Rubella
- Polio
- Varicella (effective July 2001)

For more information, contact your County Health Department or private physician.

Center for Disease Control Guidelines

The following is a statement by the Center for Disease Control of the National Institutes of Health and is considered to be the benchmark standard for vaccinations. The immunization schedule is based on recommendations which have been approved by the Advisory Committee on Immunization Practices (ACIP), the American Academy of Pediatrics (AAP), and the American Academy of Family Physicians (AAFP). The CDC website is www.cdc.gov and the current vaccination standards are maintained at www.cdc.gov/nip/recs/child-schedule.htm#printable.

Additional references include:

National Vaccine Program Office
56 Fishers Lane
Rockville II Building
Rockville, MD 20857
(301) 594-6350

National Coalition for Adult Immunization (NCAI)
4733 Bethesda Ave., Suite 750
Bethesda, MD 20814-5228
(301) 656-0003
www.medscape.com/NCAI

Florida Department of Health
Bureau of Immunization
1317 Winewood Blvd., Tallahassee, FL 32399-0700
www.doh.state.fl.us

Centers for Disease Control
National Immunization Program
Atlanta, GA 30333
800-232-2522 English
800-232-0233 Spanish
www.cdc.gov/nip
www.cdc.gov/nip/recs/child-schedule.htm

Florida Statutes
www.myflorida.com

World Health Organization (WHO)
Global Programme on Vaccines
CH-1211 Geneva 27, Switzerland
Phone: 41-791-21-11
www.who.int/en



Recommended Childhood and Adolescent Immunization Schedule -- United States, 2003

Vaccine ▼	Age ▶	range of recommended ages				catch-up vaccination				preadolescent assessment			
		Birth	1 mo	2 mos	4 mos	6 mos	12 mos	15 mos	18 mos	24 mos	4-6 yrs	11-12 yrs	13-18 yrs
Hepatitis B ¹		HepB #1	only if mother is HBsAg (-)								HepB series		
			HepB #2			HepB #3							
Diphtheria, Tetanus, Pertussis ²			DTaP	DTaP	DTaP		DTaP			DTaP		Td	
<i>Haemophilus influenzae</i> Type b ³			Hib	Hib	Hib		Hib						
Inactivated Polio			IPV	IPV	IPV					IPV			
Measles, Mumps, Rubella ⁴						MMR #1				MMR #2		MMR #2	
Varicella ⁵						Varicella			Varicella				
Pneumococcal ⁶			PCV	PCV	PCV	PCV			PCV		PPV		
----- Vaccines below this line are for selected populations -----													
Hepatitis A ⁷									Hepatitis A series				
Influenza ⁸					Influenza (yearly)								

This schedule indicates the recommended ages for routine administration of currently licensed childhood vaccines, as of December 1, 2002, for children through age 18 years. Any dose not given at the recommended age should be given at any subsequent visit when indicated and feasible. Indicates age groups that warrant special effort to administer those vaccines not previously given. Additional vaccines may be licensed and recommended during the year. Licensed combination vaccines may be used whenever any components of the combination are indicated and the vaccine's other components are not contraindicated. Providers should consult the manufacturers' package inserts for detailed recommendations.

1. Hepatitis B vaccine (HepB). All infants should receive the first dose of hepatitis B vaccine soon after birth and before hospital discharge; the first dose may also be given by age 2 months if the infant's mother is HBsAg-negative. Only monovalent HepB can be used for the birth dose. Monovalent or combination vaccine containing HepB may be used to complete the series. Four doses of vaccine may be administered when a birth dose is given. The second dose should be given at least 4 weeks after the first dose, except for combination vaccines which cannot be administered before age 6 weeks. The third dose should be given at least 16 weeks after the first dose and at least 8 weeks after the second dose. The last dose in the vaccination series (third or fourth dose) should not be administered before age 6 months.

Infants born to HBsAg-positive mothers should receive HepB and 0.5 mL Hepatitis B Immune Globulin (HBIG) within 12 hours of birth at separate sites. The second dose is recommended at age 1-2 months. The last dose in the vaccination series should not be administered before age 6 months. These infants should be tested for HBsAg and anti-HBs at 9-15 months of age.

Infants born to mothers whose HBsAg status is unknown should receive the first dose of the HepB series within 12 hours of birth. Maternal blood should be drawn as soon as possible to determine the mother's HBsAg status; if the HBsAg test is positive, the infant should receive HBIG as soon as possible (no later than age 1 week). The second dose is recommended at age 1-2 months. The last dose in the vaccination series should not be administered before age 6 months.

2. Diphtheria and tetanus toxoids and acellular pertussis vaccine (DTaP). The fourth dose of DTaP may be administered as early as age 12 months, provided 6 months have elapsed since the third dose and the child is unlikely to return at age 15-18 months. **Tetanus and diphtheria toxoids (Td)** is recommended at age 11-12 years if at least 5 years have elapsed since the last dose of tetanus and diphtheria toxoid-containing vaccine. Subsequent routine Td boosters are recommended every 10 years.

3. *Haemophilus influenzae* type b (Hib) conjugate vaccine. Three Hib conjugate vaccines are licensed for infant use. If PRP-OMP (PedvaxHIB® or ComVax® [Merck]) is administered at ages 2 and 4 months, a dose at age 6 months is not required. DTaP/Hib combination products should not be used for primary immunization in infants at ages 2, 4 or 6 months, but can be used as boosters following any Hib vaccine.

4. Measles, mumps, and rubella vaccine (MMR). The second dose of MMR is recommended routinely at age 4-6 years but may be administered during any visit, provided at least 4 weeks have elapsed since the first dose and that both doses are administered beginning at or after age 12 months. Those who have not previously received the second dose should complete the schedule by the 11-12 year old visit.

5. Varicella vaccine. Varicella vaccine is recommended at any visit at or after age 12 months for susceptible children, i.e. those who lack a reliable history of chickenpox. Susceptible persons aged ≥13 years should receive two doses, given at least 4 weeks apart.

6. Pneumococcal vaccine. The heptavalent pneumococcal conjugate vaccine (PCV) is recommended for all children age 2-23 months. It is also recommended for certain children age 24-59 months. **Pneumococcal polysaccharide vaccine (PPV)** is recommended in addition to PCV for certain high-risk groups. See *MMWR* 2000;49(RR-9);1-38.

7. Hepatitis A vaccine. Hepatitis A vaccine is recommended for children and adolescents in selected states and regions, and for certain high-risk groups; consult your local public health authority. Children and adolescents in these states, regions, and high risk groups who have not been immunized against hepatitis A can begin the hepatitis A vaccination series during any visit. The two doses in the series should be administered at least 6 months apart. See *MMWR* 1999;48(RR-12);1-37.

8. Influenza vaccine. Influenza vaccine is recommended annually for children age ≥6 months with certain risk factors (including but not limited to asthma, cardiac disease, sickle cell disease, HIV, diabetes, and household members of persons in groups at high risk; see *MMWR* 2002;51(RR-3);1-31), and can be administered to all others wishing to obtain immunity. In addition, healthy children age 6-23 months are encouraged to receive influenza vaccine if feasible because children in this age group are at substantially increased risk for influenza-related hospitalizations. Children aged ≤12 years should receive vaccine in a dosage appropriate for their age (0.25 mL if age 6-35 months or 0.5 mL if aged ≥3 years). Children aged ≤8 years who are receiving influenza vaccine for the first time should receive two doses separated by at least 4 weeks.

For additional information about vaccines, including precautions and contraindications for immunization and vaccine shortages, please visit the National Immunization Program Website at www.cdc.gov/nip or call the National Immunization Information Hotline at 800-232-2522 (English) or 800-232-0233 (Spanish).

For Children and Adolescents Who Start Late or Who Are >1 Month Behind

Tables 1 and 2 give catch-up schedules and minimum intervals between doses for children who have delayed immunizations. There is no need to restart a vaccine series regardless of the time that has elapsed between doses. Use the chart appropriate for the child's age.

Table 1. Catch-up schedule for children age 4 months through 6 years

Dose One (Minimum Age)	Minimum Interval Between Doses			
	Dose One to Dose Two	Dose Two to Dose Three	Dose Three to Dose Four	Dose Four to Dose Five
DTaP (6 wks)	4 weeks	4 weeks	6 months	6 months ¹
IPV (6 wks)	4 weeks	4 weeks	4 weeks ²	
HepB ³ (birth)	4 weeks	8 weeks (and 16 weeks after first dose)		
MMR (12 mos)	4 weeks ⁴			
Varicella (12 mos)				
Hib ⁵ (6 wks)	4 weeks: if 1 st dose given at age <12 mos 8 weeks (as final dose): if 1 st dose given at age 12-14 mos No further doses needed: if first dose given at age ≥15 mos	4 weeks ⁶ : if current age <12 mos 8 weeks (as final dose) ⁶ : if current age ≥12 mos and 2 nd dose given at age <15 mos No further doses needed: if previous dose given at age ≥15 mos	8 weeks (as final dose): this dose only necessary for children age 12 mos - 5 yrs who received 3 doses before age 12 mos	
PCV ⁷ : (6 wks)	4 weeks: if 1 st dose given at age <12 mos and current age <24 mos 8 weeks (as final dose): if 1 st dose given at age ≥ 12 mos or current age 24-59 mos No further doses needed: for healthy children if 1 st dose given at age ≥24 mos	4 weeks: if current age <12 mos 8 weeks (as final dose): if current age ≥12 mos No further doses needed: for healthy children if previous dose given at age ≥24 mos	8 weeks (as final dose): this dose only necessary for children age 12 mos - 5 yrs who received 3 doses before age 12 mos	

Table 2. Catch-up schedule for children age 7 through 18 years

Minimum Interval Between Doses		
Dose One to Dose Two	Dose Two to Dose Three	Dose Three to Booster Dose
Td: 4 weeks	Td: 6 months	Td ⁸ : 6 months: if 1 st dose given at age <12 mos and current age <11 yrs 5 years: if 1 st dose given at age ≥12 mos and 3 rd dose given at age <7 yrs and current age ≥11 yrs 10 years: if 3 rd dose given at age ≥7 yrs
IPV ⁹ : 4 weeks	IPV ⁹ : 4 weeks	IPV ⁹
HepB: 4 weeks	HepB: 8 weeks (and 16 weeks after first dose)	
MMR: 4 weeks		
Varicella ¹⁰ : 4 weeks		

1. **DTaP:** The fifth dose is not necessary if the fourth dose was given after the 4th birthday.
2. **IPV:** For children who received an all-IPV or all-OPV series, a fourth dose is not necessary if third dose was given at age ≥4 years. If both OPV and IPV were given as part of a series, a total of four doses should be given, regardless of the child's current age.
3. **HepB:** All children and adolescents who have not been immunized against hepatitis B should begin the hepatitis B vaccination series during any visit. Providers should make special efforts to immunize children who were born in, or whose parents were born in, areas of the world where hepatitis B virus infection is moderately or highly endemic.
4. **MMR:** The second dose of MMR is recommended routinely at age 4-6 years, but may be given earlier if desired.
5. **Hib:** Vaccine is not generally recommended for children age ≥5 years.
6. **Hib:** If current age <12 months and the first 2 doses were PRP-OMP (PedvaxHIB or ComVax), the third (and final) dose should be given at age 12-15 months and at least 8 weeks after the second dose.
7. **PCV:** Vaccine is not generally recommended for children age ≥5 years.
8. **Td:** For children age 7-10 years, the interval between the third and booster dose is determined by the age when the first dose was given. For adolescents age 11-18 years, the interval is determined by the age when the third dose was given.
9. **IPV:** Vaccine is not generally recommended for persons age ≥18 years.
10. **Varicella:** Give 2-dose series to all susceptible adolescents age ≥13 years.

