



A Resource Aid Packet on

***Students and Psychotropic
Medication: The School's Role***



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The Center encourages widespread sharing of all resources.

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Preface

Resource Aid Packets are designed to complement our series of Introductory Packets. These resource aids are a form of *tool kit* related to a fairly circumscribed area of practice. The packets contain materials to guide and assist with staff training and student/family interventions. They include overviews, outlines, checklists, instruments, and other resources that can be reproduced and used as information handouts and aids for training and practice.

This Resource Aid on *Students and Psychotropic Medication: The School's Role* is divided into three sections:

- > Section I provides an overview perspective, guidelines, and tools related to a school's role in administering and monitoring medication, educating school staff about medication, and providing guidance for students on medication.
- > The next section highlights major medications and their side effects, with emphasis on those prescribed for prevalent diagnoses encountered in schools, such as attention deficit-hyperactivity disorders, conduct disorder, anxiety disorders, and so forth.
- > The final section outlines resources for more information and support, including Internet sites, centers, agencies, advocacy groups, and relevant publications.



School professionals encountering students on medication are confronted with a variety of procedures and issues related to medication administration, monitoring, and effects. This resource aid is designed to provide a brief overview and some aids and information related to these matters. For descriptions of problems cited and broad intervention perspectives, see the material from the Center (<http://smhp.psych.ucla.edu>)

Please note:

The psychotropic medication cited throughout this packet are those most likely to be encountered. Be aware; significant number of psychotropic medications have not been approved by the Federal Drug Enforcement Agency for use with children and adolescents. They are included here for information purposes only. Other less common medications are not cited but can be found in the Physicians Desk Reference.

Also, see the 2002 NIH publication: “Medication”, which describes medication for mental illness and has a specific section on children and a children’s medication chart.

(See <http://www.nimh.nih.gov/publicat/medicate.cfm>)

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Table of Contents

	<i>Page</i>
Introduction: Psychotropic Medication: Q & A	4
Section I : <i>Overview: Guide to a School's Role</i>	8
Safeguarding the School and the Student	9
• Request for Medication to be Taken During School Hours (sample form)	10
Do the Student and Family Understand the Medication?	11
Administration and Record Keeping	12
• Medication monitoring and record keeping, (sample form)	12
Educating school staff and getting their feedback on medication effects	13
Supportive guidance and counseling	13
• Example of Memo for School Staff re: Psychotropic Medication (sample form)	14
• Feedback Report Related to Student Taking Medication (sample form)	15
Section II : <i>Brief Information on Medications and Their Side Effects</i>	16
Psychiatric Medication For Children And Adolescents.....	17
• Excerpt from: <i>Medications</i> including a Children’s Medication Chart.....	20
Psychotropic Medications and Attention deficit-hyperactivity disorder	26
• Medication Caution	28
• FDA Approves Non-Stimulant ADHD Drug	28
Psychotropic Medications and Conduct disorder	29
Psychotropic Medications and Tourette's syndrome	31
Psychotropic Medications and Pervasive developmental disorders	33
• Excerpt from: <i>Pharmacotherapeutic management of autism</i>	35
Psychotropic Medications and Bipolar disorder	36
Psychotropic Medications and Anxiety disorders	39
• Excerpt from: <i>Pharmacotherapy of social anxiety disorder</i>	42
Asthma and Epilepsy Medications May Affect Classroom Behavior	43
Section III : <i>Places to Go for More Information & Support</i>	44
• Internet Resources	45
• Centers, Agencies, and Advocacy Groups	46
• References	48
• Material developed by our Center	57
• Quick Find.....	58
Coda: Lessons Learned: Revisiting Medication for Kids	60
Appendix: State Policy and guidelines Example	62

PSYCHOTROPIC MEDICATION:



Q. What is psychotropic medication?

A. They are a class of drugs that are prescribed for persons whose symptoms are viewed as having a psychological base. Most such medications act on the central nervous system, although some work on the peripheral nervous system.

Q. What type of problems are they used to treat?

A. They are prescribed for various emotional/behavioral problems and psychopathological conditions -- ranging from Bed wetting and hyperactivity to psychoses.

Q. How is it decided that a youngster needs medication?

A. Appropriate standards for practice stress that psychotropic medication should only be prescribed after a careful assessment of need by a mental health professional and analysis of potential benefits and risks. Medication should only be used when the benefits clearly outweigh the risks and, in almost all cases, should not be the sole treatment. In many cases, they should be added only after other interventions are found to be insufficient.

Q. What types of medication are prescribed?

A. The American Academy of Child and Adolescent Psychiatry groups psychotropic medication into the following seven categories:

- > *stimulant medication* (e.g., dextroamphetamine [Dexedrine], methylphenidate hydrochloride [Ritalin], magnesium pemoline [Cylert])
- > *anti-depressants* (e.g., tricyclic drugs such as imipramine hydrochloride [Tofranil]; other antidepressants such as fluoxetine [Prozac] and sertraline hydrochloride [Zoloft])
- > *Anti psychotic medication* (e.g., major tranquilizers such as haloperidol lactate [Haldol], chlorpromazine [Thorazine], trifluoperazine hydrochloride [Stelazine], clozapine [Clozaril], thioridazine hydrochloride [Mellaril], and benisoxazole [Risperdal])
- > *mood stabilizers and anticonvulsants* (e.g., antimanic drugs such as lithium carbonate [Lithium, Lithane], lithium citrate [Cibalith]; anticonvulsants such as carbamazepine [Tegretol, Mazerpine, Epitol]; valproic acid [Depakene])
- > *anti-anxiety medications* (e.g., besides anti-depressants and Anti psychotic medication, prescribers use anxiolytics such as chlordiazepoxide [Librium], alprazolam [Xanax] and buspirone hydrochloride [BuSpar], as well as antihistamines such as diphenhydramine [Benedryl] and hydroxyzine hydrochloride [Atarax])

- > *sleep medications* (e.g. SRI anti-depressants, Trazodone [Desyrel], Zolpidem [Ambien], and Diphenhydramine [Benadryl])
- > *miscellaneous medications* (e.g. clonidine [Catapres] may be used to treat the severe impulsiveness in some children with ADHD and guanfacine [Tenex] for “flashbacks” in children with PTSD.)

Q. How effective is such medication?

A. As the American Academy of Child and Adolescent Psychiatry cautions, the usefulness of most psychotropic medications for children has not been well documented. This is also the case with regard to clarifying the unwanted side effects that range from just annoying to very serious. And, data on long-term effects on development are sparse. The FDA does not sanction the use of many psychotropic medications for the treatment of children. Prescribers should fully explain why any medication is needed, its potential benefits and costs (including unwanted effects or dangers), and treatment alternatives.

Q. Is there a withdrawal problem when medication is terminated?

A. With the exception of a few rapidly metabolized drugs, the standard for practice is to reduce use gradually to minimize withdrawal symptoms.

No Magic Bullets

Medical researchers warn that it is a mistake to think about medication as if it worked like a magic bullet. They say many people tend to think that, once administered, a drug speeds directly to its target and cures the problem. Medication is imagined to disappear upon entering the body and to reappear magically at its goal where it performs its work and again disappears. This belief fosters a tendency to ignore such facts as (1) *drugs can cause damage as they go through the body*, and (2) *drugs don't necessarily stop having effects as soon as they have done the work they are intended to do*. This is not an argument against using medication when it is appropriate to do so. It is a caution against using any medication injudiciously; it is a reason to monitor use carefully to determine that benefits are outweighing costs; it is grounds for stopping the use of medication as soon as it is no longer needed.

We all dream of miracle cures. But most of us recognize that quick and easy treatments for difficult problems are rare. Still, when we are involved, the hope for a miracle is strong. This makes us a bit too receptive to those claiming to have an effective answer and bit too ready to ignore possible harmful effects of treatments. A youngster on medication to control behavior may be less of a behavior problem, but may be so sedated that s/he does not learn any better (and perhaps may learn less) than before the pills were prescribed. It is essential to monitor all facets of medication effects to decide whether the benefits are outweighing the costs.

When it comes to the psychosocial and mental health problems experienced by children and adolescents, interventions must be carefully planned and usually must be multifaceted. Medication may be a component for some. Whatever the course of action, it is likely to take time and a great deal of effort on the part of mental health practitioners, teachers, parents, and the youngster. When all work together, there is every reason to be optimistic.

*Excerpt from Monitor on Psychology
Volume 37, No. 10 November 2006*

PSYCHOTROPIC PARTICULARS

Medicate or not?

An APA working group reports on use of medications when treating children.

By Laurie Meyers, Monitor Staff

In a health-care system that too often limits mental health services for children, physicians frequently see psychotropic medication as the best and least expensive treatment...In fact, a recent study indicates a five-fold increase in the use of anti-psychotic drugs in children from 1993 to 2002.

The report stresses the need for mental health professionals to balance the benefits of any treatment with its possible risks, recommending that practitioners consider lower-risk alternatives first.

Excerpt from Brandeis University

Psychotropic drug prescriptions for teens surge 250 percent over seven years

Released on January 03, 2006

Psychotropic drug prescriptions for teenagers skyrocketed 250 percent between 1994 and 2001, rising particularly sharply after 1999, when the federal government allowed direct-to-consumer advertising and looser promotion of off-label use of prescription drugs, according to a new Brandeis University study in the journal *Psychiatric Services*. This dramatic increase in adolescent visits to health care professionals which resulted in a prescription for a psychotropic drug occurred despite the fact that few psychotropic drugs, typically prescribed for ADHD, depression and other mood disorders, are approved for use in children under 18. The study is one of the first to focus on prescriptions to adolescents, rather than children in general. The study shows that by 2001, one in every ten of all office visits by teenage boys led to a prescription for a psychotropic drug. Other findings in the study show that a diagnosis of ADHD was given in about one-third of office visits during the study period. Also, between 14 and 26 percent of visits in which psychotropic medications were prescribed did not have an associated mental health diagnosis, said lead author Professor Cindy Parks Thomas, an expert on prescription drug trends, at Brandeis University's Heller School for Social Policy and Management. "There is an alarming increase in prescribing these drugs to teens, and the reasons for this trend need further scrutiny," said Thomas. "Our study suggests a number of factors may be particularly important to assess, including the impact of direct-to-consumer advertising and other marketing strategies." Additional factors likely fueling the trend, noted by the authors, include greater acceptance among physicians and the public of psychotropic drugs, the advent of new medications with fewer side effects, increased screening for mental health disorders, and patient demand for such drugs. Nevertheless, the study noted that overall, pharmaceutical companies increased their spending on television advertising six fold, to \$1.5 billion, between 1996 and 2000, with the trend accelerating after 1997, when the Food and Drug Administration Modernization Act was passed. However, at the same time teenagers were being prescribed more psychotropic drugs than ever before, other prescription drugs taken by adolescents were trending down, said Thomas. For example, the use of antibiotics, the most widely prescribed drugs for teenagers, fell dramatically in response to widespread public educational campaigns about the dangers of antibiotic resistance due to overuse of these drugs. "The dramatic increase in prescribing of psychotropic medications is of considerable concern, particularly because these medications are not without risks," Thomas said.

Excerpt from National Institute of Mental Health

Treatment of Children with Mental Disorders

A booklet with answers to frequently asked questions about the treatment of mental disorders in children — includes a medications chart. (2004)

A Note to Parents

There has been public concern over reports that very young children are being prescribed psychotropic medications. The studies to date are incomplete, and much more needs to be learned about young children who are treated with medications for all kinds of illnesses. In the field of mental health, new studies are needed to tell us what the best treatments are for children with emotional and behavioral disturbances.

Children are in a state of rapid change and growth during their developmental years. Diagnosis and treatment of mental disorders must be viewed with these changes in mind. While some problems are short-lived and don't need treatment, others are persistent and very serious, and parents should seek professional help for their children.

Not long ago, it was thought that many brain disorders such as anxiety disorders, depression, and bipolar disorder began only after childhood. We now know they can begin in early childhood. An estimated 1 in 10 children and adolescents in the United States suffers from mental illness severe enough to cause some level of impairment. Fewer than one in five of these ill children receives treatment. Perhaps the most studied, diagnosed, and treated childhood-onset mental disorder is attention deficit hyperactivity disorder (ADHD), but even with this disorder there is a need for further research in very young children.

This booklet contains answers to frequently asked questions regarding the treatment of children with mental disorders.



A Resource Aid Packet on Students and Psychotropic Medication: The School's Role

Section I

Overview Guide to a School's Role

Safeguarding the School and the Student

- Request for Medication to be Taken During School Hours (sample form)

Do the Student and Family Understand the Medication?

Administration and Record Keeping

- Medication monitoring and record keeping, (sample form)

Educating school staff and getting their feedback on medication effects

Supportive guidance and counseling

- Example of Memo for School Staff re: Psychotropic Medication (sample form)
- Feedback Report Related to Student Taking Medication (sample form)

Increasing numbers of students are on regimens of medication to treat a variety of symptoms and conditions. Although use of drugs to treat some conditions is essential, prescribing psychotropic medication for children who manifest common behavioral, emotional, and learning problems is highly controversial.

School staff play two major roles with respect to medication: (1) they often are asked to provide information to assist prescribers in deciding whether to place a student on medication and (2) prescribers want feedback from school personnel as to drug effects.

In the first instance, school staff need to address a variety of factors in the school environment before they suggest that there is something wrong inside the student. That is, in keeping with the principle of using the least intervention needed, significant efforts must be made to improve the student's functioning at school through personalizing the classroom program -- before any conclusion is reached about the locus of the problem. Such personalization encompasses a host of prereferral interventions.

In the second instance, school staff must operate within a set of policies and procedures



clarifying the school's role in administering medication, protecting a student's rights, and providing feedback to prescribers. It is these matters that are our focus here.

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Safeguarding the School and the Student

School staff must be clear as to the district's policies and procedures regarding administering medication. The basics here include that

- there must be signed permission from the legal guardian and the prescriber, along with information about the prescribed medication, such as why it is needed, guidelines for administration, indications of side effects, and a termination date -- all of which is to be updated at a designated interval (see attached example from one school district),
- medication is to be provided to the school in the original, officially labeled container,
- medication is appropriately stored and safeguarded,
- administration and refills are documented,
- there is a plan by which refills will be provided in a timely fashion,
- there is clear identification of who is authorized to administer medication (e.g., school nurse, health aide, teacher, office staff),
- there is a plan for how to deal with negative effects.
- Example Form: Request For Medication to be Taken During School Hours (see next page)

**For an Example of a State Policy and
Guidelines see Appendix**

**LOS ANGELES UNIFIED SCHOOL DISTRICT
SCHOOL MENTAL HEALTH SERVICES
REQUEST FOR MEDICATION TO BE TAKEN DURING SCHOOL HOURS
(To be completed by a licensed physician)**

Last Name of Student, First Name Sex Birth Date School

Purpose of Medication or Diagnosis Name of Medication

Dosage Prescribed Time Schedule at School Dose from (Tablet/Liquid) Color

Date of Prescription Length of Time This Medication Will Be Necessary

Physician's Recommendations (Check where applicable):

_____ Please notify this office if my patient misses medication at school.

_____ Medication may have adverse effects (explain)

_____ Special instructions and/or comments _____

The Student for whom this medication is prescribed is under my care.