Reporting Adverse Reactions

Report adverse reactions to vaccines through the federal Vaccine Adverse Event Reporting System. For information on reporting reactions following vaccines, please visit www.vaers.org or call the 24-hour national toll-free information line (800) 822-7967.

Disease Reporting

Report suspected cases of vaccine-preventable diseases to your state or local health department.

For additional information about vaccines, including precautions and contraindications for immunization and vaccine shortages, please visit the National Immunization Program Website at www.cdc.gov/nip or call the National Immunization Information Hotline at 800-232-2522 (English) or 800-232-0233 (Spanish).

Regulations Pertaining To Schools & Medications

Be aware that regulations are subject to change and those provided in this manual might not be current versions when you read them.

Florida Statutes

- Chapter 464, F.S. **The Nurse Practice Act.**
- s. 110.501, F.S. The Volunteer Statute.
- s. 381.0056, F.S. **School Health Services Program.**
- s. 381.059, F.S. Background screening requirements for school health services personnel.
- s. 1002.20, F.S. K-12 student and parent rights.
- s. 1002.22, F.S. Student records and reports; rights of parents and students; notification; penalty.
- s. 1003.22, F.S. **School-entry health examinations; immunization against communicable diseases; exemptions; duties of Department of Health.**
- s. 1006.062, F.S. **Administration of medication and provision of medical services by district board personnel.**

Florida Statutes are available online at www.leg.state.fl.us

Florida Administrative Code

- Chapter 64B9-14 Delegation to Unlicensed Assistive Personnel
- Florida Administrative Code is available online at www.fac.dos.state.fl.us*

Federal Laws

- 20 USC s. 1232g Family Educations Right to Privacy Act of 1974 (FERPA/Buckley Amendment)
- FERPA laws are available online at <http://www.cpsr.org/cpsr/privacy/ssn/ferpa.buckley.html>*
- 65 FR 82462 Health Insurance Portability and Accountability Act of 1996 (HIPAA)
- Available online at www.hhs.gov/ocr/hipaa*

When the school takes responsibility for medication use, they are liable and at risk for ensuring proper medication compliance, following the “5 rights” of medication safety. That means ensuring the right student receives the right medication at the right time in the right dose via the right route.

Regulations pertaining to the use of medication in schools will be different from state to state. Regulations take several forms. Statutes are laws that are passed by legislation. Rules are written by an agency, sometimes based on a statute, and address implementation and enforcement. Sometimes regulations direct that a policy be developed by the individual school district or individual school. In a court of law the “strictest law of the land” takes priority, usually meaning the most conservative or restrictive law. When developing school policy you are advised to check with the following sources to determine which regulations apply.

- State, County, Regional, or Local Agencies.
- State Department of Health.
- State Department of Education.
- State Attorneys General.
- State Board of Pharmacy.
- State Board of Nursing.
- Your institution’s legal counsel.

Generally speaking, regulations will direct requirements, standards, or policy in several areas for your school district.

- What requires an order or prescription from a licensed prescriber.
- Required scope of service.
- Required physical facilities and staffing.
- Required policies and procedures.
- What requires parent/guardian consent.
- Required documentation and records.
- Required quality assurance activities and reports.

The authors recommend that for the sake of consistency and accountability, school health guidelines be adopted on a state wide basis with input from the Department of Health, Department of Education, and other healthcare experts as necessary.

THE “5 RIGHTS” OF MEDICATION SAFETY

- Right Student
- Right Medication
- Right Time
- Right Dose
- Right Route



Chapter 464, F.S. The Nurse Practice Act

Selected Excerpts Pertaining to Medication

464.001 Short title.

464.002 Purpose.

464.003 Definitions.

464.012 Certification of advanced registered nurse practitioners; fees.

464.015 Titles and abbreviations; restrictions; penalty.

464.016 Violations and penalties.

464.001 Short title. —

This part may be cited as the “Nurse Practice Act.”

History.—ss. 1, 6, ch. 79-225; ss. 2, 3, ch. 81-318; ss. 1, 17, 18, ch. 86-284; s. 58, ch. 91-137; s. 5, ch. 91-156; s. 4, ch. 91-429; s. 119, ch. 2000-318.

464.002 Purpose. —

The sole legislative purpose in enacting this part is to ensure that every nurse practicing in this state meets minimum requirements for safe practice. It is the legislative intent that nurses who fall below minimum competency or who otherwise present a danger to the public shall be prohibited from practicing in this state.

History.—ss. 1, 6, ch. 79-225; ss. 2, 3, ch. 81-318; ss. 2, 17, 18, ch. 86-284; s. 58, ch. 91-137; s. 5, ch. 91-156; s. 4, ch. 91-429; s. 120, ch. 2000-318.

464.003 Definitions.— As used in this part:

- (1) “Department” means the Department of Health.
- (2) “Board” means the Board of Nursing.
- (3) (a) “Practice of professional nursing” means the performance of those acts requiring substantial specialized knowledge, judgment, and nursing skill based upon applied principles of psychological, biological, physical, and social sciences which shall include, but not be limited to:
 1. The observation, assessment, nursing diagnosis, planning, intervention, and evaluation of care; health teaching and counseling of the ill, injured, or infirm; and the promotion of wellness, maintenance of health, and prevention of illness of others.
 2. The administration of medications and treatments as prescribed or authorized by a duly licensed practitioner authorized by the laws

of this state to prescribe such medications and treatments.

3. The supervision and teaching of other personnel in the theory and performance of any of the above acts.

(b) “Practice of practical nursing” means the performance of selected acts, including the administration of treatments and medications, in the care of the ill, injured, or infirm and the promotion of wellness, maintenance of health, and prevention of illness of others under the direction of a registered nurse, a licensed physician, a licensed osteopathic physician, a licensed podiatric physician, or a licensed dentist.

The professional nurse and the practical nurse shall be responsible and accountable for making decisions that are based upon the individual’s educational preparation and experience in nursing.

(c) “Advanced or specialized nursing practice” means, in addition to the practice of professional nursing, the performance of advanced-level nursing acts approved by the board which, by virtue of post-basic specialized education, training, and experience, are proper to be performed by an advanced registered nurse practitioner. Within the context of advanced or specialized nursing practice, the advanced registered nurse practitioner may perform acts of nursing diagnosis and nursing treatment of alterations of the health status. The advanced registered nurse practitioner may also perform acts of medical diagnosis and treatment, prescription, and operation which are identified and approved by a joint committee composed of three members appointed by the Board of Nursing, two of whom shall be advanced registered nurse practitioners; three members appointed by the Board of Medicine, two of whom shall have had work experience with advanced registered nurse practitioners; and the secretary of the department or the secretary’s designee. Each committee member appointed by a board shall be appointed to a term of 4 years unless a shorter term is required to establish or maintain staggered terms. The Board of Nursing shall adopt rules authorizing the performance of any such acts approved by the joint committee. Unless otherwise specified by the joint committee, such acts shall be performed under the general supervision of a practitioner licensed under chapter 458, chapter 459, or chapter 466 within the framework of standing protocols which identify the medical acts to be performed and the conditions for their performance. The department may, by rule, require that a copy of the protocol be filed with the department along with the notice required by s. 458.348.

(d) “Nursing diagnosis” means the observation and evaluation of physical or mental conditions, behaviors, signs and symptoms of illness, and reactions to treatment and the determination as to whether such conditions, signs, symptoms, and reactions represent a deviation from normal.

- (e) “Nursing treatment” means the establishment and implementation of a nursing regimen for the care and comfort of individuals, the prevention of illness, and the education, restoration, and maintenance of health.
- (4) “Registered nurse” means any person licensed in this state to practice professional nursing.
- (5) “Licensed practical nurse” means any person licensed in this state to practice practical nursing.
- (6) “Advanced registered nurse practitioner” means any person licensed in this state to practice professional nursing and certified in advanced or specialized nursing practice.
- (7) “Approved program” means a nursing program conducted in a school, college, or university which is approved by the board pursuant to s. 464.019 for the education of nurses.

History.—ss. 1, 6, ch. 79-225; ss. 2, 3, ch. 81-318; ss. 3, 4, ch. 82-32; ss. 3, 17, 18, ch. 86-284; s. 18, ch. 88-392; s. 58, ch. 91-137; s. 5, ch. 91-156; s. 4, ch. 91-429; s. 121, ch. 94-218; s. 1, ch. 96-274; s. 76, ch. 97-264; s. 210, ch. 98-166; s. 121, ch. 2000-318.

464.012 Certification of advanced registered nurse practitioners; fees.—

- (1) Any nurse desiring to be certified as an advanced registered nurse practitioner shall apply to the department and submit proof that he or she holds a current license to practice professional nursing and that he or she meets one or more of the following requirements as determined by the board:
 - (a) Satisfactory completion of a formal post-basic educational program of at least one academic year, the primary purpose of which is to prepare nurses for advanced or specialized practice.
 - (b) Certification by an appropriate specialty board. Such certification shall be required for initial state certification and any recertification as a registered nurse anesthetist or nurse midwife. The board may by rule provide for provisional state certification of graduate nurse anesthetists and nurse midwives for a period of time determined to be appropriate for preparing for and passing the national certification examination.
 - (c) Graduation from a program leading to a master’s degree in a nursing clinical specialty area with preparation in specialized practitioner skills. For applicants graduating on or after October 1, 1998, graduation from a master’s degree program shall be required for initial certification as a nurse practitioner under paragraph (4)(c). For applicants graduating on or after October 1, 2001, graduation from a master’s degree program shall be required for initial certification as a registered nurse anesthetist under paragraph (4)(a).
- (2) The board shall provide by rule the appropriate requirements for advanced registered nurse practitioners in

the categories of certified registered nurse anesthetist, certified nurse midwife, and nurse practitioner.

- (3) An advanced registered nurse practitioner shall perform those functions authorized in this section within the framework of an established protocol. A practitioner currently licensed under chapter 458, chapter 459, or chapter 466 shall maintain supervision for directing the specific course of medical treatment. Within the established framework, an advanced registered nurse practitioner may:
 - (a) Monitor and alter drug therapies.
 - (b) Initiate appropriate therapies for certain conditions.
 - (c) Perform additional functions as may be determined by rule in accordance with s. 464.003(3)(c).
 - (d) Order diagnostic tests and physical and occupational therapy.
- (4) In addition to the general functions specified in subsection (3), an advanced registered nurse practitioner may perform the following acts within his or her specialty:
 - (a) The certified registered nurse anesthetist may, to the extent authorized by established protocol approved by the medical staff of the facility in which the anesthetic service is performed, perform any or all of the following:
 - 1. Determine the health status of the patient as it relates to the risk factors and to the anesthetic management of the patient through the performance of the general functions.
 - 2. Based on history, physical assessment, and supplemental laboratory results, determine, with the consent of the responsible physician, the appropriate type of anesthesia within the framework of the protocol.
 - 3. Order under the protocol preanesthetic medication.
 - 4. Perform under the protocol procedures commonly used to render the patient insensible to pain during the performance of surgical, obstetrical, therapeutic, or diagnostic clinical procedures. These procedures include ordering and administering regional, spinal, and general anesthesia; inhalation agents and techniques; intravenous agents and techniques; and techniques of hypnosis.
 - 5. Order or perform monitoring procedures indicated as pertinent to the anesthetic health care management of the patient.
 - 6. Support life functions during anesthesia health care, including induction and intubation procedures, the use of appropriate mechanical supportive devices, and the management of fluid, electrolyte, and blood component balances.