Print Name of Licensed Physician Signature of Licensed Physician

Address Telephone No. Date

**REQUEST FOR MEDICATION TO BE TAKEN DURING SCHOOL HOURS
(To be completed by parent/guardian)**

I request that my child, _____, be assisted/supervised in taking the above prescribed medication at school. I will comply with the policies and procedures determined by the school district.

Date Home Telephone Emergency Telephone

Signature of Parent/Guardian/ Student 18 years or older

Form 33.199(Rev. 5/96)



A Resource Aid Packet on **Students and Psychotropic Medication: The School's Role**

Do the Student and Family Understand the Medication?

The school can play a role in ensuring that the student and family understand what has been prescribed and why. In particular, the school can play a role in being certain that explanations are provided children and adolescents in ways they can comprehend.

Most basically, the student and family must understand that psychotropic medication is only one facet of a comprehensive intervention plan. They also need to be cautioned about side effects and the importance of continuous monitoring.

As an aid to families, the American Academy of Child and Adolescent Psychiatry suggests the following set of questions to ask about psychiatric medications for children and adolescents.

1. What is the name of the medication? Is it known by other names?
 2. What is known about its helpfulness with other children who have a similar condition to my child?
 3. How will the medication help my child? How long before I see improvement? When will it work?
 4. What are the side effects which commonly occur with this medication?
 5. What are the rare or serious side effects, if any, which can occur?
 6. Is this medication addictive? Can it be abused?
 7. What is the recommended dosage? How often will the medication be taken?
 8. Are there any laboratory tests (e.g. heart tests, blood test, etc.) which need to be done before my child begins taking the medication? Will any tests need to be done while my child is taking the medication?
 9. Will a child and adolescent psychiatrist be monitoring my child's response to medication and make dosage changes if necessary? How often will progress be checked and by whom?
 10. Are there any other medications or foods which my child should avoid while taking the medication?
 11. Are there any activities that my child should avoid while taking the medication? Are any precautions recommended for other activities?
 12. How long will my child need to take this medication? How will the decision be made to stop this medication?
 13. What do I do if a problem develops (e.g. if my child becomes ill, doses are missed, or side effects develop)?
 14. What is the cost of the medication (generic vs. brand name)?
- Does my child's school nurse need to be informed about this medication?



A Resource Aid Packet on Students and Psychotropic Medication: The School's Role

Educating School Staff and Getting Feedback on Medication Effects

If school staff are to play an appropriate role in providing feedback on medication effects, they must be provided with a variety of learning opportunities. A simple first step is to provide them with some written information (see attached example).

Those asked to provide feedback about drug effects, of course, must learn a good deal more about the effects of the specific medication that a student is taking. In particular they must be reasonably informed about the temporal course of the medication. The effects (positive and negative) increase, peak, and usually are expected to wane somewhat between administrations. Prescribers should provide information on when the strongest effects are likely to occur and what "withdrawal" symptoms are likely to be seen in the waning period, especially rebound effects (such as the increased irritability, activity, and inattentiveness seen in some children taking stimulant medication). It is also important to alert staff that in the early stages of the treatment, the dosage may have to be varied until the right amount for the individual is determined. Such information will allow them to make better judgments about whether what they are observing is to be expected or not.

Because school staff already are overburdened with paperwork, it is imperative to use a simple feedback report (see attached example).

Part of providing feedback is to convey observations about the student's feelings about taking the medication. Students may dislike medication because they are embarrassed for others to know they are doing so or because of the way it makes them feel or because it interferes with doing something they want to do. Such psychological reactions can influence the apparent effects of the medication and can even lead to students finding surreptitious ways to avoid digesting pills. (If a youngster is strongly avoidant about taking medication, the prescriber, parents, and youngster need to discuss the matter thoroughly.)

Another concern to watch for and report is parent mismanagement of the prescription. Parents may overdose a youngster in hopes of accelerating the treatment or may withhold medication when symptoms subside. Those with scheduling problems may double the dosage because they won't be around when for the next scheduled administration. Some may fail to get refills. The reasons for all this vary, and school staff often aren't in a position to know the "whys and wherefors." But, information of misuse of prescriptions often arise from discussions with the student or parents.

And, of course, it is imperative to watch for any indications that prescribed medications are being used for substance abuse.

Supportive Guidance and Counseling

Students on medication often need ongoing information and support to better understand what they are experiencing related to medication effects and the problem for which the medication is prescribed. One approach is to establish a support group for such students at the school or to connect students with such a group in the community.

Example of Memo for School Staff re: Psychotropic Medication

To: School Staff

From:

Re: Information on Students and Medication

Some students take medication for physical or mental health problems that may effect their classroom behaviors. You may also note changes that are the result of changes in dosage or failure to take medication on a regular basis.

While we all have good and bad days, if you notice students whose behavior changes dramatically (seems lethargic, irritable, jumpy, or complains of stomach aches or headaches), you may want to check with parents to let them know. In some cases, families and students want to keep medication use confidential. In other cases, parents and prescribers will want feedback from the school to decide on effective dosage and time of administration.

Psychotropic medications commonly taken that may effect classroom behavior have been grouped by the American Academy of Child and Adolescent Psychiatry into the following categories:

- > *stimulant medication* (e.g., dextroamphetamine [Dexedrine], methylphenidate hydrochloride [Ritalin], magnesium pemoline [Cylert])
- > *antidepressants* (e.g., tricyclic drugs such as imipramine hydrochloride [Tofranil,]; other antidepressants such as fluoxetine [Prozac] and sertraline hydrochloride [Zoloft])
- > *Anti psychotic medication* (e.g., major tranquilizers such as haloperidol lactate [Haldol], chlorpromazine [Thorazine], trifluoperazine hydrochloride [Stelazine], clozapine [Clozaril], thioridazine hydrochloride [Mellaril], and benisoxazole [Risperdal])
- > *mood stabilizers and carbamazepine* (e.g., antimanic drugs such as lithium carbonate [Lithium, Lithane], lithium citrate [Cibalith]; anticonvulsants such as carbamazepine [Tegretol, Mазepine, Epitol], and valproic acid [Depakene])
- > *Anti anxiety medications* (e.g., besides anti-depressants and Anti psychotic medication, prescribers use anxiolytics such as chlordiazepoxide [Librium], alprazolam [Xanax] and buspirone hydrochloride [BuSpar], as well as antihistamines such as diphenhydramine [Benadryl] and hydroxyzine hydrochloride [Atarax])
- > *sleep medications* (e.g. SRI anti-depressants, Trazodone [Desyrel], Zolpidem [Ambien], and Diphenhydramine [Benadryl])
- > *miscellaneous medications* (e.g. clonidone [Catapres] may be used to treat the severe impulsiveness in some children with ADHD and guanfacine [Tenex] for “flashbacks” in children with PTSD.)

Other medications taken for asthma and epilepsy may also affect classroom functioning.

If you are interested in more information about medication or have students whose behavior concerns you, please let me know.

The procedures at the school are to dispense medication only with a prescribing physicians instructions and parent consent. If you are asked to dispense, please inform parents of our policy.

Feedback Report Related to Student Taking Medication

This report of a student's behavior is needed by the prescribing physician to monitor dosage and effectiveness. A parent/student form consenting to your providing this feedback is on file. If you have questions or concerns, you may want to talk with the student's parents. Thanks for your help.

Name of Student _____ Birthdate _____
Your Name _____ Room _____

How many hours/day do you spend with this student? _____

Brief description of behavior	Poor	Average	Good	In your judgement, is this attributable to the medication?	
Behavior	_____	_____	_____	Yes	No
Attention to task	_____	_____	_____	Yes	No
Completion of work	_____	_____	_____	Yes	No
Physical Changes	_____	_____	_____	Yes	No
Other (specify): _____	_____	_____	_____	Yes	No

If you answered no to any of the above, please explain briefly.

Briefly note any positive or negative changes in behavior and attitude you have noticed in the past 2 weeks.

What is the student's attitude about taking the medication? ___positive ___neutral ___negative

Please complete by _____ Return to _____



A Resource Aid Packet on Students and Psychotropic Medication: The School's Role

Section II

Brief Information on Medications and Their Side Effects

In this section, you will find guides outlining the purposes, negative effects, and some related considerations with respect to major medications used with students.

Psychotropic Medication for Children and Adolescents

- Excerpt from: *Medications* including a Children's Medication Chart

Psychotropic Medications categorized by Child/Adolescent Diagnosis

- Attention deficit-hyperactivity disorder
 - Medication Caution
 - FDA Approves Non-Stimulant ADHD Drug
- Conduct disorder
- Tourette's syndrome
- Pervasive developmental disorders
 - Excerpt from: *Pharmacotherapeutic management of autism*
- Bipolar disorder
- Anxiety disorders
 - Excerpt from: *Pharmacotherapy of social anxiety disorder*
- Asthma and Epilepsy Medications May Affect Classroom Behavior

Psychiatric Medication For Children And Adolescents Part I-How Medications Are Used

Medication can be an effective part of the treatment for several psychiatric disorders of childhood and adolescence. A doctor's recommendation to use medication often raises many concerns and questions in both the parents and the youngster. The physician who recommends medication should be experienced in treating psychiatric illnesses in children and adolescents. He or she should fully explain the reasons for medication use, what benefits the medication should provide, as well as possible risks and side effects and other treatment alternatives.

Psychiatric medication should not be used alone. The use of medication should be based on a comprehensive psychiatric evaluation and be one part of a comprehensive treatment plan.

Medication may be prescribed for psychiatric symptoms and disorders, including, but not limited to:

1. **Bedwetting**-if it persists regularly after age 5 and causes serious problems in low self-esteem and social interaction.
2. **Anxiety** (school refusal, phobias, separation or social fears, generalized anxiety, or posttraumatic stress disorders)-if it keeps the youngster from normal daily activities.
3. **Attention deficit hyperactivity disorder (ADHD)**-marked by a short attention span, trouble concentrating and restlessness. The child is easily upset and frustrated, often has problems getting along with family and friends, and usually has trouble in school.
4. **Obsessive-compulsive disorder (OCD)**-recurring obsessions (troublesome and intrusive thoughts) and/or compulsions (repetitive behaviors or rituals such as handwashing, counting, checking to see if doors are locked) which are often seen as senseless but which interfere with a youngster's daily functioning.
5. **Depression**-lasting feelings of sadness, helplessness, hopelessness, unworthiness and guilt, inability to feel pleasure, a decline in school work and changes in sleeping and eating habits.
6. **Eating disorder**-either self-starvation (anorexia nervosa) or binge eating and vomiting (bulimia), or a combination of the two.
7. **Bipolar (manic-depressive) disorder**-periods of depression alternating with manic periods, which may include irritability, "high" or happy mood, excessive energy, behavior problems, staying up late at night, and grand plans.
8. **Psychosis**-symptoms include irrational beliefs, paranoia, hallucinations (seeing things or hearing sounds that don't exist) social withdrawal, clinging, strange behavior, extreme stubbornness, persistent rituals, and deterioration of personal habits. May be seen in developmental disorders, severe depression, schizoaffective disorder, schizophrenia, and some forms of substance abuse.
9. **Autism**-(or other pervasive developmental disorder such as Asperger's Syndrome)-characterized by severe deficits in social interactions, language, and/or thinking or ability to learn, and usually diagnosed in early childhood.
10. **Severe aggression**-which may include assaultiveness, excessive property damage, or prolonged self-abuse, such as head-banging or cutting.
11. **Sleep problems**-symptoms can include insomnia, night terrors, sleep walking, fear of separation, anxiety.

Psychiatric Medication For Children And Adolescents: Part II - Types Of Medications

Psychiatric medications can be an effective part of the treatment for psychiatric disorders of childhood and adolescence. In recent years there have been an increasing number of new and different psychiatric medications used with children and adolescents. Research studies are underway to establish more clearly which medications are most helpful for specific disorders and presenting problems.

ADHD Medications: Stimulant and non-stimulant medications may be helpful as part of the treatment for attention deficit hyperactive disorder (ADHD). Examples of stimulants include: Dextroamphetamine (*Dexedrine, Adderal*) and Methylphenidate (*Ritalin, Metadate, Concerta*). Non-stimulant medications include Atomoxetine (*Strattera*).

Antidepressant Medications: Antidepressant medications may be helpful in the treatment of depression, school phobias, panic attacks, and other anxiety disorders, bedwetting, eating disorders, obsessive-compulsive disorder, personality disorders, posttraumatic stress disorder, and attention deficit hyperactive disorder. There are several types of antidepressant medications. Examples of **serotonin reuptake inhibitors** (SRI's) include: Fluoxetine (*Prozac*), Sertraline (*Zoloft*), Paroxetine (*Paxil*), Fluvoxamine (*Luvox*), Venlafaxine (*Effexor*), Citalopram (*Celexa*) and Escitalopram (*Lexapro*). Examples of **atypical antidepressants** include: Bupropion (*Wellbutrin*), Nefazodone (*Serzone*), Trazodone (*Desyrel*), and Mirtazapine (*Remeron*). Examples of **tricyclic antidepressants** (TCA's) include: Amitriptyline (*Elavil*), Clomipramine (*Anafranil*), Imipramine (*Tofranil*), and Nortriptyline (*Pamelor*). Examples of **monoamine oxidase inhibitors** (MAOI's) include: Phenelzine (*Nardil*), and Tranylcypromine (Parnate).

Antipsychotic Medications: These medications can be helpful in controlling psychotic symptoms (delusions, hallucinations) or disorganized thinking. These medications may also help muscle twitches ("tics") or verbal outbursts as seen in Tourette's Syndrome. They are occasionally used to treat severe anxiety and may help in reducing very aggressive behavior. Examples of **first generation antipsychotic medications** include: Chlorpromazine (*Thorazine*), Thioridazine (*Mellaril*), Fluphenazine (*Prolixin*), Trifluoperazine (*Stelazine*), Thiothixene (*Navane*), and Haloperidol (*Haldol*). **Second generation antipsychotic medications** (also known as atypical or novel) include: Clozapine (*Clozaril*), Risperidone (*Risperdal*), Quetiapine (*Seroquel*), Olanzapine (*Zyprexa*), Ziprasidone (*Geodon*) and Aripiprazole (*Abilify*).