History.—ss. 1, 6, ch. 79-225; ss. 2, 3, ch. 81-318; s. 4, ch. 84-268; ss. 8, 17, 18, ch. 86-284; s. 58, ch. 91-137; s. 5, ch. 91-156; s. 4, ch. 91-429; s. 7, ch. 96-274; s. 1105, ch. 97-103; s. 80, ch. 97-264.

464.015 Titles and abbreviations; restrictions; penalty.—

- (1) Only persons who hold licenses to practice professional nursing in this state or who are performing nursing services pursuant to the exception set forth in s. 464.022(8) shall have the right to use the title “Registered Nurse” and the abbreviation “R.N.”
- (2) Only persons who hold licenses to practice as licensed practical nurses in this state or who are performing practical nursing services pursuant to the exception set forth in s. 464.022(8) shall have the right to use the title “Licensed Practical Nurse” and the abbreviation “L.P.N.”
- (3) Only persons who are graduates of approved programs or the equivalent may use the term “Graduate Nurse” and the abbreviation “G.N.,” pending the results of the first licensure examination for which they are eligible.
- (4) Only persons who are graduates of approved programs or the equivalent may use the term “Graduate Practical Nurse” and the abbreviation “G.P.N.,” pending the results of the first licensure examination for which they are eligible.
- (5) Only persons who hold valid certificates to practice as advanced registered nurse practitioners in this state shall have the right to use the title “Advanced Registered Nurse Practitioner” and the abbreviation “A.R.N.P.”
- (6) No person shall practice or advertise as, or assume the title of, registered nurse, licensed practical nurse, or advanced registered nurse practitioner or use the abbreviation “R.N.,” “L.P.N.,” or “A.R.N.P.” or take any other action that would lead the public to believe that person was certified as such or is performing nursing services pursuant to the exception set forth in s. 464.022(8), unless that person is licensed or certified to practice as such.
- (7) A violation of this section is a misdemeanor of the first degree, punishable as provided in s. 775.082 or s. 775.083.

History.—ss. 1, 6, ch. 79-225; ss. 2, 3, ch. 81-318; ss. 12, 17, 18, ch. 86-284; s. 58, ch. 91-137; s. 5, ch. 91-156; s. 4, ch. 91-429.

¹Note.—See s. 464.016(2)(a) as amended by s. 183, ch. 99-397, for addition of the term “Nurse” to the list of titles relating to nursing use of which without proper licensure or certification constitutes a misdemeanor.

464.016 Violations and penalties.—

- (1) Each of the following acts constitutes a felony of the third degree, punishable as provided in s. 775.082, s. 775.083, or s. 775.084:
 - (a) Practicing advanced or specialized, professional or practical nursing, as defined in this part, unless holding an active license or certificate to do so.
 - (b) Using or attempting to use a license or certificate which has been suspended or revoked.

7. Recognize and take appropriate corrective action for abnormal patient responses to anesthesia, adjunctive medication, or other forms of therapy.
 8. Recognize and treat a cardiac arrhythmia while the patient is under anesthetic care.
 9. Participate in management of the patient while in the postanesthesia recovery area, including ordering the administration of fluids and drugs.
 10. Place special peripheral and central venous and arterial lines for blood sampling and monitoring as appropriate.
- (b) The certified nurse midwife may, to the extent authorized by an established protocol which has been approved by the medical staff of the health care facility in which the midwifery services are performed, or approved by the nurse midwife’s physician backup when the delivery is performed in a patient’s home, perform any or all of the following:
1. Perform superficial minor surgical procedures.
 2. Manage the patient during labor and delivery to include amniotomy, episiotomy, and repair.
 3. Order, initiate, and perform appropriate anesthetic procedures.
 4. Perform postpartum examination.
 5. Order appropriate medications.
 6. Provide family-planning services and well-woman care.
 7. Manage the medical care of the normal obstetrical patient and the initial care of a newborn patient.
- (c) The nurse practitioner may perform any or all of the following acts within the framework of established protocol:
1. Manage selected medical problems.
 2. Order physical and occupational therapy.
 3. Initiate, monitor, or alter therapies for certain uncomplicated acute illnesses.
 4. Monitor and manage patients with stable chronic diseases.
 5. Establish behavioral problems and diagnosis and make treatment recommendations.
- (5) The board shall certify, and the department shall issue a certificate to, any nurse meeting the qualifications in this section. The board shall establish an application fee not to exceed \$100 and a biennial renewal fee not to exceed \$50. The board is authorized to adopt such other rules as are necessary to implement the provisions of this section.

- (c) Knowingly employing unlicensed persons in the practice of nursing.
 - (d) Obtaining or attempting to obtain a license or certificate under this part by misleading statements or knowing misrepresentation.
- (2) Each of the following acts constitutes a misdemeanor of the first degree, punishable as provided in s. 775.082 or s. 775.083:
- (a) Using the name or title “Nurse,” “Registered Nurse,” “Licensed Practical Nurse,” “Advanced Registered Nurse Practitioner,” or any other name or title which implies that a person was licensed or certified as same, unless such person is duly licensed or certified.
 - (a) Knowingly concealing information relating to violations of this part.

History.—ss. 1, 6, ch. 79-225; ss. 2, 3, ch. 81-318; ss. 13, 17, 18, ch. 86-284; s. 58, ch. 91-137; s. 5, ch. 91-156; s. 90, ch. 91-224; s. 4, ch. 91-429; s. 183, ch. 99-397; ss. 54, 124, ch. 2000-318.

s. 110.501-110.503, F.S. The Volunteer Statute

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- 110.501 Definitions.
- 110.502 Scope of act; status of volunteers.
- 110.503 Responsibilities of departments and agencies.
- 110.504 Volunteer benefits.

Public Officers, Employees, and Records

110.501 Definitions. — As used in this act:

- (1) “Volunteer” means any person who, of his or her own free will, provides goods or services, or conveys an interest in or otherwise consents to the use of real property pursuant to ss. 260.011-260.018, to any state department or agency, or nonprofit organization, with no monetary or material compensation. A person registered and serving in Older American Volunteer Programs authorized by the Domestic Volunteer Service Act of 1973, as amended (Pub. L. No. 93 - 113), shall also be defined as a volunteer and shall incur no civil liability as provided by s. 768.1355. A volunteer shall be eligible for payment of volunteer benefits as specified in Pub. L. No. 93 - 113, this section, and s. 430.204.
- (2) “Regular-service volunteer” means any person engaged in specific voluntary service activities on an ongoing or continuous basis.
- (3) “Occasional-service volunteer” means any person who offers to provide a one-time or occasional voluntary service.

- (4) “Material donor” means any person who provides funds, materials, employment, or opportunities for clients of state departments or agencies, without monetary or material compensation.

History.—s. 1, ch. 78-263; s. 24, ch. 79-190; s. 2, ch. 89-294; s. 671, ch. 95-147; s. 40, ch. 95-418; s. 47, ch. 96-399; s. 2, ch. 98-336.

Note.—Former s. 112.901.

110.502 Scope of act; status of volunteers. —

- (1) Every state department or state agency, through the head of the department or agency, secretary of the department, or executive director of the department, is authorized to recruit, train, and accept, without regard to requirements of the State Career Service System as set forth in part II of this chapter, the services of volunteers, including regular-service volunteers, occasional-service volunteers, or material donors, to assist in programs administered by the department or agency.
- (2) Volunteers recruited, trained, or accepted by any state department or agency shall not be subject to any provisions of law relating to state employment, to any collective bargaining agreement between the state and any employees’ association or union, or to any laws relating to hours of work, rates of compensation, leave time, and employee benefits, except those consistent with s. 110.504. However, all volunteers shall comply with applicable department or agency rules.
- (3) Every department or agency utilizing the services of volunteers is hereby authorized to provide such incidental reimbursement or benefit consistent with the provisions of s. 110.504, including transportation costs, lodging, and subsistence, recognition, and other accommodations as the department or agency deems necessary to assist, recognize, reward, or encourage volunteers in performing their functions. No department or agency shall expend or authorize an expenditure therefor in excess of the amount provided for to the department or agency by appropriation in any fiscal year.
- (4) Persons working with state agencies pursuant to this part shall be considered as unpaid independent volunteers and shall not be entitled to unemployment compensation.

History.—s. 2, ch. 78-263; s. 24, ch. 79-190; s. 48, ch. 96-399.

Note.—Former s. 112.902.

110.503 Responsibilities of departments and agencies. — Each department or agency utilizing the services of volunteers shall:

- (1) Take such actions as are necessary and appropriate to develop meaningful opportunities for volunteers involved in state-administered programs.
- (2) Comply with the uniform rules adopted by the Department of Management Services governing the recruitment, screening, training, responsibility, use, and supervision of volunteers.

- (3) Take such actions as are necessary to ensure that volunteers understand their duties and responsibilities.
- (4) Take such actions as are necessary and appropriate to ensure a receptive climate for citizen volunteers.
- (5) Provide for the recognition of volunteers who have offered continuous and outstanding service to state-administered programs. Each department or agency using the services of volunteers is authorized to incur expenditures not to exceed \$100 each plus applicable taxes for suitable framed certificates, plaques, or other tokens of recognition to honor, reward, or encourage volunteers for their service.
- (6) Recognize prior volunteer service as partial fulfillment of state employment requirements for training and experience pursuant to rules adopted by the Department of Management Services.

History.—s. 3, ch. 78-263; s. 24, ch. 79-190; s. 38, ch. 92-279; s. 55, ch. 92-326; s. 42, ch. 96-399; s. 13, ch. 99-399.