Mood Stabilizers and Anticonvulsant Medications: These medications may be helpful in treating bipolar disorder, severe mood symptoms and mood swings (manic and depressive), aggressive behavior and impulse control disorders. Examples include: Lithium (lithium carbonate, *Eskalith*), Valproic Acid (*Depakote, Depakene*),

Carbamazepine (*Tegretol*), Gabapentin (*Neurontin*), Lamotrigine (*Lamictil*), Topiramate (*Topamax*), and Oxcarbazepine (*Trileptal*).

Anti-anxiety Medications: These medications may be helpful in the treatment of severe anxiety. There are several types of anti-anxiety medications: **benzodiazepines**; antihistamines; and atypicals. Examples of benzodiazepines include: Alprazolam (*Xanax*), lorazepam (*Ativan*), Diazepam (*Valium*), and Clonazepam (*Klonopin*). Examples of antihistamines include: Diphenhydramine (*Benadryl*), and Hydroxyzine (*Vistaril*). Examples of atypical anti-anxiety medications include: Buspirone (*BuSpar*), and Zolpidem (*Ambien*).

Sleep Medications: A variety of medications may be used for a short period to help with sleep problems. Examples include: Trazodone (*Desyrel*), Zolpidem (*Ambien*), Zaleplon (*Sonata*) and Diphenhydramine (*Benadryl*).

Miscellaneous Medications: Other medications are also being used to treat a variety of symptoms. For example: clonidine (*Catapres*) may be used to treat the severe impulsiveness in some children with ADHD and guanfacine (*Tenex*) for "flashbacks" in children with PTSD.

Long-Acting Medications: Many newer medications are taken once a day. These medications have the designation SR (sustained release), ER or XR (extended release), CR (controlled release) or LA (long-acting)

Excerpt from:

Medications

NIH Publication No. 02-3929

<http://www.nimh.nih.gov/publicat/medicate.cfm>

CHILDREN

The 1999 MECA Study (Methodology for Epidemiology of Mental Disorders in Children and Adolescents) estimated that almost 21 percent of U.S. children ages 9 to 17 had a diagnosable mental or addictive disorder that caused at least some impairment. When diagnostic criteria were limited to *significant* functional impairment, the estimate dropped to 11 percent, for a total of 4 million children who suffer from a psychiatric disorder that limits their ability to function.⁶



It is easy to overlook the seriousness of childhood mental disorders. In children, these disorders may present symptoms that are different from or less clear-cut than the same disorders in adults. Younger children, especially, and sometimes older children as well, may not talk about what is bothering them. For this reason, it is important to have a doctor, another mental health professional, or a psychiatric team examine the child.

Many treatments are available to help these children. The treatments include both medications and psychotherapy--behavioral therapy, treatment of impaired social skills, parental and family therapy, and group therapy. The therapy used is based on the child's diagnosis and individual needs.

When the decision is reached that a child should take medication, active monitoring by all caretakers (parents, teachers, and others who have charge of the child) is essential. Children should be watched and questioned for side effects because many children, especially younger ones, do not volunteer information. They should also be monitored to see that they are actually taking the medication and taking the proper dosage on the correct schedule.

Childhood-onset depression and anxiety are increasingly recognized and treated. However, the best-known and most-treated childhood-onset mental disorder is attention deficit hyperactivity disorder (ADHD). Children with ADHD exhibit symptoms such as short attention span, excessive motor activity, and impulsivity which interfere with their ability to function especially at school. The medications most commonly prescribed for ADHD are called stimulants. These include methylphenidate (Ritalin, Metadate, Concerta), amphetamine (Adderall), dextroamphetamine (Dexedrine, Dextrostat), and pemoline (Cylert). Because of its potential for serious side effects on the liver, pemoline is not ordinarily used as a first-line therapy for ADHD. Some antidepressants such as bupropion (Wellbutrin) are often used as alternative medications for ADHD for children who do not respond to or tolerate stimulants.

Based on clinical experience and medication knowledge, a physician may prescribe to young children a medication that has been approved by the FDA for use in adults or older children. This use of the medication is called "off-label." Most medications prescribed for childhood mental disorders, including many of the newer medications that are proving helpful, are prescribed off-label because only a few of them have been systematically studied for safety and efficacy in children. Medications that have not undergone such testing are dispensed with the statement that "safety and efficacy have not been established in pediatric patients." The FDA has been urging that products be appropriately studied in children and has offered incentives to drug manufacturers to carry out such testing. The National Institutes of Health and the FDA are examining the issue of medication research in children and are developing new research approaches.

The use of the other medications described in this booklet is more limited with children than with adults. Therefore, a special list of medications for children, with the ages approved for their use, appears immediately after the general list of medications. Also listed are NIMH publications with more information on the treatment of both children and adults with mental disorders.

CHILDREN'S MEDICATION CHART
 NIH Publication No. 02-3929
<http://www.nimh.nih.gov/publicat/medicate.cfm>

TRADE NAME	GENERIC NAME	APPROVED AGE
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Stimulant Medications

Adderall	amphetamine	3 and older
Adderall XR	amphetamine (extended release)	6 and older
Concerta	methylphenidate (long acting)	6 and older
Cylert*	pemoline	6 and older
Dexedrine	dextroamphetamine	3 and older
Dextrostat	dextroamphetamine	3 and older
Focalin	dexmethylphenidate	6 and older
Metadate ER	methylphenidate (extended release)	6 and older
Ritalin	methylphenidate	6 and older

*Because of its potential for serious side effects affecting the liver, Cylert should not ordinarily be considered as first-line drug therapy for ADHD.

Non-Stimulate for ADHD

Stratera	atomoxetine	6 and older
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Antidepressant and Antianxiety Medications

Anafranil	clomipramine	10 and older (for OCD)
BuSpar	buspirone	18 and older
Effexor	venlafaxine	18 and older
Luvox (SSRI)	fluvoxamine	8 and older (for OCD)
Paxil (SSRI)	paroxetine	18 and older
Prozac (SSRI)	fluoxetine	18 and older
Serzone (SSRI)	nefazodone	18 and older
Sinequan	doxepin	12 and older
Tofranil	imipramine	6 and older (for bedwetting)
Wellbutrin	bupropion	18 and older
Zoloft (SSRI)	sertraline	6 and older (for OCD)

CHILDREN'S MEDICATION CHART (cont'd)

NIH Publication No. 02-3929

<http://www.nimh.nih.gov/publicat/medicate.cfm>

Antipsychotic Medications

Clozaril (atypical)	clozapine	18 and older
Haldol	haloperidol	3 and older
Risperdal (atypical)	risperidone	18 and older
Seroquel (atypical)	quetiapine	18 and older
Mellaril	thioridazine	2 and older
Zyprexa (atypical)	olanzapine	18 and older
Orap	pimozide	12 and older (for Tourette's syndrome -- Data for age 2 and older indicate similar safety profile)

Mood Stabilizing Medications

Cibalith-S	lithium citrate	12 and older
Depakote	valproic acid	2 and older (for seizures)
Eskalith	lithium carbonate	12 and older
Lithobid	lithium carbonate	12 and older
Tegretol	carbamazepine	any age (for seizures)

Excerpt from U.S. Food and Drug Administration (2007)

<http://www.fda.gov/bbs/topics/NEWS/2007/NEW01624.html>

FDA Proposes New Warnings About Suicidal Thinking, Behavior in Young Adults Who Take Antidepressant Medications

The U.S. Food and Drug Administration (FDA) today proposed that makers of all antidepressant medications update the existing black box warning on their products' labeling to include warnings about increased risks of suicidal thinking and behavior, known as suicidality, in young adults ages 18 to 24 during initial treatment (generally the first one to two months).

The proposed labeling changes also include language stating that scientific data did not show this increased risk in adults older than 24, and that adults ages 65 and older taking antidepressants have a decreased risk of suicidality. The proposed warning statements emphasize that depression and certain other serious psychiatric disorders are themselves the most important causes of suicide.

Revisions to Medication Guide

Medication Guide Antidepressant Medicines, Depression and other Serious Mental Illnesses, and Suicidal Thoughts or Actions

Read the Medication Guide that comes with you or your family member's antidepressant medicine. This Medication Guide is only about the risk of suicidal thoughts and actions with antidepressant medicines. **Talk to your, or your family member's, healthcare provider about:**

- all risks and benefits of treatment with antidepressant medicines
- all treatment choices for depression or other serious mental illness

What is the most important information I should know about antidepressant medicines, depression and other serious mental illnesses, and suicidal thoughts or actions?

- 1. Antidepressant medicines may increase suicidal thoughts or actions in some children, teenagers, and young adults when the medicine is first started.**
- 2. Depression and other serious mental illnesses are the most important causes of suicidal thoughts and actions. Some people may have a particularly high risk of having suicidal thoughts or actions.** These include people who have (or have a family history of) bipolar illness (also called manic-depressive illness) or suicidal thoughts or actions.
- 3. How can I watch for and try to prevent suicidal thoughts and actions in myself or a family member?**
 - Pay close attention to any changes, especially sudden changes, in mood, behaviors, thoughts, or feelings. This is very important when an antidepressant medicine is first started or when the dose is changed.
 - Call the healthcare provider right away to report new or sudden changes in mood, behavior, thoughts, or feelings.
 - Keep all follow-up visits with the healthcare provider as scheduled. Call the healthcare provider between visits as needed, especially if you have concerns about symptoms.

Call a healthcare provider right away if you or your family member has any of the following symptoms, especially if they are new, worse, or worry you:

- thoughts about suicide or dying
- attempts to commit suicide
- new or worse depression
- new or worse anxiety
- feeling very agitated or restless
- panic attacks
- trouble sleeping (insomnia)
- new or worse irritability
- acting aggressive, being angry, or violent
- acting on dangerous impulses
- an extreme increase in activity and talking (mania)
- other unusual changes in behavior or mood

What else do I need to know about antidepressant medicines?

- **Never stop an antidepressant medicine without first talking to a healthcare provider.** Stopping an antidepressant medicine suddenly can cause other symptoms.
- **Antidepressants are medicines used to treat depression and other illnesses.** It is important to discuss all the risks of treating depression and also the risks of not treating it. Patients and their families or other caregivers should discuss all treatment choices with the healthcare provider, not just the use of antidepressants.
- **Antidepressant medicines have other side effects.** Talk to the healthcare provider about the side effects of the medicine prescribed for you or your family member.
- **Antidepressant medicines can interact with other medicines.** Know all of the medicines that you or your family member takes. Keep a list of all medicines to show the healthcare provider. Do not start new medicines without first checking with your healthcare provider.
- **Not all antidepressant medicines prescribed for children are FDA approved for use in children.** Talk to your child's healthcare provider for more information.

This Medication Guide has been approved by the U.S. Food and Drug Administration for all antidepressants.

PSYCHOTROPIC MEDICATIONS
CATEGORIZED BY CHILD /ADOLESCENT DIAGNOSIS*

Attention Deficit-Hyperactivity Disorder (ADHD)
Medication Types and Treatment Effects

This chart provides some brief information on psychotropic medications frequently prescribed for students. The medications are listed with respect to the diagnosis that leads to their prescription. For more information, see the *Physicians Desk Reference*.



A. *Stimulants*

Used as one part of a total treatment regimen that typically includes other remedial measures (psychological, educational, social) to address a behavioral syndrome characterized in terms of developmentally inappropriate symptoms including moderate- to-severe distractibility, short attention span, hyperactivity, emotional lability, and impulsivity. Stimulants are used with youngsters six years and older to improve attention span and decrease hyperactivity and impulsivity.

B. *Antidepressants*

Anti-depressants such as imipramine are approved for use in treating symptoms of depression in adolescents and adults. Use with children is restricted to treatment of enuresis of those at least 6 years old. Manufacturers state that a maximum dose of 2.5 mg/kg should not be exceeded in children (PDR, 1997). Although imipramine does not have FDA approval for use in ADHD, some clinicians consider it the next drug of choice for those not responding to stimulants; thus they prescribe it to improve mood and decrease hyperactivity. The effects usually are sedating and do not appear to improve concentration (Green, 1995). There has been considerable interest in using selective serotonin reuptake inhibitors (SSRIs), particularly Prozac, in treating ADD and/or depression or anxiety in children and adolescents. However, no major research finding supports such use in treating ADD. The Physician's Desk Reference states "safety and effectiveness in pediatric patients has not been established."

C. *Adenergic antagonists*

These are centrally acting antihypertensive agents. The only therapeutic indication that has been approved by the FDA for advertising is treatment of hypertension in older adolescents and adults; its safety and efficacy in children have not been established. Some physicians regard adenergic antagonists such as clonidine as a possible alternative treatment for ADHD for those who do not respond well or who develop severe negative side effects when using stimulants (Green, 1995).

*Be aware: A significant number of psychotropic medications have not been specifically approved by the Federal Drug Enforcement Agency for use with children and adolescents. They are included here for information purposes only. Other less common medications are not cited but can be found in the Physician's Desk Reference, as can more information on side effects and controversies. Also keep in mind: Because many side effects are not predictable, all psychotropic medication requires careful, ongoing monitoring of psychological and physical conditions. Pulse, blood pressure, and signs of allergic reactions need to be monitored frequently, and when medication is taken for prolonged periods, periodic testing of hematological, renal, hepatic, and cardiac functions are essential. Prior to any other physical treatment (surgery, dentistry, etc.), it is important to inform physicians/dentists that psychotropic medication is being taken. Finally, common side effects of many medications are drowsiness/insomnia and related factors that can interfere with effective school performance.

***Attention Deficit-Hyperactivity Disorder (ADHD)
Medication Types and Treatment Effects***

Names: Generic (Commercial)	Some Side Effects and Related Considerations
<i>A. Stimulants</i>	
methylphenidate hydrochloride [Ritalin, Concerta – time release]	<p>May manifest nervousness, dizziness, insomnia or drowsiness, tics, palpitations, loss of appetite, nausea, dermatitis, mood changes, growth suppression.</p> <p>If loss of appetite is a problem, administration of medication is recommended after meals. The last dose for a day is to be taken before 6 p.m. to prevent, insomnia. Discontinuation is recommended if no improvement in one month. Periodic drug-free periods are recommended to assess efficacy.</p>
dextroamphetamine sulfate [Dexedrine, Femdex, Dexampex, Adderall]	<p>May manifest restlessness, nervousness, hyperactivity, dizziness, insomnia, unusual fatigue, headache, palpitations, loss of appetite, weight loss, nausea, dry mouth, mood changes, hypersensitivity.</p> <p>The last dose for a day is to be taken before 6 p.m. to prevent insomnia. Periodic reductions in dosage or drug-free periods are recommended to assess efficacy. Gradual discontinuation is recommended if the medication has been used for a long-period.</p>
magnesium pemoline [Cylert]	<p>May manifest dizziness, irritability, insomnia, fatigue, tics, loss of appetite, nausea, weight loss, mild depression, seizures headache, abdominal discomfort. Long-term use may affect the liver and can produce physical and psychological dependence.</p> <p>Administration of medication is recommended for the morning to avoid insomnia. Periodic reductions in dosage or drug-free periods are recommended to assess efficacy. Liver function studies are recommended for long-term users.</p>
<i>B. Anti-depressants</i>	
imipramine hydrochloride [Tofranil]	<p>May manifest sedation, drowsiness, dizziness, headache, nausea, fatigue, dry mouth, constipation, heartburn, excessive weight gain, rash, excessive sweating, photosensitivity.</p> <p>Youngster is to move slowly from sitting or lying down positions. Care must be taken to minimize exposure to strong sun. Gradual discontinuation is recommended if the medication has been used for a long period.</p>
<i>C AdenergicAntagonist</i>	
clonidine hyperchloride [Catapres]	<p>May manifest sedation, dizziness, headache, nausea, anxiety, restlessness, nightmares, dry mouth, weight gain, constipation.</p> <p>Sudden discontinuation may cause blood pressure to shoot up.</p>
Guanfacine [Tenex]	<p>Use may lead to tiredness, headaches, stomach aches, and decreased appetite. Not recommended under age 12 as safety and efficacy have not been proven.</p>

Medication Caution

(Excerpted from the National Institute of Mental Health: <http://www.nimh.nih.gov/publicat/adhd.cfm>)

• • • The Medication Debate

As useful as these drugs are, Ritalin and the other stimulants have sparked a great deal of controversy. Most doctors feel the potential side effects should be carefully weighed against the benefits before prescribing the drugs. While on these medications, some children may lose weight, have less appetite, and temporarily grow more slowly. Others may have problems falling asleep. Some doctors believe that stimulants may also make the symptoms of Tourette's syndrome worse, although recent research suggests this may not be true. Other doctors say if they carefully watch the child's height, weight, and overall development, the benefits of medication far outweigh the potential side effects. Side effects that do occur can often be handled by reducing the dosage.

It's natural for parents to be concerned about whether taking a medicine is in their child's best interests. Parents need to be clear about the benefits and potential risks of using these drugs. The child's pediatrician or psychiatrist can provide advice and answer questions.

Another debate is whether Ritalin and other stimulant drugs are prescribed unnecessarily for too many children. Remember that many things, including anxiety, depression, allergies, seizures, or problems with the home or school environment can make children seem overactive, impulsive, or inattentive. Critics argue that many children who do not have a true attention disorder are medicated as a way to control their disruptive behaviors. Careful assessment and ongoing monitoring by a mental health professional may help to counter these concern. • • •

FDA Approves Non-Stimulant ADHD Drug

<http://www.fda.gov/bbs/topics/ANSWERS/2002/ANS01177.html>

November 26, 2002 Food and Drug Administration

The Food and Drug Administration has approved -- Strattera, (atomoxetine) -- the first new drug in three decades for treatment of symptoms of attention deficit hyperactivity disorder, or ADHD, which includes inattention, hyperactivity and impulsiveness. Strattera has a different mechanism of action from the stimulant-like drugs that have been used to treat ADHD. Because Strattera does not appear to have a potential for abuse, it will not be classified as a controlled substance, although it will be a prescription drug.

Strattera was studied in children, adolescents and adults. The drug's safety and effectiveness were established in six double-blind placebo-controlled studies in patients who met specific diagnostic criteria under DSM-IV. The clinical studies demonstrated that Strattera significantly improves patient's symptoms compared to placebo.

Side effects of the drug include decreased appetite, upset stomach, nausea or vomiting and tiredness. In addition to these adverse effects, some of the most common side effects in adults were problems sleeping, dry mouth, dizziness, and sexual side effects.

PSYCHOTROPIC MEDICATIONS
CATEGORIZED BY CHILD /ADOLESCENT DIAGNOSIS*

***Conduct Disorder
Medication Types and Treatment Effects***



This chart provides some brief information on psychotropic medications frequently prescribed for students. The medications are listed with respect to the diagnosis that leads to their prescription. For more information, see the *Physicians Desk Reference*.

(There continues to be controversy over whether medication is indicated for this diagnosis. However, because it is prescribed widely for such cases, it is included here.)

A. Anti-psychotics

Used to treat severe behavioral problems in children marked by combativeness and/or explosive hyperexcitable behavior (out of proportion to immediate provocations). Also used in short-term treatment of children diagnosed with conduct disorders who show excessive motor activity impulsivity, difficulty sustaining attention, aggressiveness, mood lability and poor frustration tolerance.

B. Anti-manic

Used to reduce the frequency and intensity of manic episodes. Typical symptoms of mania include pressure of speech, motor hyperactivity, reduced need for sleep, flight of ideas, grandiosity, or poor judgement, aggressiveness, and possible hostility.

C. Beta-adenergetic antagonists

Although primarily used in controlling hypertension and cardiac problems, beta-adenergetic antagonists such as propranolol hydrochloride are used to reduce somatic symptoms of anxiety such as palpitations, tremulousness, perspiration, and blushing. In some studies, propranolol is reported as reducing uncontrolled rage outbursts and/or aggressiveness among children and adolescents (Green, 1995).

*Because many side effects are not predictable, all psychotropic medication requires careful, ongoing monitoring of psycho-

*Be aware: A significant number of psychotropic medications have not been specifically approved by the Federal Drug Enforcement Agency for use with children and adolescents. They are included here for information purposes only. Other less common medications are not cited but can be found in the Physician's Desk Reference, as can more information on side effects and controversies. Also keep in mind: Because many side effects are not predictable, all psychotropic medication requires careful, ongoing monitoring of psychological and physical conditions. Pulse, blood pressure, and signs of allergic reactions need to be monitored frequently, and when medication is taken for prolonged periods, periodic testing of hematological, renal, hepatic, and cardiac functions are essential. Prior to any other physical treatment (surgery, dentistry, etc.), it is important to inform physicians/dentists that psychotropic medication is being taken. Finally, common side effects of many medications are drowsiness/insomnia and related factors that can interfere with effective school performance.

Conduct Disorder
Medication Types and Treatment Effects

Names: Generic (Commercial)	Some Side Effects and Related Considerations
<i>A. Anti-psychotics</i>	
thioridazine hydrochloride [Mellaril, Mellaril-S]	May manifest sedation, drowsiness, dizziness, fatigue, weight gain, blurred vision, rash, dermatitis, extrapyramidal syndrome (e.g . pseudo-Parkinson, Tardive dyskinesia, hyperactivity), respiratory distress, constipation, photosensitivity.
chlorpromazine hydrochloride [Thorazine; Thor-Pram]	Medication is to be taken with food or a full glass of water or milk. Care to avoid contact with skin because of the danger of contact dermatitis. Gradual discontinuation is recommended. Drowsiness can be reduced with decreased dosages. Youngster is to move slowly from sitting or lying down positions. Care must be taken to minimize exposure to strong sun.
haloperidol [Haldol]	May manifest insomnia, restlessness, fatigue, weight gain, dry mouth, constipation, extrapyramidal reactions (e.g., pseudo-Parkinson, Tardive dyskinesia, dystonia, muscle spasms in neck and back, trembling hands), blurred vision, photosensitivity, decreased sweating leading to overheating. menstrual irreg. Avoid sun and overheating. Discontinue gradually.
<i>B. Anti-manic</i>	
lithium carbonate/citrate [Lithium, Lithane, Lithobid, Lithotabs, Lithonate, Eskalith Cibalith]	Safety and effectiveness have not been established for those under 15 years of age. May manifest tremor, drowsiness, dizziness, nausea, vomiting, fatigue, irritability, clumsiness, slurred speech, diarrhea, increased thirst, excessive weight gain, acne, rash. Serum levels must be monitored carefully because of therapeutic dose is close to toxic level. Care must be taken to maintain normal fluid and salt levels
<i>C. Beta-adenergic antagonists</i>	
propranolol hydrochloride [Inderal]	May manifest sleep disturbance, drowsiness, confusion, depression, light headedness, nausea, vomiting, fatigue, dry mouth, heartburn, weight gain, leg fatigue. Administer before meals and bed. Avoid having extremities exposed to cold for long periods. Discontinue gradually over a two week period.

PSYCHOTROPIC MEDICATIONS
CATEGORIZED BY CHILD /ADOLESCENT DIAGNOSIS*

Tourette's Syndrome
Medication Types and Treatment Effects



This chart provides some brief information on psychotropic medications frequently prescribed for students. The medications are listed with respect to the diagnosis that leads to their prescription. For more information, see the *Physicians Desk Reference*.

A. Adenergetic antagonists

A centrally acting antihypertensive agent. The only therapeutic use approved by the FDA for advertising is treatment of hypertension in older adolescents and adults; safety and efficacy in children not established. In some studies, adenergetic antagonists such as clonidine are reported to ameliorate oppositional, confrontative, and obsessive-compulsive behaviors and symptoms of ADHD and Tourettes when also present. Currently regarded as a possible treatment for Tourette's disorder for those who not responding satisfactorily or having intolerable untoward effects to standard treatments.

B. Anti-psychotics

Used to suppress motor tics and vocal utterances of children and adults whose development and/or daily life function is severely compromised by their presence and who fail to respond satisfactorily to standard treatment. Not intended as a treatment of first choice nor for the treatment of tics that are merely annoying or cosmetically troublesome.

*Be aware: A significant number of psychotropic medications have not been specifically approved by the Federal Drug Enforcement Agency for use with children and adolescents. They are included here for information purposes only. Other less common medications are not cited but can be found in the Physician's Desk Reference, as can more information on side effects and controversies. Also keep in mind: Because many side effects are not predictable, all psychotropic medication requires careful, ongoing monitoring of psychological and physical conditions. Pulse, blood pressure, and signs of allergic reactions need to be monitored frequently, and when medication is taken for prolonged periods, periodic testing of hematological, renal, hepatic, and cardiac functions are essential. Prior to any other physical treatment (surgery, dentistry, etc.), it is important to inform physicians/dentists that psychotropic medication is being taken. Finally, common side effects of many medications are drowsiness/insomnia and related factors that can interfere with effective school performance.

Tourette's Syndrome
Medication Types and Treatment Effects

Names: Generic (Commercial)	Some Side Effects and Related Considerations
<i>A. Adenergic antagonists</i>	
clonidine hydrochloride [Catapres, Catapres -TTS]	May manifest sedation, dizziness, anxiety, restlessness, nightmares, headache nausea, dry mouth, weight gain, constipation. Discontinue gradually to avoid sudden rebound of blood pressure. Care must be taken when transdermal system is used to apply in different areas of skin.
Guanfacine [Tenex]	Use may lead to tiredness, headaches, stomach aches, and decreased appetite. Not recommended for children under age 12 as safety and efficacy have not been proven.
<i>B. Anti-psychotics</i>	
haloperidol lactate [Haldol]	May manifest insomnia, restlessness, fatigue, weight gain, dry mouth, constipation, extrapyramidal reactions (e.g., pseudo-Parkinson, tardive dyskinesia, dystonia, muscle spasms in back, trembling hands), blurred vision, photosensitivity, decreased sweating leading to overheating, menstrual irregularity. Avoid sun and overheating. Discontinue gradually.
Pimozide [Orap]	Only to be used in extreme cases. May manifest irritability, restlessness, drowsiness, dizziness, difficulty speaking and swallowing, tremor, akinesia, dry mouth, constipation, rash, itchiness. Discontinue gradually.

PSYCHOTROPIC MEDICATIONS
CATEGORIZED BY CHILD /ADOLESCENT DIAGNOSIS*

***Pervasive Developmental Disorders
Medication Types and Treatment Effects***



This chart provides some brief information on psychotropic medications frequently prescribed for students. The medications are listed with respect to the diagnosis that leads to their prescription. For more information, see the *Physicians Desk Reference*.

(There continues to be controversy over whether medication is indicated for this diagnosis. However, because it is prescribed widely for such cases, it is included here.)

A. Anti-psychotics

Used for treatment of severe behavioral problems in children marked by combativeness and/or explosive hyperexcitable behavior (out of proportion to immediate provocations). Also used in short-term treatment of children who show excessive motor activity with accompanying conduct disorders consisting of some or all of the following symptoms: impulsivity, difficulty sustaining attention, aggressivity, mood lability and poor frustration tolerance.

B. Stimulants

Have been found to be helpful in the treatment of hyperactivity in autism.

C. Opiate antagonists

Are regarded as potentially useful agents in reducing endorphins in a subgroup of autistic children who have elevated endorphin (opiod peptides) levels.

*Be aware: A significant number of psychotropic medications have not been specifically approved by the Federal Drug Enforcement Agency for use with children and adolescents. They are included here for information purposes only. Other less common medications are not cited but can be found in the Physician's Desk Reference, as can more information on side effects and controversies. Also keep in mind: Because many side effects are not predictable, all psychotropic medication requires careful, ongoing monitoring of psychological and physical conditions. Pulse, blood pressure, and signs of allergic reactions need to be monitored frequently, and when medication is taken for prolonged periods, periodic testing of hematological, renal, hepatic, and cardiac functions are essential. Prior to any other physical treatment (surgery, dentistry, etc.), it is important to inform physicians/dentists that psychotropic medication is being taken. Finally, common side effects of many medications are drowsiness/insomnia and related factors that can interfere with effective school performance.