Note.—Former s. 112.903.

s. 381.0056, F.S. School Health Services Program

- (1) This section may be cited as the “School Health Services Act.”
- (2) The Legislature finds that health services conducted as a part of the total school health program should be carried out to appraise, protect, and promote the health of students. School health services supplement, rather than replace, parental responsibility and are designed to encourage parents to devote attention to child health, to discover health problems, and to encourage use of the services of their physicians, dentists, and community health agencies.
- (3) When used in or for purposes of this section:
 - (a) “Emergency health needs” means onsite management and aid for illness or injury pending the student’s return to the classroom or release to a parent, guardian, designated friend, or designated health care provider.
 - (b) “Entity” or “health care entity” means a unit of local government or a political subdivision of the state; a hospital licensed under chapter 395; a health maintenance organization certified under chapter 641; a health insurer authorized under the Florida Insurance Code; a community health center; a migrant health center; a federally qualified health center; an organization that meets the requirements for nonprofit status under s. 501(c)(3) of the Internal Revenue Code; a private industry or business; or a philanthropic foundation that agrees to participate in a public-private partnership with a county health department, local school district, or school in the delivery of school health services, and agrees to the terms and conditions for the delivery of such services as required by this section and as documented in the local school health services plan.
- (c) “Invasive screening” means any screening procedure in which the skin or any body orifice is penetrated.
- (d) “Physical examination” means a thorough evaluation of the health status of an individual.
- (e) “School health services plan” means the document that describes the services to be provided, the responsibility for provision of the services, the anticipated expenditures to provide the services, and evidence of cooperative planning by local school districts and county health departments.
- (f) “Screening” means presumptive identification of unknown or unrecognized diseases or defects by the application of tests that can be given with ease and rapidity to apparently healthy persons.
- (4) The Department of Health shall have the responsibility, in cooperation with the Department of Education, to supervise the administration of the school health services program and perform periodic program reviews. However, the principal of each school shall have immediate supervisory authority over the health personnel working in the school.
- (5) Each county health department shall develop, jointly with the district school board and the local school health advisory committee, a school health services plan; and the plan shall include, at a minimum, provisions for:
 - (a) Health appraisal;
 - (b) Records review;
 - (c) Nurse assessment;
 - (d) Nutrition assessment;
 - (e) A preventive dental program;
 - (f) Vision screening;
 - (g) Hearing screening;
 - (h) Scoliosis screening;
 - (i) Growth and development screening;
 - (j) Health counseling;
 - (k) Referral and follow-up of suspected or confirmed health problems by the local county health department;
 - (l) Meeting emergency health needs in each school;
 - (m) County health department personnel to assist school personnel in health education curriculum development;

- (n) Referral of students to appropriate health treatment, in cooperation with the private health community whenever possible;
 - (o) Consultation with a student's parent or guardian regarding the need for health attention by the family physician, dentist, or other specialist when definitive diagnosis or treatment is indicated;
 - (p) Maintenance of records on incidents of health problems, corrective measures taken, and such other information as may be needed to plan and evaluate health programs; except, however, that provisions in the plan for maintenance of health records of individual students must be in accordance with s. 228.093;
 - (q) Health information which will be provided by the school health nurses, when necessary, regarding the placement of students in exceptional student programs and the reevaluation at periodic intervals of students placed in such programs; and
 - (r) Notification to the local nonpublic schools of the school health services program and the opportunity for representatives of the local nonpublic schools to participate in the development of the cooperative health services plan.
- (6) A nonpublic school may request to participate in the school health services program. A nonpublic school voluntarily participating in the school health services program shall:
- (a) Cooperate with the county health department and district school board in the development of the cooperative health services plan;
 - (b) Make available adequate physical facilities for health services;
 - (c) Provide inservice health training to school personnel;
 - (d) Cooperate with public health personnel in the implementation of the school health services plan;
 - (e) Be subject to health service program reviews by the Department of Health and the Department of Education; and
 - (f) At the beginning of each school year, inform parents or guardians in writing that their children who are students in the school will receive specified health services as provided for in the district health services plan. A student will be exempt from any of these services if his or her parent or guardian requests such exemption in writing. This paragraph shall not be construed to authorize invasive screening; if there is a need for such procedure, the consent of the student's parent or guardian shall be obtained in writing prior to performing the screening. However, the laws and rules relating to contagious or communicable diseases and sanitary matters shall not be violated.
- (7) The district school board shall:
- (a) Include health services and health education as part of the comprehensive plan for the school district;
 - (b) Provide inservice health training for school personnel;
 - (c) Make available adequate physical facilities for health services; and
 - (d) At the beginning of each school year, inform parents or guardians in writing that their children who are students in the district schools will receive specified health services as provided for in the district health services plan. A student will be exempt from any of these services if his or her parent or guardian requests such exemption in writing. This paragraph shall not be construed to authorize invasive screening; if there is a need for such procedure, the consent of the student's parent or guardian shall be obtained in writing prior to performing the screening. However, the laws and rules relating to contagious or communicable diseases and sanitary matters shall not be violated.
- (8) The Department of Health, in cooperation with the Department of Education, may adopt rules necessary to implement this section. The rules may include standards and requirements for developing school health services plans, conducting school health screening, meeting emergency health needs, maintaining school health records, and coordinating with education programs for exceptional students.
- (9) In the absence of negligence, no person shall be liable for any injury caused by an act or omission in the administration of school health services.
- (10) Any health care entity that provides school health services under contract with the department pursuant to a school health services plan developed under this section, and as part of a school nurse services public-private partnership, is deemed to be a corporation acting primarily as an instrumentality of the state solely for the purpose of limiting liability pursuant to s. 768.28(5). The limitations on tort actions contained in s. 768.28(5) shall apply to any action against the entity with respect to the provision of school health services, if the entity is acting within the scope of and pursuant to guidelines established in the contract or by rule of the department. The contract must require the entity, or the partnership on behalf of the entity, to obtain general liability insurance coverage, with any additional endorsement necessary to insure the entity for liability assumed by its contract with the department. The Legislature intends that insurance be purchased by entities, or by partnerships on behalf of the entity, to cover all liability claims, and under no circumstances shall the state or the department be responsible for payment of any claims or defense costs for claims brought against the entity or its subcontractor for services performed under the contract with the

department. This subsection does not preclude consideration by the Legislature for payment by the state of any claims bill involving an entity contracting with the department pursuant to this section.

- (11) School health programs funded by health care districts or entities defined in subsection (3) must be supplementary to and consistent with the requirements of this section and ss. 381.0057 and 381.0059.

History.—ss. 1, 2, 3, 4, 5, 6, 7, 9, ch. 74-356; s. 1, ch. 77-174; s. 2, ch. 78-245; s. 15, ch. 79-288; s. 1, ch. 81-18; s. 21, ch. 84-317; s. 50, ch. 85-81; s. 1, ch. 90-344; s. 812, ch. 95-148; s. 101, ch. 97-101; s. 48, ch. 97-237; s. 28, ch. 99-5; s. 1, ch. 99-214; s. 6, ch. 2000-242; s. 5, ch. 2001-53.

Note.—Former s. 402.32.

s. 381.0059, F.S.

Background screening requirements for school health services personnel

- (1) Pursuant to the provisions of chapter 435, any person who provides services under a school health services plan pursuant to s. 381.0056 must meet level 2 screening requirements as described in s. 435.04. A person may satisfy the requirements of this subsection by submitting proof of compliance with the requirements of level 2 screening conducted within 12 months before the date that person initially provides services under a school health services plan.
- (2) A person may provide services under a school health services plan pursuant to s. 381.0056 prior to the completion of level 2 screening. However, pending the results of the screening, such person may not be alone with a minor.
- (3) As provided in s. 435.07, the Department of Health may grant an exemption from disqualification to provide services under a school health services plan pursuant to s. 381.0056.
- (4) Under penalty of perjury, each person who provides services under a school health plan pursuant to s. 381.0056 must attest to meeting the level 2 screening requirements for participation under the plan and agree to inform his or her employer immediately if convicted of any disqualifying offense while providing services under a plan.
- (5) As used in this section, the term “person who provides services under a school health services plan” includes unpaid volunteers, except for an unpaid volunteer who lectures students in group settings on health education topics.

History.—s. 2, ch. 99-214; s. 58, ch. 2000-349; s. 10, ch. 2000-367; s. 6, ch. 2001-53.

s. 1002.20, F.S.

K-12 Student and parent rights.

K-12 students and their parents are afforded numerous statutory rights including, but not limited to, the following:

- (1) **SYSTEM OF EDUCATION.**—In accordance with s. 1, Art. IX of the State Constitution, all K-12 public school students are entitled to a uniform, safe, secure, efficient, and high quality system of education, one that allows students the opportunity to obtain a high quality education. Parents are responsible to ready their children for school; however, the State of Florida cannot be the guarantor of each individual student's success.
- (2) **ATTENDANCE.**—
 - (a) **Compulsory school attendance.**—The compulsory school attendance laws apply to all children between the ages of 6 and 16 years, as provided in s. 1003.21(1) and (2)(a), and, in accordance with the provisions of s. 1003.21(1) and (2)(a):
 1. A student who attains the age of 16 years during the school year has the right to file a formal declaration of intent to terminate school enrollment if the declaration is signed by the parent. The parent has the right to be notified by the school district of the district's receipt of the student's declaration of intent to terminate school enrollment.
 2. Students who become or have become married or who are pregnant and parenting have the right to attend school and receive the same or equivalent educational instruction as other students.
 - (b) **Regular school attendance.**—Parents of students who have attained the age of 6 years by February 1 of any school year but who have not attained the age of 16 years must comply with the compulsory school attendance laws. Parents have the option to comply with the school attendance laws by attendance of the student in a public school; a parochial, religious, or denominational school; a private school; a home education program; or a private tutoring program, in accordance with the provisions of s. 1003.01(14).
 - (c) **Absence for religious purposes.**—A parent of a public school student may request and be granted permission for absence of the student from school for religious instruction or religious holidays, in accordance with the provisions of s. 1003.21(2)(b).
 - (d) **Dropout prevention and academic intervention programs.**—The parent of a public school student has the right to receive written notice by certified mail prior to placement of the student in a dropout

prevention and academic intervention program and shall be notified in writing and entitled to an administrative review of any action by school personnel relating to the student's placement, in accordance with the provisions of s. 1003.53(5).

(3) HEALTH ISSUES.—

- (a) School-entry health examinations.—The parent of any child attending a public or private school shall be exempt from the requirement of a health examination upon written request stating objections on religious grounds in accordance with the provisions of s. 1003.22(1) and (2).
- (b) Immunizations.—The parent of any child attending a public or private school shall be exempt from the school immunization requirements upon meeting any of the exemptions in accordance with the provisions of s. 1003.22(5).
- (c) Biological experiments.—Parents may request that their child be excused from performing surgery or dissection in biological science classes in accordance with the provisions of s. 1003.47.
- (d) Reproductive health and disease education.—A public school student whose parent makes written request to the school principal shall be exempted from the teaching of reproductive health or any disease, including HIV/AIDS, in accordance with the provisions of s. 1003.42(3).
- (e) Contraceptive services to public school students.—In accordance with the provisions of s. 1006.062(7), students may not be referred to or offered contraceptive services at school facilities without the parent's consent.
- (f) Career and technical education courses involving hazardous substances.—High school students must be given plano safety glasses or devices in career and technical education courses involving the use of hazardous substances likely to cause eye injury, in accordance with the provisions of s. 1006.65.
- (g) Substance abuse reports.—The parent of a public school student must be timely notified of any verified report of a substance abuse violation by the student, in accordance with the provisions of s. 1006.09(8).
- (h) Inhaler use.—Asthmatic students whose parent and physician provide their approval to the school principal may carry a metered dose inhaler on their person while in school. The school principal shall be provided a copy of the parent's and physician's approval.

History.—s. 92, ch. 2002-387.

s. 1002.22, F.S.

Student records and reports; rights of parents and students; notification; penalty.