***Pervasive Developmental Disorders
Medication Types and Treatment Effects***

Names: Generic (Commercial)	Some Side Effects and Related Considerations
<i>A. Anti-psychotics</i>	
Risperidone, Risperdal	Lethargy/sleepiness, low blood pressure, dry mouth, blurred vision, constipation, weight gain, difficulty urinating, nasal irritation/stiffness, or stiffness.
Haloperidol [Haldol]	Akathisia, akinesia, lethargy/sleepiness, low blood pressure, dry mouth, blurred vision, constipation, weight gain, difficulty urinating, or stiffness.
chlorpromazine hydrochloride [Thorazine; Thor-Pram]	Lethargy/sleepiness, low blood pressure, dry mouth, blurred vision, constipation, weight gain, difficulty urinating, or stiffness.
trifluoperazine hydrochloride [Stelazine]	Lethargy/sleepiness, low blood pressure, dry mouth, blurred vision, constipation, weight gain, difficulty urinating, or stiffness.
thioridazine hydrochloride [Mellaril Mellaril-S]	Lethargy/sleepiness, low blood pressure, dry mouth, blurred vision, constipation, weight gain, difficulty urinating, or stiffness.
<i>B. Stimulants</i>	
methylphenidate hydrochloride [Ritalin, Concerta]	<p>May manifest nervousness, dizziness, insomnia or drowsiness, tics, palpitations, loss of appetite, nausea, dermatitis, mood changes, growth suppression.</p> <p>If loss of appetite is a problem, administration of medication is recommended after meals. The last dose for a day is to be taken before 6 p.m. to prevent, insomnia. Discontinuation is recommended if no improvement in one month. Periodic drug-free periods are recommended to assess efficacy.</p>
<i>C. Opiate antagonist</i>	
naltrexone hydrochloride [Trexan]	Used with autistic children with elevated endorphin levels. May manifest insomnia, nightmares, anxiety, nervousness, depression, headache, changes in energy level, dry mouth, nausea, increased thirst, vomiting, cramps, runny nose or nasal congestion, blurred vision, rash, liver function problems.

Excerpt:

Pharmacotherapeutic management of autism

Expert Opinion Pharmacotherapy 2001 April 2,(4):587-600

There are no medications that are specifically marketed for the treatment of autism. There does exist, however, an extensive body of literature describing both open-label and controlled studies of medications in the treatment of both children and adults with autism. Some of the better-studied medications (including haloperidol and risperidone) are often efficacious in treating associated symptoms of autism but can also cause unacceptable adverse effects. Early studies of serotonin re-uptake inhibitors appear promising but may not be indicated for all age groups. Small, controlled studies of methylphenidate and clonidine indicate a possible role for these medications in the treatment of hyperactivity in autism.

PSYCHOTROPIC MEDICATIONS
CATEGORIZED BY CHILD /ADOLESCENT DIAGNOSIS*

Bipolar Disorder
Medication Types and Treatment Effects



This chart provides some brief information on psychotropic medications frequently prescribed for students. The medications are listed with respect to the diagnosis that leads to their prescription. For more information, see the *Physicians Desk Reference*.

A. Anti-manic

Used to reduce frequency and intensity of manic episodes. Typical symptoms of mania include pressure of speech, motor hyperactivity, reduced need for sleep, flight of ideas, grandiosity, poor judgement, aggressiveness, and possibly hostility.

B. Anti-convulsant

Approved to treat various seizure types among those at least 6 years of age. Carbamazepine is regarded as most beneficial for persons diagnosed with partial seizures with complex symptomatology (psychomotor or temporal lobe), but those with generalized tonic-clonic seizures or a mixed seizure pattern also may benefit (Green, 1995)

References

Green, W. H. (1995). Child and adolescent clinical psychopharmacology. Baltimore, MD: Williams & Wilkins.
Physicians' Desk Reference (2000). Montvale, NJ: Medical Economics Data Production Co

*Be aware: A significant number of psychotropic medications have not been specifically approved by the Federal Drug Enforcement Agency for use with children and adolescents. They are included here for information purposes only. Other less common medications are not cited but can be found in the Physician's Desk Reference, as can more information on side effects and controversies. Also keep in mind: Because many side effects are not predictable, all psychotropic medication requires careful, ongoing monitoring of psychological and physical conditions. Pulse, blood pressure, and signs of allergic reactions need to be monitored frequently, and when medication is taken for prolonged periods, periodic testing of hematological, renal, hepatic, and cardiac functions are essential. Prior to any other physical treatment (surgery, dentistry, etc.), it is important to inform physicians/dentists that psychotropic medication is being taken. Finally, common side effects of many medications are drowsiness/insomnia and related factors that can interfere with effective school performance.

Bipolar Disorder
Medication Types and Treatment Effects

Names: Generic (Commercial)	Some Side Effects and Related Considerations
<i>A. Anti-manic</i>	
lithium carbonate/citrate [Lithium, Lithane, Lithobid, ithotabs, Lithonate, Eskalith Cibalith	<p>Safety and effectiveness have not been established for those under 15 years of age. May manifest tremor, drowsiness, dizziness, nausea, vomiting, fatigue, irritability, clumsiness, slurred speech, diarrhea. increased thirst, excessive weight gain, acne, rash.</p> <p>Serum levels must be monitored carefully because of therapeutic dose is close to toxic level. Care must be taken to maintain normal fluid and salt levels. Kidney and urine tests needed to avoid damage to kidneys.</p>
<i>B. Anti-convulsants</i>	
Carbamazepine [Tegretol, Mazepine, Eptol]	<p>May manifest drowsiness, dizziness, fatigue, coordination problems, respiratory depression, edema, nausea, vomiting, hepatitis, nystagmus, and various negative effects associated with tricyclic antidepressants.</p> <p>Parents are instructed to withhold and notify physician immediately if signs of toxicity (e.g., anorexia, fever, unusual fatigue, bruising, bleeding). Females using oral contraceptives are informed that reliability of contraceptive may be reduced.</p>
Valproic acid [Depakene]	<p>Most serious side effect is hepatic failure which can be fatal. It occurs most frequently within the first six months of treatment. Children under two years of age are at increased risk; the risk of hepatotoxicity decreases considerably as patients become progressively older. Hence, liver function must be monitored carefully and frequently, especially during the first six months.</p> <p>Nausea, vomiting, and indigestion may occur early in treatment and usually are transient. Sedation may occur, and untoward psychiatric effects such as emotional upset, depression, psychosis, aggression, hyperactivity, and behavioral deterioration have been reported.</p>

The preceding charts provide a brief perspective on many psychotropic medications. As can be seen below, many other common diagnoses use the same medications:

Diagnosis	Medication
Major depression/dysthymia	<p><i>Tricyclic antidepressants:</i> Imipramine [Tofranil, Janimine] Imipramine pamoate [Tofranil-PM] Nortriptyline hydrochloride [Pamelor, Aventyl] Amitriptyline hydrochloride [Elavil, Endep, Elovil] Desipramine hydrochloride [Norpramin, Pertofrane] Clomipramine hydrochloride [Anafranil]</p> <p><i>Other anti-depressants:</i> Fluoxetine [Prozac] Bupropion hydrochloride [Wellbutrin] Sertraline hydrochloride [Zoloft] Trazodone [Dysrel]</p>
Anxiety Disorders	<p><i>Anti-depressants</i> Imipramine [Tofranil, Janimine]</p> <p><i>Anxiolytics</i> Buspirone hydrochloride [BuSpar] Chlordiazepoxide [Librium] Alprazolam [Xanax]</p> <p><i>Anti-histamines</i> Diphenhydramine [Benadryl] Hydroxyzine hydrochloride [Atarax] Hydroxyzine pamoate [Vistaril]</p>
School Phobia	<p><i>Anti-depressants</i> Imipramine [Tofranil, Janimine]</p> <p><i>Anxiolytics</i> Buspirone hydrochloride [BuSpar] Chlordiazepoxide [Librium] Alprazolam [Xanax]</p>
Obsessive-Compulsive Disorder	<p><i>Anti-depressants:</i> Fluoxetine [Prozac] Clomipramine hydrochloride [Anafranil]</p>
Functional Enuresis	<p><i>Anti-depressants</i> Imipramine [Tofranil, Janimine] Imipramine pamoate [Tofranil-PM] Desipramine hydrochloride [Norpramin, Pertofrane]</p>
Schizophrenia	<p><i>Anti-psychotics</i> Clozapine [Clozaril] Loxapine succinate [Loxitane] Thiothixene [Navane]</p>

Medication and Anxiety Disorders
From the National Institute of Mental Health Website:
<http://www.nimh.nih.gov/publicat/>



The material has been abridged for use here to highlight information about psychotropic medication frequently prescribed for children and adolescents.

Individuals with anxiety disorders may feel anxious most of the time, without any apparent reason. Or the anxious feelings may be so uncomfortable that to avoid them the individual may stop some everyday activities. Some individuals have occasional bouts of anxiety so intense they terrify and immobilize them.

Anxiety disorders are the most common of all the mental disorders. At the National Institute of Mental Health (NIMH)--the Federal agency that conducts and supports research related to mental disorders, mental health, and the brain--scientists are learning more and more about the nature of anxiety disorders, their causes, and how to alleviate them. NIMH also conducts educational outreach activities about anxiety disorders and other mental illnesses.

Generalized Anxiety Disorder

Generalized anxiety disorder (GAD) is much more than the normal anxiety people experience day to day. It is characterized as chronic and exaggerated worry and tension, even though nothing seems to provoke it. Having this disorder means always anticipating disaster, often worrying excessively about health, money family or work. Sometimes, though, the source of the worry is hard to pinpoint. Simply the thought of getting through the day provokes anxiety.

Panic Disorder

People with panic disorder have feelings of terror that strike suddenly and repeatedly with no warning. They can't predict when an attack will occur, and many develop intense anxiety between episodes, worrying when and where the next one will strike. In between times there is a persistent, lingering worry that another attack could come any minute.

Panic disorder is often accompanied by other conditions such as depression or alcoholism, and may spawn phobias, which can develop in places or situations where panic attacks have occurred. For example, if a panic attack strikes while you're riding an elevator, you may develop a fear of elevators and perhaps start avoiding them. Some people find the greatest relief from panic disorder symptoms when they take certain prescription medications. Such medications, like cognitive-behavioral therapy, can help to prevent panic attacks or reduce their frequency and severity. Two types of medications that have been shown to be safe and effective in the treatment of panic disorder are antidepressants and benzodiazepines.

Medication and Anxiety Disorders... continued

From the National Institute of Mental Health Website:

<http://www.nimh.nih.gov/publicat/>

Phobias

Phobias occur in several forms. A specific phobia is a fear of a particular object or situation. Social phobia is a fear of being painfully embarrassed in a social setting. And agoraphobia, which often accompanies panic disorder, is a fear of being in any situation that might provoke a panic attack, or from which escape might be difficult if one occurred.

About 80 percent of people who suffer from social phobia find relief from their symptoms when treated with cognitive-behavioral therapy or medications or a combination of the two. Therapy may involve learning to view social events differently; being exposed to a seemingly threatening social situation in such a way that it becomes easier to face; and learning anxiety-reducing techniques, social skills, and relaxation techniques. The medications that have proven effective include antidepressants called MAO inhibitors. People with a specific form of social phobia called performance phobia have been helped by drugs called beta-blockers. For example, musicians or others with this anxiety may be prescribed a beta-blocker for use on the day of a performance.

Obsessive-Compulsive Disorder

Obsessive-compulsive disorder is characterized by anxious thoughts or rituals you feel you can't control. If you have OCD, as it's called, you may be plagued by persistent, unwelcome thoughts or images, or by the urgent need to engage in certain rituals.

Research by NIMH-funded scientists and other investigators has led to the development of medications and behavioral treatments that can benefit people with OCD. A combination of the two treatments is often helpful for most patients. Some individuals respond best to one therapy, some to another. Two medications that have been found effective in treating OCD are clomipramine and fluoxetine.

Post-Traumatic Stress Disorder

Post-Traumatic Stress Disorder (PTSD) is a debilitating condition that follows a terrifying event. Often, people with PTSD have persistent frightening thoughts and memories of their ordeal and feel emotionally numb, especially with people they were once close to. PTSD, once referred to as shell shock or battle fatigue, was first brought to public attention by war veterans, but it can result from any number of traumatic incidents.

Antidepressants and anxiety-reducing medications can ease the symptoms of depression and sleep problems, and psychotherapy, including cognitive-behavioral therapy, is an integral part of treatment. Being exposed to a reminder of the trauma as part of therapy -- such as returning to the scene of a rape -- sometimes helps. And, support from family and friends can help speed recovery.

PSYCHOTROPIC MEDICATIONS
CATEGORIZED BY CHILD /ADOLESCENT DIAGNOSIS*



Medication and Anxiety Disorders... continued

Adapted from The Ohio State University Anxiety and Stress Disorders Clinic website
(<http://anxiety.psy.ohio-state.edu/medicati.htm>)

Names: Generic (Commercial)	Some Side Effects and Related Considerations
<p>Benzodiazepines: (Ativan, Centrax, Klonopin, Librium, Paxipam, Serax, Tranxene, xanax, Xanax)</p>	<p><i>Used in the treatment of GAD, Panic disorders and Social Phobias:</i> Potentially habit-forming; can cause drowsiness.</p>
<p>Beta Blockers: (Inderal, Tenormin)</p>	<p><i>Used in the treatment of Social Phobias:</i> Should not be used with certain pre-existing medical conditions such as asthma, congestive heart failure, diabetes, vascular disease, hyperthyroidism, and angina pectoris.</p>
<p>Azaspiroines: (BuSpar)</p>	<p><i>Used in the treatment of GAD</i> Works slowly; Can't switch from benzodiazepines immediately</p>
<p>Monoamine Oxidase Inhibitors (MAOIs): (Eldepryl, Eutonyl, Marplan, Nardil, Parnate)</p>	<p><i>Used in the treatment of Panic Disorders, Social Phobias, PTSD, OCD</i> Strict dietary restrictions and potential drug interactions; low blood pressure, moderate weight gain, reduced sexual response, insomnia.</p>
<p>Serotonin Reuptake Inhibitors (SRIs): (Desyrel, Prozac, Paxil, Zoloft, Serzone, Luvox, Effexor)</p>	<p><i>Used for Panic Disorders, OCD, Social Phobia</i> Nausea; some can cause nervousness</p>
<p>Tricyclic Antidepressants (TCAs): (Adapin, Sinequan, Janimine, Vivactil, Elavil, Pertofrane, Tofranil, Pamelor, Anafranil, Sermontil, Ludiomil)</p>	<p><i>Used in the treatment of Panic Disorders, PTSD, OCD</i> Dry mouth, constipation, blurry vision, difficulty urinating, dizziness, low blood pressure; moderate weight gain.</p>

*Be aware: A significant number of psychotropic medications have not been specifically approved by the Federal Drug Enforcement Agency for use with children and adolescents. They are included here for information purposes only. Other less common medications are not cited but can be found in the Physician's Desk Reference, as can more information on side effects and controversies. Also keep in mind: Because many side effects are not predictable, all psychotropic medication requires careful, ongoing monitoring of psychological and physical conditions. Pulse, blood pressure, and signs of allergic reactions need to be monitored frequently, and when medication is taken for prolonged periods, periodic testing of hematological, renal, hepatic, and cardiac functions are essential. Prior to any other physical treatment (surgery, dentistry, etc.), it is important to inform physicians/dentists that psychotropic medication is being taken. Finally, common side effects of many medications are drowsiness/insomnia and related factors that can interfere with effective school performance.