- (1) PURPOSE.—The purpose of this section is to protect the rights of students and their parents with respect to student records and reports as created, maintained, and used by public educational institutions in the state. The intent of the Legislature is that students and their parents shall have rights of access, rights of challenge, and rights of privacy with respect to such records and reports, and that rules shall be available for the exercise of these rights.
- (2) DEFINITIONS.—As used in this section:
 - (a) “Chief executive officer” means that person, whether elected or appointed, who is responsible for the management and administration of any public educational body or unit, or the chief executive officer’s designee for student records; that is, the district school superintendent, the director of an area technical center, the president of a public postsecondary educational institution, or their designees.
 - (b) “Directory information” includes the student’s name, address, telephone number if it is a listed number, date and place of birth, major field of study, participation in officially recognized activities and sports, weight and height of members of athletic teams, dates of attendance, degrees and awards received, and the most recent previous educational agency or institution attended by the student.
 - (c) “Records” and “reports” mean official records, files, and data directly related to students that are created, maintained, and used by public educational institutions, including all material that is incorporated into each student’s cumulative record folder and intended for school use or to be available to parties outside the school or school system for legitimate educational or research purposes. Materials that shall be considered as part of a student’s record include, but are not necessarily limited to: identifying data, including a student's social security number; academic work completed; level of achievement records, including grades and standardized achievement test scores; attendance data; scores on standardized intelligence, aptitude, and psychological tests; interest inventory results; health data; family background information; teacher or counselor ratings and observations; verified reports of serious or recurrent behavior patterns; and any other evidence, knowledge, or information recorded in any medium, including, but not limited to, handwriting, typewriting, print,

magnetic tapes, film, microfilm, and microfiche, and maintained and used by an educational agency or institution or by a person acting for such agency or institution. However, the terms “records” and “reports” do not include:

1. Records of instructional, supervisory, and administrative personnel, and educational personnel ancillary to those persons, that are kept in the sole possession of the maker of the record and are not accessible or revealed to any other person except a substitute for any of such persons. An example of records of this type is instructor’s grade books.
 2. Records of law enforcement units of the institution that are maintained solely for law enforcement purposes and that are not available to persons other than officials of the institution or law enforcement officials of the same jurisdiction in the exercise of that jurisdiction.
 3. Records made and maintained by the institution in the normal course of business that relate exclusively to a student in his or her capacity as an employee and that are not available for use for any other purpose.
 4. Records created or maintained by a physician, psychiatrist, psychologist, or other recognized professional or paraprofessional acting in his or her professional or paraprofessional capacity, or assisting in that capacity, that are created, maintained, or used only in connection with the provision of treatment to the student and that are not available to anyone other than persons providing such treatment. However, such records shall be open to a physician or other appropriate professional of the student's choice.
 5. Directory information as defined in this section.
 6. Other information, files, or data that do not permit the personal identification of a student.
 7. Letters or statements of recommendation or evaluation that were confidential under Florida law and that were received and made a part of the student’s educational records prior to July 1, 1977.
 8. Copies of the student's fingerprints. No public educational institution shall maintain any report or record relative to a student that includes a copy of the student’s fingerprints.
- (d) “Student” means any child or adult who is enrolled or who has been enrolled in any instructional program or activity conducted under the authority and direction of an institution comprising a part of the state system of public education and with respect to whom an educational institution maintains educational records and reports or personally identifiable information, but does not include a

person who has not been in attendance as an enrollee at such institution.

- (3) RIGHTS OF PARENT OR STUDENT.—The parent of any student who attends or has attended any public school, area technical center, or public postsecondary educational institution shall have the following rights with respect to any records or reports created, maintained, and used by any public educational institution in the state. However, whenever a student has attained 18 years of age, or is attending a postsecondary educational institution, the permission or consent required of, and the rights accorded to, the parents of the student shall thereafter be required of and accorded to the student only, unless the student is a dependent student of such parents as defined in 26 U.S.C. s. 152 (s. 152 of the Internal Revenue Code of 1954). The State Board of Education shall adopt rules whereby parents or students may exercise these rights:
- (a) Right of access.—
1. Such parent or student shall have the right, upon request directed to the appropriate school official, to be provided with a list of the types of records and reports, directly related to students, as maintained by the institution that the student attends or has attended.
 2. Such parent or student shall have the right, upon request, to be shown any record or report relating to such student maintained by any public educational institution. When the record or report includes information on more than one student, the parent or student shall be entitled to receive, or be informed of, only that part of the record or report that pertains to the student who is the subject of the request. Upon a reasonable request therefor, the institution shall furnish such parent or student with an explanation or interpretation of any such record or report.
 3. Copies of any list, record, or report requested under the provisions of this paragraph shall be furnished to the parent or student upon request.
 4. The State Board of Education shall adopt rules to be followed by all public educational institutions in granting requests for lists, or for access to reports and records or for copies or explanations thereof under this paragraph. However, access to any report or record requested under the provisions of subparagraph 2. shall be granted within 30 days after receipt of such request by the institution. Fees may be charged for furnishing any copies of reports or records requested under subparagraph 3., but such fees shall not exceed the actual cost to the institution of producing such copies.

(b) Right of waiver of access to confidential letters or statements.--A parent or student shall have the right to waive the right of access to letters or statements of recommendation or evaluation, except that such waiver shall apply to recommendations or evaluations only if:

1. The parent or student is, upon request, notified of the names of all persons submitting confidential letters or statements.
2. Such recommendations or evaluations are used solely for the purpose for which they were specifically intended.

Such waivers may not be required as a condition for admission to, receipt of financial aid from, or receipt of any other services or benefits from, any public agency or public educational institution in this state.

(c) Right to challenge and hearing.--A parent or student shall have the right to challenge the content of any record or report to which such person is granted access under paragraph (a), in order to ensure that the record or report is not inaccurate, misleading, or otherwise in violation of the privacy or other rights of the student and to provide an opportunity for the correction, deletion, or expunction of any inaccurate, misleading, or otherwise inappropriate data or material contained therein. Any challenge arising under the provisions of this paragraph may be settled through informal meetings or discussions between the parent or student and appropriate officials of the educational institution. If the parties at such a meeting agree to make corrections, to make deletions, to expunge material, or to add a statement of explanation or rebuttal to the file, such agreement shall be reduced to writing and signed by the parties; and the appropriate school officials shall take the necessary actions to implement the agreement. If the parties cannot reach an agreement, upon the request of either party, a hearing shall be held on such challenge under rules adopted by the State Board of Education. Upon the request of the parent or student, the hearing shall be exempt from the requirements of s. 286.011. Such rules shall include at least the following provisions:

1. The hearing shall be conducted within a reasonable period of time following the request for the hearing.
2. The hearing shall be conducted, and the decision rendered, by an official of the educational institution or other party who does not have a direct interest in the outcome of the hearing.
3. The parent or student shall be afforded a full and fair opportunity to present evidence relevant to the issues raised under this paragraph.

4. The decision shall be rendered in writing within a reasonable period of time after the conclusion of the hearing.

5. The appropriate school officials shall take the necessary actions to implement the decision.

(d) Right of privacy.--Every student shall have a right of privacy with respect to the educational records kept on him or her. Personally identifiable records or reports of a student, and any personal information contained therein, are confidential and exempt from the provisions of s. 119.07(1). No state or local educational agency, board, public school, technical center, or public postsecondary educational institution shall permit the release of such records, reports, or information without the written consent of the student's parent, or of the student himself or herself if he or she is qualified as provided in this subsection, to any individual, agency, or organization. However, personally identifiable records or reports of a student may be released to the following persons or organizations without the consent of the student or the student's parent:

1. Officials of schools, school systems, technical centers, or public postsecondary educational institutions in which the student seeks or intends to enroll; and a copy of such records or reports shall be furnished to the parent or student upon request.
2. Other school officials, including teachers within the educational institution or agency, who have legitimate educational interests in the information contained in the records.
3. The United States Secretary of Education, the Director of the National Institute of Education, the Assistant Secretary for Education, the Comptroller General of the United States, or state or local educational authorities who are authorized to receive such information subject to the conditions set forth in applicable federal statutes and regulations of the United States Department of Education, or in applicable state statutes and rules of the State Board of Education.
4. Other school officials, in connection with a student's application for or receipt of financial aid.
5. Individuals or organizations conducting studies for or on behalf of an institution or a board of education for the purpose of developing, validating, or administering predictive tests, administering student aid programs, or improving instruction, if such studies are conducted in such a manner as will not permit the personal identification of students and their parents by persons other than representatives of such organizations and if such information will be

destroyed when no longer needed for the purpose of conducting such studies.

6. Accrediting organizations, in order to carry out their accrediting functions.
7. School readiness coalitions and the Florida Partnership for School Readiness in order to carry out their assigned duties.
8. For use as evidence in student expulsion hearings conducted by a district school board pursuant to the provisions of chapter 120.
9. Appropriate parties in connection with an emergency, if knowledge of the information in the student's educational records is necessary to protect the health or safety of the student or other individuals.
10. The Auditor General and the Office of Program Policy Analysis and Government Accountability in connection with their official functions; however, except when the collection of personally identifiable information is specifically authorized by law, any data collected by the Auditor General and the Office of Program Policy Analysis and Government Accountability is confidential and exempt from the provisions of s. 119.07(1) and shall be protected in such a way as will not permit the personal identification of students and their parents by other than the Auditor General, the Office of Program Policy Analysis and Government Accountability, and their staff, and such personally identifiable data shall be destroyed when no longer needed for the Auditor General's and the Office of Program Policy Analysis and Government Accountability's official use.
- 11.a. A court of competent jurisdiction in compliance with an order of that court or the attorney of record pursuant to a lawfully issued subpoena, upon the condition that the student and the student's parent are notified of the order or subpoena in advance of compliance therewith by the educational institution or agency.
- b. A person or entity pursuant to a court of competent jurisdiction in compliance with an order of that court or the attorney of record pursuant to a lawfully issued subpoena, upon the condition that the student, or his or her parent if the student is either a minor and not attending a postsecondary educational institution or a dependent of such parent as defined in 26 U.S.C. s. 152 (s. 152 of the Internal Revenue Code of 1954), is notified of the order or subpoena in advance of compliance therewith by the educational institution or agency.
12. Credit bureaus, in connection with an agreement for financial aid that the student has executed, provided that such information may

be disclosed only to the extent necessary to enforce the terms or conditions of the financial aid agreement. Credit bureaus shall not release any information obtained pursuant to this paragraph to any person.

13. Parties to an interagency agreement among the Department of Juvenile Justice, school and law enforcement authorities, and other signatory agencies for the purpose of reducing juvenile crime and especially motor vehicle theft by promoting cooperation and collaboration, and the sharing of appropriate information in a joint effort to improve school safety, to reduce truancy and in-school and out-of-school suspensions, and to support alternatives to in-school and out-of-school suspensions and expulsions that provide structured and well-supervised educational programs supplemented by a coordinated overlay of other appropriate services designed to correct behaviors that lead to truancy, suspensions, and expulsions, and that support students in successfully completing their education. Information provided in furtherance of such interagency agreements is intended solely for use in determining the appropriate programs and services for each juvenile or the juvenile's family, or for coordinating the delivery of such programs and services, and as such is inadmissible in any court proceedings prior to a dispositional hearing unless written consent is provided by a parent or other responsible adult on behalf of the juvenile.

This paragraph does not prohibit any educational institution from publishing and releasing to the general public directory information relating to a student if the institution elects to do so. However, no educational institution shall release, to any individual, agency, or organization that is not listed in subparagraphs 1-13., directory information relating to the student body in general or a portion thereof unless it is normally published for the purpose of release to the public in general. Any educational institution making directory information public shall give public notice of the categories of information that it has designated as directory information with respect to all students attending the institution and shall allow a reasonable period of time after such notice has been given for a parent or student to inform the institution in writing that any or all of the information designated should not be released.

- (4) NOTIFICATION.—Every parent and student entitled to rights relating to student records and reports under the provisions of subsection (3) shall be notified annually, in writing, of such rights and that the institution has a policy of supporting the law; the types of information

and data generally entered in the student records as maintained by the institution; and the procedures to be followed in order to exercise such rights. The notification shall be general in form and in a manner to be determined by the State Board of Education and may be incorporated with other printed materials distributed to students, such as being printed on the back of school assignment forms or report cards for students attending kindergarten or grades 1 through 12 in the public school system and being printed in college catalogs or in other program announcement bulletins for students attending postsecondary educational institutions.

- (5) **PENALTY.**—In the event that any public school official or employee, district school board official or employee, technical center official or employee, or public postsecondary educational institution official or employee refuses to comply with any of the provisions of this section, the aggrieved parent or student shall have an immediate right to bring an action in the circuit court to enforce the violated right by injunction. Any aggrieved parent or student who brings such an action and whose rights are vindicated may be awarded attorney's fees and court costs.
- (6) **APPLICABILITY TO RECORDS OF DEFUNCT INSTITUTIONS.**—The provisions of this section also apply to student records that any nonpublic educational institution that is no longer operating has deposited with the district school superintendent in the county where the nonpublic educational institution was located.

History.—s. 94, ch. 2002-387.

s. 1003.22, F.S.

School-entry health examinations; immunization against communicable diseases; exemptions; duties of Department of Health.

- (1) Each district school board and the governing authority of each private school shall require that each child who is entitled to admittance to kindergarten, or is entitled to any other initial entrance into a public or private school in this state, present a certification of a school-entry health examination performed within 1 year prior to enrollment in school. Each district school board, and the governing authority of each private school, may establish a policy that permits a student up to 30 school days to present a certification of a school-entry health examination. A homeless child, as defined in s. 1003.01, shall be given a temporary exemption for 30 school days. Any district school board that establishes such a policy shall include provisions in its local school health services plan to assist students in obtaining the health examinations. However, any child shall be exempt from the requirement of a health examination upon written request of the parent of the child stating objections to the examination on religious grounds.
- (2) The State Board of Education, subject to the concurrence of the Department of Health, shall adopt rules to govern medical examinations and immunizations performed under this section.
- (3) The Department of Health may adopt rules necessary to administer and enforce this section. The Department of Health, after consultation with the Department of Education, shall adopt rules governing the immunization of children against, the testing for, and the control of preventable communicable diseases. The rules must include procedures for exempting a child from immunization requirements. Immunizations shall be required for poliomyelitis, diphtheria, rubeola, rubella, pertussis, mumps, tetanus, and other communicable diseases as determined by rules of the Department of Health. The manner and frequency of administration of the immunization or testing shall conform to recognized standards of medical practice. The Department of Health shall supervise and secure the enforcement of the required immunization. Immunizations required by this section shall be available at no cost from the county health departments.
- (4) Each district school board and the governing authority of each private school shall establish and enforce as policy that, prior to admittance to or attendance in a public or private school, grades kindergarten through 12, each

child present or have on file with the school a certification of immunization for the prevention of those communicable diseases for which immunization is required by the Department of Health and further shall provide for appropriate screening of its students for scoliosis at the proper age. Such certification shall be made on forms approved and provided by the Department of Health and shall become a part of each student's permanent record, to be transferred when the student transfers, is promoted, or changes schools. The transfer of such immunization certification by Florida public schools shall be accomplished using the Florida Automated System for Transferring Education Records and shall be deemed to meet the requirements of this section.

- (5) The provisions of this section shall not apply if:
- (a) The parent of the child objects in writing that the administration of immunizing agents conflicts with his or her religious tenets or practices;
 - (b) A physician licensed under the provisions of chapter 458 or chapter 459 certifies in writing, on a form approved and provided by the Department of Health, that the child should be permanently exempt from the required immunization for medical reasons stated in writing, based upon valid clinical reasoning or evidence, demonstrating the need for the permanent exemption;
 - (c) A physician licensed under the provisions of chapter 458, chapter 459, or chapter 460 certifies in writing, on a form approved and provided by the Department of Health, that the child has received as many immunizations as are medically indicated at the time and is in the process of completing necessary immunizations;
 - (d) The Department of Health determines that, according to recognized standards of medical practice, any required immunization is unnecessary or hazardous; or
 - (e) An authorized school official issues a temporary exemption, for a period not to exceed 30 school days, to permit a student who transfers into a new county to attend class until his or her records can be obtained. A homeless child, as defined in s. 1003.01, shall be given a temporary exemption for 30 school days. The public school health nurse or authorized private school official is responsible for followup of each such student until proper documentation or immunizations are obtained. An exemption for 30 days may be issued for a student who enters a juvenile justice program to permit the student to attend class until his or her records can be obtained or until the immunizations can be obtained. An authorized juvenile justice official is responsible for followup of each student who enters a juvenile justice program until proper documentation or immunizations are obtained.

(6)(a) No person licensed by this state as a physician or nurse shall be liable for any injury caused by his or her action or failure to act in the administration of a vaccine or other immunizing agent pursuant to the provisions of this section if the person acts as a reasonably prudent person with similar professional training would have acted under the same or similar circumstances.

(b) No member of a district school board, or any of its employees, or member of a governing board of a private school, or any of its employees, shall be liable for any injury caused by the administration of a vaccine to any student who is required to be so immunized or for a failure to diagnose scoliosis pursuant to the provisions of this section.

(7) The parents of any child admitted to or in attendance at a Florida public or private school, grades kindergarten through 12, are responsible for assuring that the child is in compliance with the provisions of this section.

(8) Each public school, including public kindergarten, and each private school, including private kindergarten, shall be required to provide to the county health department director or administrator annual reports of compliance with the provisions of this section. Reports shall be completed on forms provided by the Department of Health for each kindergarten, and other grade as specified; and the reports shall include the status of children who were admitted at the beginning of the school year. After consultation with the Department of Education, the Department of Health shall establish by administrative rule the dates for submission of these reports, the grades for which the reports shall be required, and the forms to be used.

(9) The presence of any of the communicable diseases for which immunization is required by the Department of Health in a Florida public or private school shall permit the county health department director or administrator or the State Health Officer to declare a communicable disease emergency. The declaration of such emergency shall mandate that all students in attendance in the school who are not in compliance with the provisions of this section be identified by the district school board or by the governing authority of the private school; and the school health and immunization records of such children shall be made available to the county health department director or administrator. Those children identified as not being immunized against the disease for which the emergency has been declared shall be temporarily excluded from school by the district school board, or the governing authority of the private school, until such time as is specified by the county health department director or administrator.

(10) Each district school board and the governing authority of each private school shall:

(a) Refuse admittance to any child otherwise entitled to admittance to kindergarten, or any other initial entrance into a Florida public or private school,

who is not in compliance with the provisions of subsection (4).

- (b) Temporarily exclude from attendance any student who is not in compliance with the provisions of subsection (4).

- (11) The provisions of this section do not apply to those persons admitted to or attending adult education classes unless the adult students are under 21 years of age.

History.—s. 117, ch. 2002-387.

s. 1006.062, F.S.

Administration of medication and provision of medical services by district school board personnel. (Florida School Code effective January 7, 2003)

- (1) Notwithstanding the provisions of the Nurse Practice Act, part I of chapter 464, district school board personnel may assist students in the administration of prescription medication when the following conditions have been met:
 - (a) Each district school board shall include in its approved school health services plan a procedure to provide training, by a registered nurse, a licensed practical nurse, a physician licensed pursuant to chapter 458 or chapter 459, or a physician assistant licensed pursuant to chapter 458 or chapter 459, to the school personnel designated by the school principal to assist students in the administration of prescribed medication. Such training may be provided in collaboration with other school districts, through contract with an education consortium, or by any other arrangement consistent with the intent of this subsection.
 - (b) Each district school board shall adopt policies and procedures governing the administration of prescription medication by district school board personnel. The policies and procedures shall include, but not be limited to, the following provisions:
 - 1. For each prescribed medication, the student's parent shall provide to the school principal a written statement which grants to the school principal or the principal's designee permission to assist in the administration of such medication and which explains the necessity for the medication to be provided during the school day, including any occasion when the student is away from school property on official school business. The school principal or the principal's trained designee shall assist the student in the administration of the medication.

- 2. Each prescribed medication to be administered by district school board personnel shall be received, counted, and stored in its original container. When the medication is not in use, it shall be stored in its original container in a secure fashion under lock and key in a location designated by the school principal.

- (2) There shall be no liability for civil damages as a result of the administration of the medication when the person administering the medication acts as an ordinarily reasonable prudent person would have acted under the same or similar circumstances.
- (3) Nonmedical district school board personnel shall not be allowed to perform invasive medical services that require special medical knowledge, nursing judgment, and nursing assessment, including, but not limited to:
 - (a) Sterile catheterization.
 - (b) Nasogastric tube feeding.
 - (c) Cleaning and maintaining a tracheostomy and deep suctioning of a tracheostomy.
- (4) Nonmedical assistive personnel shall be allowed to perform health-related services upon successful completion of child-specific training by a registered nurse or advanced registered nurse practitioner licensed under chapter 464, a physician licensed pursuant to chapter 458 or chapter 459, or a physician assistant licensed pursuant to chapter 458 or chapter 459. All procedures shall be monitored periodically by a nurse, advanced registered nurse practitioner, physician assistant, or physician, including, but not limited to:
 - (a) Intermittent clean catheterization.
 - (b) Gastrostomy tube feeding.
 - (c) Monitoring blood glucose.
 - (d) Administering emergency injectable medication.
- (5) For all other invasive medical services not listed in this subsection, a registered nurse or advanced registered nurse practitioner licensed under chapter 464, a physician licensed pursuant to chapter 458 or chapter 459, or a physician assistant licensed pursuant to chapter 458 or chapter 459 shall determine if nonmedical district school board personnel shall be allowed to perform such service.
- (6) Each district school board shall establish emergency procedures in accordance with s. 381.0056(5) for life-threatening emergencies.
- (7) District school board personnel shall not refer students to or offer students at school facilities contraceptive services without the consent of a parent or legal guardian. To the extent that this paragraph conflicts with any provision of chapter 381, the provisions of chapter 381 control.

History.—s. 274, ch. 2002-387.

Chapter 64B9-14

Delegation To Unlicensed Assistive Personnel

www.fac.dos.state.fl.us

64B9-14.001 Definitions.

64B9-14.002 Delegation of Tasks or Activities.

64B9-14.003 Delegation of Tasks Prohibited.

64B9-14.001 Definitions.

As used in this Chapter, the following mean:

- (1) “Unlicensed assistive personnel” (UAP) are persons who do not hold licensure from the Division of Health Quality Assurance of the Department of Health but who have been assigned to function in an assistive role to registered nurses or licensed practical nurses in the provision of patient care services through regular assignments or delegated tasks or activities and under the supervision of a nurse.
- (2) “Assignments” are the normal daily functions of the UAP’s based on institutional or agency job duties which do not involve delegation of nursing functions or nursing judgment.
- (3) “Competency” is the demonstrated ability to carry out specified tasks or activities with reasonable skill and safety that adheres to the prevailing standard of practice in the nursing community.
- (4) “Validation” is ascertaining the competency including psychomotor skills of the UAP, verification of education or training of the UAP by the qualified individual delegating or supervising the task based on preestablished standards. Validation may be by direct verification of the delegator or assurance that the institution or agency has established and periodically reviews performance protocols, education or training for UAP’s.
- (5) “Delegation” is the transference to a competent individual the authority to perform a selected task or activity in a selected situation by a nurse qualified by licensure and experience to perform the task or activity.
- (6) “Delegator” is the registered nurse or licensed practical nurse delegating authority to the UAP.
- (7) “Delegate” is the UAP receiving the authority from the delegator.
- (8) “Supervision” is the provision of guidance by a qualified nurse and periodic inspection by the nurse for the accomplishment of a nursing task or activity, provided the nurse is qualified and legally entitled to perform such task or activity. The supervisor may be the delegator or a person of equal or greater licensure to the delegator.