Excerpt:

Pharmacotherapy of social anxiety disorder

Biol Psychiatry 2002 Jan 1; 51(1):109-20

Over the last few years, a number of medications have demonstrated their efficacy in the acute treatment of social anxiety disorder. At present, selective serotonin reuptake inhibitors probably constitute the first line treatment, based on their safety, tolerability, and efficacy in the treatment of social anxiety disorder and common comorbid conditions...

Future research directions should include delineating ways to achieve remission (as opposed to response); developing strategies for augmenting partial responders and treating nonresponders to first line approaches; studying the long-term response to medication and prevention of relapse when medication is discontinued; clarifying ways to integrate psychosocial and pharmacological treatment approaches; developing predictors of which patients do best with which treatments; and the treatment of social anxiety disorder in children and adolescents.

Asthma and Epilepsy Medications May Affect Classroom Behavior

From *Understanding and managing children's classroom behavior* (1995).

M. Goldstein, and colleagues. New York: John Wiley & Sons, Inc.

Asthma Medications

Theophylline

Two medications commonly used to treat asthma, theophylline and cortisone derivations, have been studied extensively as to their effects on behavior. Earlier studies suggested that treating asthma with theophylline does not cause behavior and learning problems. Theophylline is one of the mainstays of asthma treatment. It works by helping to relax smooth muscle contractions that cause narrowing of the breathing tubes during an asthma attack. Most authors studying the behavioral effects of theophylline have found no changes in school performance. Based on a review of the literature, Duhamel and Furukawa (1989) suggested theophylline usage might be related with problems of visual spatial planning, concentration, hyperactivity, depression or anxiety. They concluded that theophylline does not play a major role in determining academic performance in children receiving treatment even when multiple medications are prescribed for the control of asthma

Oral Corticosteroids

Oral corticosteroids duplicate the normal adrenal hormone cortisone in higher dosage than the body normally produces. These medications decrease inflammation and are especially helpful in children when inflammation triggers the constriction of the breathing passages, producing symptoms of difficult breathing. Corticosteroids are used to treat asthma, arthritis, and allergies. Prednisone and methylprednisolone are some of the most commonly prescribed corticosteroids

At this time, it is not possible to determine from available, published research what effects oral corticosteroids such as prednisone and methylprednisolone will have on the behavior of a particular child. Again, consultants should make certain they are aware of all medications being prescribed to children targeted for behavior change in the classroom

Epilepsy Medications

Medications commonly prescribed to control epileptic seizures include phenobarbital (Luminal), carbamazepine (Tegretol), phenytoin (Dilantin), and valproate (Depakote). Teachers are rarely provided with sufficient information concerning epilepsy and its treatment. Based on interview data, Gadow (1982) concluded that teachers were often poorly informed of the overt features of seizures, side effects of medication, or seizure management. Even when dealing with students who experienced seizures or side effects at school, teachers were often poorly informed. In 70% of the children in this study, teachers were involved either in evaluating the response to treatment, administering medication, or managing and coping with seizures in the classroom. Side effects of these anticonvulsants are common. Over one third of the children in this study were rated as more drowsy or sleepy than their peers and according to teachers, drug-induced impairments in adaptive behavior were common problems

Children treated with phenobarbital for febrile seizures frequently develop a reversible pattern of hyperactivity. Often this problem includes irritability, tantrums, disobedience, lethargy, or insomnia. The behavioral effects appear unrelated to blood drug levels, and many of these children demonstrated behavioral problems prior to their initial convulsion. Some concern has been raised, however, that these effects, including low IQ, may not resolve after the medication is discontinued.

It has been commonly reported that mental slowing occurs with the treatment of valproate, phenytoin, and phenobarbital.



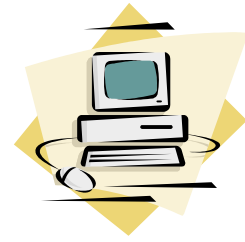
A Resource Aid Packet on
**Students and Psychotropic Medication:
The School's Role**

Section III

Places to Go for More Information & Support

- Internet Resources
- Centers, Agencies, and Advocacy Groups
- Selected References
- Materials developed by our Center
- Quick Find

A Resource Aid Packet on Students and Psychotropic Medication: The School's Role



Internet Resources on Students and Psychotropic Medication

ADHD Medication Fact Sheet

<http://www.uams.edu/add/adhdmed.htm>

Attention Deficit Hyperactivity Disorder: Medication Information

<http://www.focusonadd.com/medications.shtml>

Cardiovascular Monitoring of Children and Adolescents Receiving Psychotropic Drugs

<http://216.185.112.5/presenter.jhtml?identifier=1773>

General Children and Medication Resources

http://www.vachss.com/help_text/children_meds.html

Guide to Psychiatric Medications for Children and Adolescents

<http://www.aboutourkids.org/articles/guidetopsychmeds.html>

Mental Health: A Report of the Surgeon General

<http://www.surgeongeneral.gov/library/mentalhealth/home.html>

NIMH Research on Treatment for Attention Deficit Hyperactivity Disorder (ADHD): The Multimodal Treatment Study - Questions and Answers

<http://www.nimh.nih.gov/events/mtaqa.cfm>

Psychiatric Medication for Children and Adolescents Part I: How Medications are Used

Psychiatric Medication for Children and Adolescents Part II: Types of Medications

Psychiatric Medication for Children and Adolescents Part III: Questions to Ask

<http://www.aacap.org/publications/factsfam/>

Role for School Psychologists: Evaluating Medication Effects for Students with Attention Deficit/Hyperactivity.

<http://www.nasponline.org/publications/cq286ADDMeds.html>

Treatment of Children with Mental Disorders

<http://www.nimh.nih.gov/publicat/childqa.cfm>

Understanding How Psychiatric Medications Are Approved and Used for Children

<http://www.aboutourkids.org/articles/understandingmeds.html>

The Use of Psychotropic Medication to Treat Children's Mental Health Needs

<http://www.nmha.org/position/childrenandmedications.cfm>

Your Child and Medication

<http://www.nimh.nih.gov/publicat/childmed.cfm>



A Resource Aid Packet on **Students and Psychotropic Medication: The School's Role**

Centers, Agencies & Advocacy Groups

The following is a list of agencies and organizations and their websites that offer information and resources related to psychotropic medication on children and adolescents. This list is not comprehensive, but is meant to highlight some premier resources and serve as a beginning for your search. Oftentimes, the site will further link you to other relevant websites, centers, and/or organizations. *Updated 5/05*

About Our Kids.org www.aboutourkids.org/articles/guidetopsychmeds.html

Guide to Psychiatric Medications for Children and Adolescents

Guide from New York University's Child Study Center regarding types of medications, what they are prescribed for, and side effects; includes antipsychotics, antidepressants, stimulants and SSRIs.

American Academy of Child and Adolescent Psychiatry (AACAP) www.aacap.org

3615 Wisconsin Avenue, NW, Washington, DC 20016-3007

(202) 966-7300 / Fax: (202) 966-2891

This website contains award-winning series of fact sheets written to help children and their families on various mental health issues. In particular, it contains two articles entitled *Psychiatric Medication for Children* and *Questions To Ask About Psychiatric Medications for Children and Adolescents*. <http://www.aacap.org/publications/childMed/>

American Academy of Pediatrics www.aap.org

141 Northwest Point Blvd., Elk Grove Village, IL 60007-1098

Phone: (847) 434-4000 / Fax: (847) 434-8000

American Psychiatric Association www.psych.org

1000 Wilson Boulevard, Suite 1825, Arlington, Va. 22209-3901

(703) 907-7300

The American Psychiatric Association is a national medical specialty society whose 40,500 physician members specialize in the diagnosis and treatment of mental and emotional illnesses and substance use disorders.

Center for the Study of Autism (CSA) www.autism.org

P.O. Box 4538, Salem, OR 97302

The Center for the Study of Autism (CSA) provides information to parents and professionals through workshops, conferences, and articles. The Center is involved in numerous research studies including those on auditory integration training, Temple Grandin's 'Hug Box,' visual training, Irlen lenses, intelligence testing, and Asperger Syndrome.

Children and Adults with Attention Deficit Disorders (CHADD) www.chadd.org

8181 Professional Place, Suite 150, Landover, MD 20785

(800) 233-4050

This site contains an article entitled *Attention Deficit Disorder Beyond the Myths* published by Division of Innovation and Development Office of Special Education Programs Office of Special Education and Rehabilitative Services U.S. Department of Education

Children and Medication Resources www.vachss.com/help_text/children_meds.html

This site lists a series of articles and resources related to children and medication.

Healthfinder www.healthfinder.gov/orgs/HR2480.htm

P.O. Box 42257, Washington, DC 20015

An award-winning Federal Web site, developed by the U.S. Department of Health and Human Services together with other Federal agencies. Since 1997, Healthfinder has been recognized as a key resource for finding the best government and nonprofit health and human services information on the Internet. Healthfinder links to carefully selected information and Web sites from over 1,800 health-related organizations.

Internet Mental Health www.mentalhealth.com

This webpage is an excellent source of internet links to other websites, organizations & institutes, journals & newspapers, universities, etc. that mainly deal with mental health related problems and treatment issues on topics such as ADHD, Tourette syndrome, pervasive developmental disorders, major depression, bipolar disorders, conduct disorder, anxiety disorders, etc.

National Depressive and Manic-Depressive Association www.ndmda.org

730 Franklin Street Suite 501, Chicago, IL 60610

(800) 826-3632

The mission of the National Depressive and Manic-Depressive Association is to educate patient families, professionals, and the public concerning the nature of depressive and manic-depressive illnesses as treatable medical diseases; to foster self-help for patients and families; to eliminate discrimination and stigma; to improve access to care; and to advocate for research toward the elimination of these illnesses.

National Institute of Health (NIH) www.nih.gov

9000 Rockville Pike, Bethesda, Maryland 20892

(800) 352-9424

NIH today is one of the world's foremost medical research centers, and the Federal focal point for medical research in the U.S. The NIH, comprised of 27 separate Institutes and Centers, is one of eight health agencies of the Public Health Service which, in turn, is part of the U.S. Department of Health and Human Services. The goal of NIH research is to acquire new knowledge to help prevent, detect, diagnose, and treat disease and disability.

National Institute of Mental Health (NIMH) www.nimh.nih.gov/publicat/

6001 Executive Boulevard, Room 8184, MSC 9663, Bethesda, MD 20892-9663

(301) 443-4513

This site gives access to NIMH publications on topics such as medications, anxiety disorders, ADHD, bipolar disorder, etc. The articles contain information about etiology, symptoms, psychopharmacological and psychotherapeutic treatments and issues on the various mental health problems. Other related resources such as publications, organizations, advocacy/support groups are also included in these articles.

National Mental Health Association (NMHA) www.nmha.org

2001 N. Beauregard Street, 12th Floor, Alexandria, VA 22311

(703)684-7722

NMHA is the country's oldest and largest nonprofit organization addressing all aspects of mental health and mental illness. With more than 340 affiliates nationwide, NMHA works to improve the mental health of all Americans, especially the 54 million individuals with mental disorders, through advocacy, education, research and service.

Neuroscience for Kids - Tourette Syndrome <http://faculty.washington.edu/chudler/ts.html>

A website with information for and about kids with Tourette Syndrome. Email: chudler@u.washington.edu

Tourette Syndrome Association www.tsa-usa.org

42-40 Bell Boulevard, Bayside, NY 11361

(718) 224-2999

National TSA remains the primary source of accurate and up-to-date information about TS, its treatment, relevant scientific research, and consumer services. TSA publishes a quarterly Newsletter (40,000 readers), maintains a crisis hotline, produces valuable literature for people with TS and their families, medical and allied professionals, educators, and legislators.

U.S. Food and Drug Administration/Center for Drug Evaluation and Research <http://www.fda.gov/cder/drug/default.htm>

Division of Drug Information (HFD-240), 5600 Fishers Lane, Rm. 12B-05, Rockville, MD 20857

1-888-INFO-FDA (1-888-463-6332)

The Center makes sure that safe and effective drugs are available to improve the health of consumers. CDER ensures that prescription and over-the-counter drugs, both brand name and generic, work correctly and that the health benefits outweigh known risks.

A Resource Aid Packet on Students and Psychotropic Medication: The School's Role

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Resources for School Staff:

- Barkley, R. *Attention Deficit Hyperactivity Disorder* (four 40minute videocassettes in VHS format). New York: Guilford Publications, 1990.
- Copeland, E., and Love, V. *Attention Without Tension: A Teacher's Handbook on Attention Disorders*. Atlanta, GA: 3 C's of Childhood, 1992.
- Johnson, D. *I Can't Sit Still - Educating and Affirming Inattentive and Hyperactive Children: Suggestions for Parents, Teachers, and Other Care Providers of Children to Age 10*. Santa Cruz, CA: ETR , 1992.
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Books for Children and Teens:

- Galvin, M. *Otto Learns about his Medication*. New York: Magination Press, 1988. (for young children)
- Gordon, M. *Jumpin' Johnny, Get Back to Work! A Child's Guide to ADHD/Hyperactivity*. DeWitt, New York: GSI Publications, 1991. (for ages 7-12)
- Meyer, D.; Vadasy, P.; and Fewell, R. *Living with a Brother or Sister with Special Needs: A Book for Sibs*. Seattle: University of Washington Press, 1985.
- Moss, D. *Shelly the Hyperactive Turtle*. Rockville, MD: Woodbine House, 1989. (for young children)
- Nadeau, K., and Dixon, E. *Learning to Slow Down and Pay Attention*. Annandale, VA: Chesapeake Psychological Publications, 1993.
- Parker, R. *Making the Grade: An Adolescent's Struggle with ADD*. Plantation, FL: Impact, 1992.
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- Thompson, M. *My Brother Matthew*. Rockville, MD: Woodbine House, 1992.