- (9) “Direct supervision” means the supervisor is on the premises but not necessarily immediately physically present where the tasks and activities are being performed.
- (10) “Immediate supervision” means the supervisor is on the premises and is physically present where the task or activity is being performed.
- (11) “Indirect supervision” means the supervisor is not on the premises but is accessible by two way communication, is able to respond to an inquiry when made, and is readily available for consultation.
- (12) “Nursing judgment” is the intellectual process that a nurse exercises in forming an opinion and reaching a conclusion by analyzing data.
- (13) “Education” means a degree or certification of the UAP in a specific practice area or activity providing background and experience in theoretical or clinical aspects of that practice or activity.
- (14) “Training” is the learning of tasks by the UAP through on the job experience or instruction by a nurse who has the education or experience to perform the task or activity to be delegated.

Specific Authority 464.006 FS. Law Implemented 464.003(3)(a), (b), (d), (e), 464.018(1)(h) FS. History—New 1-1-96, Amended 4-29-96, Formerly 59S-14.001.

64B9-14.002 Delegation of Tasks or Activities.

In the delegation process, the delegator must use nursing judgment to consider the suitability of the task or activity to be delegated.

- (1) Factors to weigh in selecting the task or activity include:
 - (a) Potential for patient harm
 - (b) complexity of the task
 - (c) Predictability or unpredictability of outcome including the reasonable potential for a rapid change in the medical status of the patient
 - (d) Level of interaction required or communication available with the patient
 - (e) Resources both in equipment and personnel available in the patient setting
- (2) Factors to weigh in selecting and delegating to a specific delegate include:
 - (a) Normal assignments of the UAP
 - (b) Validation or verification of the education and training of the delegate
- (3) The delegation process shall include communication to the UAP which identifies the task or activity, the expected or desired outcome, the limits of authority, the time frame for the delegation, the nature of the supervision required, verification of delegate’s understanding of assignment, verification of monitoring and supervision.

- (4) Initial allocation of the task or activity to the delegate, periodic inspection of the accomplishment of such task or activity, and total nursing care responsibility remains with the qualified nurse delegating the tasks or assuming responsibility for supervision.

Specific Authority 464.006 FS. Law Implemented 464.003(3)(a), (b), (d), (e), 464.018(1)(h) FS. History—New 1-1-96, Formerly 59S-14.002.

64B9-14.003 Delegation of Tasks Prohibited.

The registered nurse or licensed practical nurse, under direction of the appropriate licensed professional as defined in Section 464.003(3)(b), F.S., shall not delegate:

- (1) Those activities not within the delegating or supervising nurse's scope of practice.
- (2) Nursing activities that include the use of the nursing process and require the special knowledge, nursing judgment or skills of a registered or practical nurse, including:
 - (a) The initial nursing assessment or any subsequent assessments;
 - (b) The determination of the nursing diagnosis or interpretations of nursing assessments;
 - (c) Establishment of the nursing care goals and development of the plan of care; and
 - (d) Evaluation of progress in relationship to the plan of care.
- (3) Those activities for which the UAP has not demonstrated competence.

Specific Authority 464.006 FS. Law Implemented 464.003(3)(a), (b), (d), (e), 464.018(1)(h) FS. History—New 1-1-96, Amended 4-29-96, Formerly 59S-14.003.

20 USC s.1232g

Family Educational Right to Privacy Act of 1974 FERPA/Buckley Amendment

Excerpts from FERPA Summary Statement
pertaining to school health

<http://www.cpsr.org/cpsr/privacy/ssn/ferpa.buckley.html>

Student education records are official and confidential documents protected by one of the nation's strongest privacy protection laws, the Family Educational Rights and Privacy Act (FERPA). FERPA, also known as the Buckley Amendment, defines education records as all records that schools or education agencies maintain about students. FERPA gives parents the right to review and confirm the accuracy of education records. These rights transfer to the student when the student turns eighteen years old or attends a post-secondary institution. At this time, the student is designated as an "eligible student" and holds the same rights as his or her parent held with respect to education records. This and other United States "privacy" laws ensure that information about citizens collected by schools and government agencies can be released only for specific and legally defined purposes. Since enacting FERPA in 1974, Congress has strengthened privacy safeguards of education records through this law, refining and clarifying family rights and agency responsibilities to protect those rights.

The primary rights of parents and eligible students under FERPA are:

- The right to inspect and review education records
- The right to seek to amend education records
- The right to have some control over the disclosure of information from education records.

The mandates of this Federal act are specific and far-reaching. Administrators in public education may unwittingly violate a family's right to privacy and confidentiality because they are not knowledgeable regarding the letter and spirit of this law. Frequently asked questions regarding FERPA are answered in this publication in an effort to strengthen educators' knowledge and understanding of this important federal law.

Over the past five years, FERPA has changed in a number of significant ways, and this briefing paper includes those more recent changes. This paper, however, does not include specific requirements that must be met by post-secondary institutions.

FERPA's legal statute citation can be found in the U. S. Code (20 USC 1232g) which incorporates all amendments to FERPA. FERPA regulations are found at Code of Federal Regulations (CFR) for Title 34; Part 99.

1. To which educational agencies or institutions do the FERPA regulations apply?

FERPA applies to public schools and state or local education agencies that receive Federal education funds. Most private and parochial schools at the elementary and secondary level do not receive these federal funds and, therefore, are not subject to FERPA.

2. What definitions apply to these regulations?

(a) “Education Records” are all records that:

- contain information directly related to a student including school health records for all students under the age of 18; student’s social security number; academic work completed; level of achievement records including grades and standardized achievement test scores; attendance data; scores on standardized intelligence, aptitude and psychological tests; interest inventory results; family background information; teacher or counselor ratings and observations; verified reports of serious or recurrent behavior patterns; and any other evidence, knowledge, or information recorded in any medium, including, but not limited to, handwriting, typewriting, print, magnetic tapes, film, microfilm, and microfiche; and
- are maintained by an education agency or institution or by a party acting for the agency or institution

Exceptions to “education records” include:

- records, such as personal notes that are kept in the sole possession of the maker of the record, that are used only as a memory aid and not revealed to anyone but a temporary substitute for the maker of the record;
- records of a school or school district’s law enforcement unit; and
- records of eligible students (18 years of age or older) that are (1) made or maintained by a physician, psychiatrist, psychologist, or other recognized professional or paraprofessional acting in his or her professional capacity or assisting in a paraprofessional capacity; (2) made, maintained, or used only in connection with treatment of the student; and (3) disclosed only to individuals providing the treatment.

15. Under what conditions is prior consent required to disclose information?

A parent or eligible student shall provide a signed and dated written consent before a school may disclose records. The consent must:

- specify the records that may be disclosed
- state the purpose of disclosure; and
- identify the party or class of parties to whom disclosure may be made

16. Under what conditions is PRIOR CONSENT NOT REQUIRED TO DISCLOSE INFORMATION?

The exceptions to prior consent for disclosure that apply to school districts are when records are released

- to school officials who are determined to have legitimate educational interest. (As noted previously, school districts must define “school officials” and “legitimate educational interest” in their annual notice to parents.)
- to schools or institutions of post-secondary education in which a student seeks or intends to enroll
- to federal, state, and local authorities involving an audit or evaluation of compliance with education program requirements
- in connection with financial aid, such as a college loan
- to organizations conducting studies for or on behalf of educational institutions
- to parents of a dependent student as defined by the Internal Revenue Services Code
- to accrediting organizations
- to comply with a judicial order or subpoena
- in a health or safety emergency
- as directory information
- to the parent of a student who is not an eligible student or to the student
- to state or local officials in connection with serving the student under the juvenile justice system in accordance with an interagency agreement as required by Section 228.093, Florida Statutes
- if a school district initiates legal action against a parent, or if a parent initiates legal action against a school district. In such circumstances, the school district may disclose to the court, without court order or subpoena, the education records of the student that are relevant for the school district to proceed with legal action as the plaintiff or to defend itself

(Note: There are additional provisions that apply exclusively to post-secondary institutions.)

Family Educational Right to Privacy Act. (FERPA) (as of 4/93) 20 USC s. 1232g.

(a) Conditions for availability of funds to educational agencies or institutions; inspection and review of education records; specific information to be made available; procedure for access to education records; reasonableness of time for such access; hearings; written explanations by parents; definitions.

(1) (A) No funds shall be made available under any applicable program to any educational agency or institution which has a policy of denying, or which effectively prevents, the parents of students who are or have been in attendance at a school of such agency or at such institution, as the case may be, the right to inspect and review the education records of their children. If any material or document in the education record of a student includes information on more than one student, the parents of one of such students shall have the right to inspect and review only such part of such material or document as relates to such student or to be informed of the specific information contained in such part of such material. Each educational agency or institution shall establish appropriate procedures for the granting of a request by parents for access to the education records of their children within a reasonable period of time, but in no case more than forty-five days after the request has been made.

(B) The first sentence of subparagraph (A) shall not operate to make available to students in institutions of postsecondary education the following materials:

(i) financial records of the parents of the student or any information contained therein;

(ii) confidential letters and statements of recommendation, which were placed in the education records prior to January 1, 1975, if such letters or statements are not used for purposes other than those for which they were specifically intended;

(iii) if the student has signed a waiver of the student's right of access under this subsection in accordance with subparagraph (C), confidential recommendations—

(I) respecting admission to any educational agency or institution,

(II) respecting an application for employment, and

(III) respecting the receipt of an honor or honorary recognition.

(C) A student or a person applying for admission may waive his right of access to confidential statements described in clause (iii) of subparagraph (B), except that such waiver shall apply to recommendations only if (i) the student is, upon request, notified of the names of all

persons making confidential recommendations and (ii) such recommendations are used solely for the purpose for which they were specifically intended. Such waivers may not be required as a condition for admission to, receipt of financial aid from, or receipt of any other services or benefits from such agency or institution.

(2) No funds shall be made available under any applicable program to any educational agency or institution unless the parents of students who are or have been in attendance at a school of such agency or at such institution are provided an opportunity for a hearing by such agency or institution, in accordance with regulations of the Secretary, to challenge the content of such student's education records, in order to insure that the records are not inaccurate, misleading, or otherwise in violation of the privacy or other rights of students, and to provide an opportunity for the correction or deletion of any such inaccurate, misleading, or otherwise inappropriate data contained therein and to insert into such records a written explanation of the parents respecting the content of such records.

(3) For the purposes of this section the term "educational agency or institution" means any public or private agency or institution which is the recipient of funds under any applicable program.

(4) (A) For the purposes of this section, the term "education records" means, except as may be provided otherwise in subparagraph (B), those records, files, documents, and other materials which—

(i) contain information directly related to a student; and

(ii) are maintained by an educational agency or institution or by a person acting for such agency or institution.

(B) The term "education records" does not include—

(i) records of instructional, supervisory, and administrative personnel and educational personnel ancillary thereto which are in the sole possession of the maker thereof and which are not accessible or revealed to any other person except a substitute;

(ii) records maintained by a law enforcement unit of the educational agency or institution that were created by that law enforcement unit for the purpose of law enforcement.

(iii) in the case of persons who are employed by an educational agency or institution but who are not in attendance at such agency or institution, records made and maintained in the normal course of business which relate exclusively to such person in that person's capacity as an employee and are not available for use for any other purpose; or

(iv) records on a student who is eighteen years of age or older, or is attending an institution of postsecondary education, which are made or maintained by a physician, psychiatrist, psychologist, or other recognized professional or paraprofessional acting in his professional or paraprofessional capacity, or assisting in that capacity,

and which are made, maintained, or used only in connection with the provision of treatment to the student, and are not available to anyone other than persons providing such treatment, except that such records can be personally reviewed by a physician or other appropriate professional of the student's choice.