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- Anderson, W.; Chitwood, S.; and Hayden, D. *Negotiating the Special Education Maze: A Guide for Parents and Teachers*. 2d ed. Rockville, MD: Woodbine House, 1990.
- Bain, L. *A Parent's Guide to Attention Deficit Disorders*. New York: Dell Publishing, 1991.
- Child Psychopharmacy Center, University of Wisconsin. *Stimulants and Hyperactive Children*. Madison: 1990. (Order by calling (608) 2636171.)
- Copeland, E., and Love, V. *Attention, Please!: A Comprehensive Guide for Successfully Parenting Children with Attention Disorders and Hyperactivity*. Atlanta, GA: SPI Press, 1991.
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- Goldstein, S., and Goldstein, M. *Hyperactivity: Why Won't My Child Pay Attention?* New York: Wiley, 1992.
- Greenberg, G.; Horn, S.; and Wade F. *Attention Deficit Hyperactivity Disorder: Questions & Answers for Parents*. Champaign, IL: Research Press, 1991.
- Ingersoll, B., and Goldstein, S. *Attention Deficit Disorder and Learning Disabilities: Realities, Myths, and Controversial Treatments*. New York: Doubleday, 1993.
- Wilson, N. *Optimizing Special Education: How Parents Can Make a Difference*. New York: Insight Books, 1992.
- Windell, J. *Discipline: A Sourcebook of 50 Failsafe Techniques for Parents*. New York: Collier Books, 1991.

Other Resources:

For individuals with a computer and modem, there are online bulletin boards where parents, adults with ADHD, and medical professionals share experiences, offer emotional support, and ask and respond to questions.

Two such online services include CompuServe [(800) 8488990] and America Online [(800) 8276364]. You may also wish to check with other national and local online communications companies to see if they offer similar services.

Materials developed by our Center

UCLA Center for Mental Health in Schools,
Dept. of Psychology, P.O. Box 951563, Los Angeles, CA 90095.
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the following documents can be downloaded at no cost from our website: <http://smhp.psych.ucla.edu>

Affect and Mood Problems related to School Aged Youth

Abstract: This introductory packet provides information on the symptoms and severity of a variety of affect and mood problems, as well as information on interventions - ranging from environmental accommodations to behavior management to medication.

Anxiety, Fears, Phobias, and Related Problems: Intervention and Resources for School Aged Youth

Abstract: This introductory packet discusses variations in degree of problem; interventions ranging from environmental accommodations to behavioral strategies to medication.

Attention Problems: Intervention and Resources

Abstract: This intro packet serves as a starting point for increasing awareness of assessment and treatment of attention problems. Included are excerpt from a variety of sources, including government fact sheets and the classification scheme developed by the American Pediatric Association.

Common Psychosocial Problems of School Aged Youth: Developmental Variations, Problems, Disorders and Perspectives for Prevention and Treatment

Abstract: This sample packet is a guidebook which provides frameworks and strategies to guide schools as they encounter psychosocial problems. Keywords: psychosocial, attention problems, anxiety problems, affect and mood problems, prevention, treatment, developmental variation, youth, schools, resources, frameworks, separation anxiety, best practice, standard based reform.

Conduct and Behavior Problems in School Aged Youth

Abstract: This introductory packet discusses a range of conduct and behavior problems; interventions - including exploration of environmental accommodations, behavioral strategies, and medication.

Continuing Education Modules on Mental Health in Schools: New Roles for School Nurses

Abstract: This guidebook consists of three units to assist school nurses in addressing psychosocial and mental health problems seen as barriers to students' learning and performance. A subset of the nursing material will appear in video/manual self-study format produced by National Association of School Nurses with the support of the Robert Wood Johnson Foundation and National Education Association.

Labeling Troubled and Troubling Youth: The Name Game

Abstract: Underscores bias inherent in current diagnostic classifications for children and adolescents and offers a broad framework for labeling problems on a continuum; implications for addressing the full range of problems are discussed. <http://smhp.psych.ucla.edu/labeling.htm>

Least Intervention Needed: Toward Appropriate Inclusion of Students with Special Needs

Abstract: Highlights the principle of least intervention needed and its relationship to the concept of least restrictive environment; describes approaches for including students with disabilities in regular programs.

Quick Find On-line Clearinghouse

<http://smhp.psych.ucla.edu/qf/Psychotropic.htm>

TOPIC: Psychotropic Medication

The following reflects our most recent response for technical assistance related to this topic. This list represents a sample of information to get you started and is not meant to be exhaustive.

(Note: Clicking on the following links causes a new window to be opened. To return to this window, close the newly opened one).

Center Developed Documents, Resources, and Tools

Articles

- [Lessons Learned: Revisiting Medication. Addressing Barriers to Learning Vol.1\(3\) Summer, 1996](#)

Practice Notes

- [Prescription Drugs Abuse Among Youth](#)

Resource Aid Packets

- [Students and Psychotropic Medication: The School's Role](#)

Other Relevant Documents, Resources, and Tools on the Internet

- [ADHD Medication Fact Sheet](#)
- [Anxiety and Stress Disorders Clinic Medications](#)
- [Child Psychopharmacology: How School Psychologists Can Contribute to Effective Outcomes](#)
- [Counseling Center: Medication Issues](#)
- [Emotional Disorders and Psychotropic Medication: An Overview](#)
- [FDA Approves Non-Stimulant ADHD Drug](#)
- [Guide to Psychiatric Medications for Children and Adolescents](#)
- [NIMH: Medications](#)
- [National trends in the use of psychotropic medications by children](#)
- [Psychiatric Medication For Children And Adolescents Part I-How Medications Are Used](#)
- [Psychotropic Drugs and Children Use, Trends, and Implications for Schools](#)
- [Report of the Working Group on Psychotropic Medications for Children and Adolescents \(American Psychological Association\)](#)
- [School counselors and psychotropic medication: assessing training, experience, and school policy issues](#)
- [States that passed legislation in the 2004 session](#)
- [Treatment of Children with Mental Disorders](#)
- [Understanding How Psychiatric Medications Are Approved and Used for Children](#)
- [The Use of Psychotropic Medication to Treat Children's Mental Health Needs](#)

Clearinghouse Archived Material

- [Caution: Drugs & Alcohol Don't Mix](#)
- [Medications - Mental Health/Mental Illness Decade of the Brain](#)
- [Ritalin: Are We Overmedicating Our Kids?](#)
- [Understanding and Managing Children's Classroom Behavior Ch 9: Medications and Behavior in the Classroom](#)

Related Agencies and Websites

- [About Our Kids](#)
- [American Academy of Child and Adolescent Psychiatry \(AACAP\)](#)
- [American Psychiatric Association](#)
- [Children and Medication Resources](#)
- [Internet Mental Health](#)
- [Mental Health America](#)
- [National Institute of Health \(NIH\)](#)
- [National Institute of Mental Health \(NIMH\)](#)

Relevant Publications That Can Be Obtained through Libraries

- A review of the research on interventions for attention deficit hyperactivity disorder: What works best? Purdie, N., Hattie, J. & Carroll, A. (2002). *Review of Educational Research, Spring 2002*, 72(1): 61-99
- Antidepressants for children: Is scientific support necessary? Fisher, R. L., & Fisher, S. (1996). *The Journal of Nervous and Mental Disease*, 184, 99-102.
- Are the SSRIs and atypical antidepressants safe and effective for children and adolescents? Whittington, C. J., Kendall, T., & Pilling, S. (2005). *Current Opinion in Psychiatry*, 18, 21-25.
- Bipolar depression: Pharmacotherapy and related therapeutic strategies. Thase, M.E. & Sachs G.S. (2000). *Biological Psychiatry*, 48(6): 558-572.
- Facing the evidence: Antidepressant treatment in children and adolescents. Garland, E. J. (2004). *Canadian Medical Association Journal*, 170, 489-491.
- How can we improve the assessment of safety in child and adolescent psychopharmacology? Vitiello, B., Riddle, M. A., Greenhill, L. L., March, J. S., Levine, J., Schachar, R. J., et al. (2003). *Journal of the American Academy of Child & Adolescent Psychiatry*, 42, 634-641.
- How effective are treatments for children and adolescent depression? A meta-analytic review. Michael, K. D., & Crowley, S. L. (2002). *Clinical Psychology Review*, 22, 247-269.
- Long-term treatment with antidepressant drugs: The spectacular achievements of propaganda. Fava, G. A. (2002). *Psychotherapy and Psychosomatics*, 71, 127-132.
- *Neuropsychological effects of stimulant medication on children's learning and behavior*. Brown, R. T., & Daly, B. (in press). In C. R. Reynolds & E. Fletcher-Jantzen (Eds.), *Handbook of clinical child neuropsychology* (3rd ed.). New York: Springer.
- Pharmacological and cognitive-behavioral approaches in the treatment of childhood depression: A review and critique. Duvjone, V. F., Barnard, M. U., & Rapoff, M. A. (1995). *Clinical Psychology Review*, 15, 589-611.
- *Physicians' Desk Reference*, 54th Edition. (2000). Medical Economics Data Production Co.: Montavale, NJ
- *Practitioner's guide to psychoactive drugs for children and adolescents* Werry, J. S., & Aman, M. G. (1999). (2nd ed.). New York: Plenum.
- Raising questions about antidepressants. Antonuccio, D. O., Danton, W. G., DeNelsky, G. Y., Greenberg, R. P., & Gordon, J. S. (1999). *Psychotherapy and Psychosomatics*, 68, 3-14.
- Rising prevalence of antidepressants among U.S. youths. Zito, J. M., Sater, D. J., dosRoeis, S., Gardner, J. F., Soeken, K., Boels, M., & Lynch, F. (2002). *Pediatrics*, 109(5), 721-727.
- Stimulant medication effects in a natural setting among young children with attentiondeficit/hyperactivity disorder. Chacko, A., Pelham, W. E., Gnagy, E. M., Greiner, A., Vallano, G., Bukstein, O., & Rancurello, M. (2005). *Journal of the American Academy of Child & Adolescent Psychiatry*, 4(3), 249-257.
- *Stronger warning is urged on antidepressants for teenagers*. Goode, E. (2004, February 3). New York Times, p. A12.
- The effects of methylphenidate in the classroom: What dosage, for which children, for what problems? Northup, J., Gulley, V., Edwards, S. & Fountain, L. (2001). *School Psychology Quarterly*, 16(3): 303-323.
- The Meaning of Psychotropic Medications for Children, adolescents, and their families. Rappaport, N. (2000). *Journal of the American Academy of Child and Adolescent Psychiatry*.
- What are the long-term effects of methylphenidate treatment. Volkow, N., & Insel, T. (2003) *Biological Psychiatry*, 54, 1307-1309.

We hope these resources met your needs. If not, feel free to contact us for further assistance. For additional resources related to this topic, use our [search](#) page to find people, organizations, websites and documents. You may also go to our [technical assistance page](#) for more specific technical assistance requests.

If you haven't done so, you may want to contact our sister center, the [Center for School Mental Health](#) at the University of Maryland at Baltimore.

If our website has been helpful, we are pleased and encourage you to use our site or contact our Center in the future. At the same time, you can do your own technical assistance with "[The fine Art of Fishing](#)" which we have developed as an aid for do-it-yourself technical assistance.

Revisiting Medication for Kids

Psychiatrist Glen Pearson is president of the American Society for Adolescent Psychiatry (ASAP).

The following is republished with his permission from the society's newsletter.

It happens several times a week in my practice of community child and adolescent psychiatry: Our society's overwhelming belief in medically controlling our kids' behavior finds expression in ever more Huxleyesque demands on the psychiatrist to prescribe. This week's winners are the school district, the juvenile court, and a religious shelter for homeless families with children. Their respective would-be victims are LaShondra, Trevor, and Jimmy.

Jimmy is a 9 year old boy with a long history of treatment for severe emotional disturbance. He's in a school-based day treatment program and seems to be making terrific progress on self-managing his behavior. This turnaround has occurred just in the past few weeks, following an acute psychiatric hospital stay during which the many psychotropic medications he'd been taking without apparent benefit were tapered and discontinued. He was discharged to the day treatment facility and is receiving case management and therapeutic services at home in the community. Unfortunately, the grandmother with whom he lives has been evicted from her residence, and has applied for assistance to a homeless family program. She and Jimmy are scheduled to be admitted to a shelter program next week, but the shelter has made it a condition of receiving services that Jimmy be on medication.

LaShondra is 14. She is in special education classes at her junior high school because of mild mental retardation and emotional disturbance. She bears both physical and psychic scars of early prolonged abuse, and has symptoms of borderline personality pathology and PTSD. She likes school

and wants to learn, but keeps getting expelled for behavioral outbursts. The school, too, has made it a condition of her readmittance to classes that she be on medication. LaShondra experiences psychotropic medication as inimical to her emerging adolescent autonomy, and has had negative therapeutic effects during past trials of treatment.

Trevor, at 15, is incarcerated in the Juvenile Detention Center, awaiting a hearing on certification to stand trial as an adult on two charges of capital murder. We have evaluated him for fitness to proceed and determined that he's not mentally ill, but are involved in providing services to Trevor in consultation with the juvenile authorities because he is persistently threatening suicide. We think the best plan is to keep him closely supervised in detention, but the juvenile department is concerned about their liability and petition the court to transfer him to a psychiatric hospital. Two hearings are held on the same day. At the first hearing Trevor is committed to a private facility, on condition that the facility accepts the admission. The facility refuses. At the second hearing, Trevor is committed to the state hospital on condition that the hospital certifies that they can guarantee security. The hospital can't. The Court then orders that Trevor be involuntarily administered unspecified psychotropic agents by injection.

I am not making these things up. These three cases have so far occupied the last three days of my week, and I'm telling you about them not to garner sympathy for the kids (only two of whom have any sympathy coming in any case), or for me (despite

my clearly deserving some), but to focus attention on the astonishing degree to which everyone in our society has come to believe in the prescribing of psychotropic medication as a cure, or at least a control, for disturbing behavior in kids.

How did we arrive at this state of affairs? Though a very complex interaction among a myriad of scientific, social, and historical factors, of which I want to mention just two of the scientific ones: progress in psychiatric nosology, and progress in biological psychiatry.

Since 1980, we've trained a generation or two of psychiatrists in the phenomenological approach to diagnosis. The last three editions of the DSM (III-R, and IV) are determinedly atheoretical and empirical in their approach (the majority of members of the Work Groups on Child and Adolescent Disorders for the last three DSM's have been pediatric psychopharmacology researchers), and I think we have long since abandoned trying to teach residents to think about the meanings of symptoms to patients (and ourselves), about the dynamics of intrapsychic structure and interpersonal process. During the same time, the explosive growth of neuroscience and pharmacology has given us many new tools with which to work (if only we knew how: my friend and teacher Bob Beavers used to say, "if the only tool you have is a hammer, everything looks like a

nail to you!").