(5) (A) For the purposes of this section the term "directory information" relating to a student includes the following: the student's name, address, telephone listing, date and place of birth, major field of study, participation in officially recognized activities and sports, weight and height of members of athletic teams, dates of attendance, degrees and awards received, and the most recent previous educational agency or institution attended by the student.

(B) Any educational agency or institution making public directory information shall give public notice of the categories of information which it has designated as such information with respect to each student attending the institution or agency and shall allow a reasonable period of time after such notice has been given for a parent to inform the institution or agency that any or all of the information designated should not be released without the parent's prior consent.

(6) For the purposes of this section, the term "student" includes any person with respect to whom an educational agency or institution maintains education records or personally identifiable information, but does not include a person who has not been in attendance at such agency or institution.

(b) Release of education records; parental consent requirement; exceptions; compliance with judicial orders and subpoenas; audit and evaluation of Federally-supported education programs; recordkeeping.

(1) No funds shall be made available under any applicable program to any educational agency or institution which has a policy or practice of permitting the release of educational records (or personally identifiable information contained therein other than directory information, as defined in paragraph (5) of subsection (a)) of students without the written consent of their parents to any individual, agency, or organization, other than to the following—

(A) other school officials, including teachers within the educational institution or local educational agency, who have been determined by such agency or institution to have legitimate educational interests;

(B) officials of other schools or school systems in which the student seeks or intends to enroll, upon condition that the student's parents be notified of the transfer, receive a copy of the record if desired, and have an opportunity for a hearing to challenge the content of the record;

(C) authorized representatives of (i) the Comptroller General of the United States, (ii) the Secretary, (iii) an administrative head of an educational agency

(as defined in section 408(c), or (iv) State educational authorities, under the conditions set forth in paragraph (3) of this subsection;

(D) in connection with a student's application for, or receipt of, financial aid;

(E) State and local officials or authorities to whom such information is specifically required to be reported or disclosed pursuant to State statute adopted prior to November 19, 1974;

(F) organizations conducting studies for, or on behalf of, educational agencies or institutions for the purpose of developing, validating, or administering predictive tests, administering student aid programs, and improving instruction, if such studies are conducted in such a manner as will not permit the personal identification of students and their parents by persons other than representatives of such organizations and such information will be destroyed when no longer needed for the purpose for which it is conducted;

(G) accrediting organizations in order to carry out their accrediting functions;

(H) parents of a dependent student of such parents, as defined in section 152 of the Internal Revenue Code of 1954; and

(I) subject to regulations of the Secretary, in connection with an emergency, appropriate persons if the knowledge of such information is necessary to protect the health or safety of the student or other persons.

Nothing in clause (E) of this paragraph shall prevent a State from further limiting the number or type of State or local officials who will continue to have access thereunder.

(2) No funds shall be made available under any applicable program to any educational agency or institution which has a policy or practice of releasing, or providing access to, any personally identifiable information in education records other than directory information, or as is permitted under paragraph (1) of this subsection unless—

(A) there is written consent from the student's parents specifying records to be released, the reasons for such release, and to whom, and with a copy of the records to be released to the student's parents and the student if desired by the parents, or

(B) such information is furnished in compliance with judicial order, or pursuant to any lawfully issued subpoena, upon condition that parents and the students are notified of all such orders or subpoenas in advance of the compliance therewith by the educational institution or agency.

(3) Nothing contained in this section shall preclude authorized representatives of (A) the Comptroller General of the United States, (B) the Secretary, (C) an administrative head of an education agency or (D) State

educational authorities from having access to student or other records which may be necessary in connection with the audit and evaluation of Federally-supported education program, or in connection with the enforcement of the Federal legal requirements which relate to such programs: Provided, That except when collection of personally identifiable information is specifically authorized by Federal law, any data collected by such officials shall be protected in a manner which will not permit the personal identification of students and their parents by other than those officials, and such personally identifiable data shall be destroyed when no longer needed for such audit, evaluation, and enforcement of Federal legal requirements.

(4) (A) Each educational agency or institution shall maintain a record, kept with the education records of each student, which will indicate all individuals (other than those specified in paragraph (1)(A) of this subsection), agencies, or organizations which have requested or obtained access to a student's education records maintained by such educational agency or institution, and which will indicate specifically the legitimate interest that each such person, agency, or organization has in obtaining this information. Such record of access shall be available only to parents, to the school official and his assistants who are responsible for the custody of such records, and to persons or organizations authorized in, and under the conditions of, clauses (A) and (C) of paragraph (1) as a means of auditing the operation of the system.

(B) With respect to this subsection, personal information shall only be transferred to a third party on the condition that such party will not permit any other party to have access to such information without the written consent of the parents of the student.

(5) Nothing in this section shall be construed to prohibit State and local educational officials from having access to student or other records which may be necessary in connection with the audit and evaluation of any federally or State supported education program or in connection with the enforcement of the Federal legal requirements which relate to any such program, subject to the conditions specified in the proviso in paragraph (3).

(6) Nothing in this section shall be construed to prohibit an institution of postsecondary education from disclosing, to an alleged victim of any crime of violence (as that term is defined in section 16 of title 18, United States Code), the results of any disciplinary proceeding conducted by such institution against the alleged perpetrator of such crime with respect to such crime.

(c) Surveys or data-gathering activities; regulations. The Secretary shall adopt appropriate regulations to protect the rights of privacy of students and their families in connection with any surveys or data-gathering activities conducted, assisted, or authorized by the Secretary or an administrative head of an education agency. Regulations established under this subsection shall include

provisions controlling the use, dissemination, and protection of such data. No survey or data-gathering activities shall be conducted by the Secretary, or an administrative head of an education agency under an applicable program, unless such activities are authorized by law.

- (d) Students' rather than parents' permission or consent. For the purposes of this section, whenever a student has attained eighteen years of age, or is attending an institution of postsecondary education the permission or consent required of and the rights accorded to the parents of the student shall thereafter only be required of and accorded to the student.
- (e) Informing parents or students of rights under this section. No funds shall be made available under any applicable program to any educational agency or institution unless such agency or institution informs the parents of students, or the students, if they are eighteen years of age or older, or are attending an institution of postsecondary education, of the rights accorded them by this section.
- (f) Enforcement; termination of assistance. The Secretary, or an administrative head of an education agency, shall take appropriate actions to enforce provisions of this section and to deal with violations of this section, according to the provisions of this Act, except that action to terminate assistance may be taken only if the Secretary finds there has been a failure to comply with the provisions of this section, and he has determined that compliance cannot be secured by voluntary means.
- (g) Office and review board; creation; functions. The Secretary shall establish or designate an office and review board within the Department of Health, Education, and Welfare for the purpose of investigating, processing, reviewing, and adjudicating violations of the provisions of this section and complaints which may be filed concerning alleged violations of this section. Except for the conduct of hearings, none of the functions of the Secretary under this section shall be carried out in any of the regional offices of such Department.

65 FR 82462

Health Insurance Portability and Accountability Act of 1996 (HIPAA)

U.S. Department of Health and Human Services (HHS),
Office of Civil Rights (OCR)

HIPAA was enacted by Congress in 1996 to ensure continued health insurance coverage to persons who move from one job to another and to address the growing problem of health information confidentiality in the electronic era. Rules were designed to ensure that healthcare information is available to those who need it (portability), while the privacy of the individual is safeguarded (accountability). HIPAA rules are very complex, and at the time of this publication HHS-OCR admitted that many issues remain unclear. It is almost certain that HIPAA and FERPA rules will overlap and may be in conflict. The regulations do not address school-based health centers (SBHCs), therefore HIPAA may not apply to schools, unless:

- the school bills for healthcare services (eg. Medicaid),
- the school is affiliated with a hospital, clinic, community health center, health department, or similar provider that bills for healthcare services.

The following critical questions that must be answered are raised in the October 2002 edition of *Health and Health Care in Schools*, Vol. 3, No. 8., pp. 1-2. (www.healthinschools.org/ejournal/2002/oct02_1.htm)

- Are childhood vaccination records “protected health information”? If so, what procedures are required to request a copy of records from a physician or clinic office?
- If schools or school systems bill for private insurance or Medicaid reimbursement for the costs of providing medical care to students, does that constitute a “HIPAA transaction” that will bring the entire school or school system under the medical privacy regulations?
- What is the OCR’s definition of the terms “sale or dispensing” of prescription drugs in the description of health care that is HIPAA-regulated? Would it apply to schools’ practice of storing and distributing prescription drugs to students during school hours?

Additional sources of information pertaining to HIPAA can be found at the following websites.

- www.healthinschools.org
- www.hhs.gov/ocr/hipaa
- www.access.gpo.gov/su_docs/aces/aces140.html

The following is excerpted from the HHS website that provides the current revisions of HIPAA along with guidelines and answers to frequent questions. HIPAA regulations are several

hundred pages in length and very complex. This brief discussion is not intended to provide clear recommendations. Rather, school health care providers should seek the advice of their legal council or the state attorneys general on specific compliance issues.

Background and General Information

The privacy provisions of the federal law, the Health Insurance Portability and Accountability Act of 1996 (HIPAA), apply to health information created or maintained by health care providers who engage in certain electronic transactions, health plans, and health care clearinghouses. The Department of Health and Human Services (HHS) has issued the regulation, “Standards for Privacy of Individually Identifiable Health Information,” applicable to entities covered by HIPAA. The Office for Civil Rights (OCR) is the Departmental component responsible for implementing and enforcing the privacy regulation. (See the Statement of Delegation of Authority to the Office for Civil Rights, as published in the Federal Register on December 28, 2000 - [HTML](#) / [Text](#) / [PDF](#))

**Final Rule Published in the Federal Register (65 FR 82462):
December 28, 2000**

Rule Effective Date: April 14, 2001

**Rule Compliance Date: April 14, 2003
(April 14, 2004, for small health plans)**

Covered entities (certain health care providers, health plans, and health care clearinghouses) are not required to comply with the HIPAA Privacy Rule until the compliance date. Covered entities may, of course, voluntarily protect patient health information before this date.

**On August 14, 2002, the Final Modifications to the Privacy Rule were published in the Federal Register.
www.hhs.gov/ocr/hipaa/finalreg.html**



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Objectives

This book was designed to facilitate several school health responsibilities defined under Florida Statute 381.0056. "The Legislature finds that health services conducted as a part of the total school health program should be carried out to appraise, protect, and promote the health of students. School health services supplement, rather than replace, parental responsibility and are designed to encourage parents/guardians to devote attention to child health, to discover health problems, and to encourage use of the services of their physicians, dentists, and community health agencies." Specific responsibilities listed in Florida Statute 381.0056 include:

- Meeting emergency health needs in each school;
- Maintenance of records on incidents of health problems, corrective measures taken, ... ;
- Provide inservice health training for school personnel;
- Make available adequate physical facilities for health services;
- ...inform parents or guardians in writing that their children who are students in the district schools will receive specified health services as provided for in the district health services plan.

It is hoped that this book will serve school district authorities, school administrators, and school health staff in the following ways:

1. Provide "best practice" concepts and models for developing medication policies, procedures, and guidelines.
2. Serve as a tool for nurses providing training to health aides and other support staff.
3. Provide information on medications and medication related topics.

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