In short, I think we've unwittingly relinquished our most powerful and proven tool: appropriately affectionate, professionally respectful, intimate personal engagement of the patient in mutual exploration of inner meanings. We're frittering our therapeutic potency away on serial trials of psychotropic drugs, and we're prescribing for patients when we don't know the person. There are too many kids on too many drugs, and many of the kids have been given medication as a substitute for engagement and exploration of personal issues.

The point I'm trying to make is that every sector of today's society contributes to this pressure to prescribe. Parents believe medication will cure, schools believe it, courts believe it. even nonpsychiatric mental health professionals believe it. Well, I don't believe it, and it's been my experience with ASAP that most of our members don't believe it either. And, if not only do we not believe that medicine cures, but also we do believe that we have a more powerful and effective treatment which provides an essential context for medication to be helpful, let's stand up and say so. I look forward to hearing from y'all: agree or disagree.

APPENDIX

SCHOOL HEALTH MANUAL

<http://www.state.me.us/education/sh/medications.htm>

MEDICATIONS IN SCHOOLS

4/2002

MAINE SCHOOL HEALTH ADVISORY COMMITTEE

with input from

MAINE DEPARTMENT OF EDUCATION

MAINE DEPARTMENT OF HUMAN SERVICES

AND OTHER RELATED ORGANIZATIONS

COMMENTS

The School Health Manual is available electronically. Each section of the Manual is available as a separate electronic file from the Department of Education WEB Page at

<http://www.state.me.us/education/sh/index.html>. This will allow for sections to be updated on an ongoing basis.

Comments may be given to members of the School Health Advisory Committee or sent to:

DeEtte Hall, Department of Education, 23 State House, Augusta, ME 04333

CONTENTS--MEDICATIONS IN SCHOOLS 1/2000

Medications: Laws

Model Characteristics

Policies and Procedures

Policies and Procedures—Sample

MEDICATION: Administration Statutes Title 20-A, secs. 254(5)

§§254(5). Medication. The Commissioner shall provide for the administration of medication within schools as follows:

A. The Commissioner shall adopt rules for the administration of medication in public or approved private schools, including the training of unlicensed personnel to administer medication. The rules for training must describe how the department will provide training at the local level directly to unlicensed personnel in school administrative unit or approved private school in the State. Rules adopted pursuant to this section are major substantive rules pursuant to Title 5, Chapter 375, subchapter II-A.

B. Any public or approved private school shall have a written policy and procedure for administering medication. The written local policy must include the requirement that all unlicensed personnel who administer medication receive training before receiving authorization to do so. Compliance with the provisions of this subsection is a requirement for basic school approval pursuant to sections 2902 and 4502.

Title 20A §§4009. Emergency medical treatment. Notwithstanding any other provision of any public or private and special law, any non-licensed agent or employee of a school or school administrative unit who renders first aid, emergency treatment or rescue assistance to a student during a school program may not be held liable for injuries alleged to have been sustained by that student or for the death of that student alleged to have occurred as a result of an act or omission in rendering such aid, treatment or assistance. This subsection does not apply to injuries or death caused willfully, wantonly or recklessly or by gross negligence on the part of the agent or employee.

Title 32, §§2102(2) Definitions

2. Professional nursing. The practice of "professional nursing" means the performance, by a registered professional nurse, for compensation of professional services defined as follows:

F. Administration of medications and treatment as prescribed by a legally authorized person. Nothing in this section may be construed as limiting the administration for medication by licensed or unlicensed personnel as provided in other laws.

A certified school nurse is licensed by the Maine Board of Nurses certified by the Department of Education.

BACKGROUND

The need to administer medications in school is increasing with the:

1. number of children who require medical intervention to participate in a school setting;
2. increasing complexity of the medications being used;
3. addition of nutrition supplements and dietary formulas that are prescribed by a physician, available through the pharmacy or over the counter, regulated by the Federal Food and Drug Administration, considered to be medication.

While medical personnel (school physicians and school nurses) are available to school, they may not be available in adequate numbers or on schedules that ensure their availability to administer medication. Therefore:

- Unlicensed personnel (people for whom administration of medication is not within the scope of their professional education or functions) may need to administer medications in order for children to participate in school.
- Unlicensed personnel must receive medicine administration training.
- In order to administer medication safely, people who are to administer medications need to understand

their specific role and the policies and procedures under which they are expected to function, and to have the basic information that makes them safe administrators of medication.

GUIDELINES

Following a hearing before the Joint Standing Committee of the Maine Legislature on Educational and Cultural Affairs in Spring of 1995, the Department of Education convened a Work Group to address issues of safe administration of medications in the school setting. The implementation of the resulting Guidelines is continuing under the School Health Advisory Committee (SHAC). Key elements of the program are:

- The policies and procedures for giving medication in school should be in place before the training program occurs.
- Training is consistent throughout the state using standardized curriculum "Guidelines Training of Non-licensed Personnel in Medication Administration Instructors Manual".

The Training Model is:

- A designated "“master trainer”" will provide training for school nurses and other appropriate persons.
- Local certified school nurse or other qualified trainer will train unlicensed personnel.
- Follow-up program should be provided to keep unlicensed personnel current.

Compliance with training of unlicensed personnel will be evaluated and is tied to school approval.

I. TRAIN THE TRAINER

PARTICIPANTS: The training is for school nurses or health care providers who are licensed to administer medications and who function, or are eligible to function, independently within the school setting, with the expectation that they will then implement the training of the unlicensed personnel in their schools. The "Guidelines for training of Non-licensed Personnel in Administration Instructors Manual" will be used.

FOCUS: In order to teach the program, the school nurses need to know:

- Policy and procedures for schools, legal perimeters
- Adult learning modalities and teaching strategies for adults
- Supervision techniques, including ways of determining capabilities, evaluations
- Implementation strategies
- Current medication theory and practice

II. TRAINING OF UNLICENSED PERSONNEL TO GIVE MEDICATIONS IN SCHOOLS

TIME: The time required includes presentation of information, practice, demonstration and observation. The time needed and scheduling will depend on such factors as:

- The education and experience of the person being trained, such as previous training regarding medications, experience with children and youth, previous and present working relationship between the school nurse and the individual.
- The scope of medication being discussed, such as a specific medication or a range of medications that might be administered.
- The situation in the specific school setting, such as availability of the school nurse and the amount of action that the individual would need to take in case of an unusual occurrence.

- The training plan, i.e. one training updated annually, or done initially with increments throughout the year as medications are added.

CONTENT and length of the training will vary depending on the situation, as discussed above. The training time is projected for 4-16 hours for the full content, as listed here.

1. Policies for administration of medication, including legal and ethical responsibility.
2. How to use resources
3. Basic anatomy and physiology related directly to the administration of medication,
4. Scheduling and timing.
5. Method of administration, including measurement of doses and self-administration
6. Recognition of medications
7. Preparation and administration
8. Reading prescriptions, including abbreviations
9. Housing, storage of medications, transporting, disposal
10. Knowledge of medication to be given, including interactions with other medications, substances
11. Characteristics of children: Growth and development, focus on the individual child.

POLICIES AND PROCEDURES

DEFINITIONS:

Administration: “administration” means to assure that the right medication is given to the right student, by the right route, at the right time, and with the right dose.

Department: “Department” means the Maine Department of Education.

Medication: “medication” means both prescription and non-prescription drugs.

Parent: “parent” means a natural or adoptive parent, a guardian, or a person acting as a parent of a child (such as a grandparent or step-parent with whom the child lives, or a person who is legally responsible for the child’s welfare).

School Nurse: “school nurse” means a registered professional nurse who has received certification from the Maine Department of Education.

School Setting: “school setting” means on school site and on school sponsored activities away from the school unit, such as field trips and other extracurricular activities.

Self-Administration: “self-administration” means the administered of medication by the student to his or her self under direct or indirect supervision of the school nurse.

Supervision: “supervision” means the direct or indirect oversight or coordination of the unlicensed personnel who administer medication.

Training for Unlicensed Personnel: “training for unlicensed personnel” means the organized and systematic training offered by the Department or by school nurses or other health care providers who are licensed to administer medications and who have taken the "Train the Trainer Program" and/or who use a curriculum approved by the Department as their training curriculum.

Unlicensed Personnel: “unlicensed personnel” means any person who is not licensed by any profession

that allows for the administration of medication.

2 . RECOMMENDATIONS FOR THE ADMINISTRATION OF MEDICATION IN A SCHOOL SETTING.

A. All unlicensed personnel who administer medications in a school setting must receive training.

B. As the provision of medication falls under the duties and responsibilities of the school nurse, the school nurse will provide direction and oversight for the administration of medications in the school.

C. A list of authorized personnel who may administer medication and the documentation of training for unlicensed personnel will be kept on file within the school district.

D. All school administrative units and approved private schools will establish written local policies and procedures for the safe administration of medication in schools. The policy/procedures must include the following:

1. Scope of medications and circumstances under which medications may be administered in school.
2. The procedure for allowing the administration of medication in school including the requirement of a current written request from the parent and the medication presented in its original labeled medication container. If the medication is to be given for more than 15 days, a written order from the prescribing health care provider is recommended.
3. The parameters and requirements for medications that can be self-administering by students.
4. How the medications are to be safely transported to and from school, on field trips, and how medication will be safely stored at the school.
5. The plan for administration of medication when the usual administrator is not available and for special school activities such as a field trip or extra curricular activities.
6. The process to be followed in an emergency.
7. The process for documentation in the student's health record.
8. The process for disposal of medication that is in compliance with applicable law.

3. TRAINING OF UNLICENSED PERSONNEL TO ADMINISTER MEDICATIONS IN SCHOOLS

A. The training of unlicensed school personnel will be either provided directly by the Department or by the school nurse using the official curriculum of the Department or a curriculum approved by the Department.

B. The scope of the training for unlicensed personnel may be adjusted depending on the education and experience of the personnel being trained, the medication(s) to be administered, the specific school setting, and the task for which the unlicensed person will be responsible.

C. The school nurse will provide ongoing supervision and periodic updates and review to unlicensed personnel who have been trained to administer medications to students.

D. The school nurse is responsible to determine the competency of the unlicensed personnel in the administration of medication. If the personnel is determined not to be competent to administer medication, the school principal will reassign the task to another personnel after the person has been appropriately trained. If no qualified personnel is available, the principal is responsible until a competent person is found.

E. Personnel who have been trained in administration of a medication for a specific, clearly defined program, such as administration of fluoride in the Maine Bureau of Health, Oral Health Program, are exempt from this rule in regard to the administration of that particular medication.

POLICIES AND PROCEDURES: Sample

The recommended policy for CONTENT is in CAPITAL LETTERS: other text reflects recommendations

for wording of the actual policy.

1. Scope of medications to be administered in school must be clearly defined in policy:

a. Including prescription and non-prescription medication.

1) For the purposes of this policy, ““medication”” includes prescription and non-prescriptions medication, and nutrition supplements and dietary formulas that are prescribed by a physician, available through the pharmacy or over the counter, and regulated by the Federal Food and Drug Administration

b. Circumstances under which medications may be administered in school..

1) Administration of medication on the school premises is discouraged.

2) A parent should confer with the doctor or health care provider who is licensed to prescribe medication to allow the student to receive all prescribed doses at home when possible.

3) When the health care provider deems that medication must be administered during the school day in order for the pupil to attend school, such administration is done in accordance with school policy.

4) At least the initial dose of the medication must be administered at home prior to being administered in the school setting.

2. Personnel permitted to administer medication must be clearly delineated: which types of personnel can give what type of medication; training and supervision of unlicensed personnel.

A. Medication may be administered by the school nurse or trained unlicensed (non-medically licensed) staff under the supervision of a school nurse, with a clearly defined back-up plan in place.

3. Legal responsibility of the local school system must be defined.

A. The school board disclaims any and all responsibility for the diagnosis and prescription of medical treatment of any pupil.

B. Personnel are authorized to administer medication within the limits of their training.

C. Unlicensed personnel who administer medication must be trained.

4. Before medication is administered in school, there must be a written request from the parent/guardian and a written order from the prescribing health care provider.

A. The written permission from the parent/guardian gives informed consent for the administration of the medication.

1) Indicates that the medication may be administered by a medical licensed or a trained non-medical licensed personnel, in accordance with the policy.

2) Indicates who is to be informed if there are problems with administering the medication, including missed medication, and how to reach that person.

3) Indicates that information about the medication may be shared with appropriate school personnel.

4) The request will be approved by the school nurse to assure that:

- it can be given within the policies;
- it can be administered safely to the student within the school setting;
- the person giving the medication has been appropriately trained;
- the written order from the health care provider is complete and accurate.

- b. The written, dated, order of the health care provider includes:
 - 1) Condition for which the medication is being prescribed
 - 2) The intended result of the medication
 - 3) Dosage and method of administration
 - 4) Time at which or specific circumstances under which the medication is to be administered
 - 5) The length of time for which the medication is prescribed (and no longer than the current school year)
 - 6) Reportable side effects
- c. The written order must be renewed with changes in:
 - 1) Any of the information on the written order
 - 2) The health care provider
 - 3) The personnel administering the medication or the condition of the child.
- d. Permission and written order are needed even if the student will be administering the medication to him or herself, under the supervision of the school nurse.
- 5. Safe transport and storage of medication must be assured.
 - a. Medicine must be delivered to the school in its original container by the pupil's parent/guardian.
 - b. Only a limited supply of the medicine will be kept at school.
 - c. Medication will be stored in a secure, safe location in accordance with storage directions for the medication.
 - 1) Students are not permitted to carry medication, unless this permission is indicated on the written permission and the health care provider written order and approved by the school nurse.
 - 2) Storage will be in a locked area.
- 6. Documentation of the requests for administration of medication, and the disposition or implementation of those requests must be maintained, including:
 - a. The condition of the student before, during and after administration
 - b. The dosage administered and method of administration
 - c. Medication error, including missed administration, and action taken.
 - d. Sharing information about a child: what information is shared, with whom, under what circumstances.
- 7. Plan for administration if the usual administrator is not available, and for special school activities.
- 8. There is an established process for involving the community in the establishment and review of the medication policy.

*Certified School Nurses must be cognizant of issues of liability and consider carrying their own malpractice insurance. Reviewing school policy for liability coverage for school nurses is also recommended.