Students and Psychotropic Medication: The School's Role. A Resources Aid Packet.

California Univ., Los Angeles. Center for Mental Health in Schools.

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School Mental Health Project, Center for Mental Health in Schools, Dept. of Psychology, UCLA, 405 Hilgard Ave., Los Angeles, CA 90095-1563; Tel: 310-825-3634; Fax: 310-206-8716; e-mail: smhp@ucla.edu; Web site: http://smhp.psych.ucla.edu (minimal fee to cover copying, postage and handling).

Guides - Non-Classroom (055)

*Behavior Disorders; Counseling; Diseases; Elementary Secondary Education; *Mental Disorders; School Personnel; *School Role; Students

Monitoring; *Psychotropic Medication; Side Effects

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 guide to this topic and some procedural tools. Section 1 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. Section 2 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 disorders, anxiety disorders, depression and bipolar disorders, Tourette's syndrome, psychoses, pervasive developmental disorders, functional enuresis, asthma, and epilepsy. The final section outlines resources for information and support, including Internet sites, centers, agencies, advocacy groups, and relevant publications. (MKA)

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From the Center's Clearinghouse ...

A Resource Aid Packet on

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

*The Center is co-directed by Howard Adelman and Linda Taylor and operates under the auspices of the School Mental Health Project, Dept. of Psychology, UCLA, Los Angeles, CA 90095-1563 -- Phone: (310) 825-3634.

Support comes in part from the Department of Health and Human Services, Public Health Service, Health Resources and Services Administration, Maternal and Child Health Bureau, Office of Adolescent Health.
Under the auspices of the School Mental Health Project in the Department of Psychology at UCLA, our center approaches mental health and psychosocial concerns from the broad perspective of addressing barriers to learning and promoting healthy development. Specific attention is given policies and strategies that can counter fragmentation and enhance collaboration between school and community programs.

**MISSION:** To improve outcomes for young people by enhancing policies, programs, and practices relevant to mental health in schools.

Through collaboration, the center will

- enhance practitioner roles, functions and competence
- interface with systemic reform movements to strengthen mental health in schools
- assist localities in building and maintaining their own infrastructure for training, support, and continuing education that fosters integration of mental health in schools

**Consultation Cadre**

**Clearinghouse**

**Newsletter**

**National & Regional Meetings**

**Electronic Networking**

**Guidebooks**

**Policy Analyses**

Co-directors: Howard Adelman and Linda Taylor
Address: UCLA, Dept. of Psychology, 405 Hilgard Ave., Los Angeles, CA 90095-1563.
Phone: (310) 825-3634 FAX: (310) 206-8716 E-mail: smhp@ucla.edu
Website: http://smhp.psych.ucla.edu/

*In 1996, two national training and technical assistance centers focused on mental health in schools were established with partial support from the U.S. Department of Health and Human Services, Public Health Service, Health Resources and Services Administration, Maternal and Child Health Bureau, Office of Adolescent Health. As indicated, one center is located at UCLA; the other is at the University of Maryland at Baltimore and can be contacted toll free at 1-(888) 706-0980.
What is the Center’s Clearinghouse?

The scope of the Center’s Clearinghouse reflects the School Mental Health Project’s mission -- to enhance the ability of schools and their surrounding communities to address mental health and psychosocial barriers to student learning and promote healthy development. Those of you working so hard to address these concerns need ready access to resource materials. The Center’s Clearinghouse is your link to specialized resources, materials, and information. The staff supplements, compiles, and disseminates resources on topics fundamental to our mission. As we identify what is available across the country, we are building systems to connect you with a wide variety of resources. Whether your focus is on an individual, a family, a classroom, a school, or a school system, we intend to be of service to you. Our evolving catalogue is available on request; eventually it will be accessible electronically over the Internet.

What kinds of resources, materials, and information are available?

We can provide or direct you to a variety of resources, materials, and information that we have categorized under three areas of concern:

- Specific psychosocial problems
- Programs and processes
- System and policy concerns

Among the various ways we package resources are our Introductory Packets, Resource Aid Packets, special reports, guidebooks, and continuing education units. These encompass overview discussions of major topics, descriptions of model programs, references to publications, access information to other relevant centers, organizations, advocacy groups, and Internet links, and specific tools that can guide and assist with training activity and student/family interventions (such as outlines, checklists, instruments, and other resources that can be copied and used as information handouts and aids for practice).

Accessing the Clearinghouse

- E-mail us at smhp@ucla.edu
- FAX us at (310) 206-8716
- Phone (310) 825-3634
- Write School Mental Health Project/Center for Mental Health in Schools, Dept. of Psychology, Los Angeles, CA 90095-1563

Check out recent additions to the Clearinghouse on our Web site http://smhp.psych.ucla.edu

All materials from the Center’s Clearinghouse are available for a minimal fee to cover the cost of copying, handling, and postage. Eventually, we plan to have some of this material and other Clearinghouse documents available, at no-cost, on-line for those with Internet access.

If you know of something we should have in the clearinghouse, let us know.
Preface

Those of you working so hard to address barriers to student learning and promote healthy development need ready access to resource materials. The Center’s Clearinghouse supplements, compiles, and disseminates resources on topics fundamental to enabling students to learn. Among the various ways we package resources are our Resource Aid Packets.

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.
**Students and Psychotropic Medication: The School’s Role**

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 guide to this topic and some procedural tools.

**Section I**

*Overview Guide to a School’s Role*

In this section, you will find brief guides discussing the importance of (1) helping students and families understand medication and what is involved in safeguarding the school and students from issues that arise when schools are involved in administering medication, (2) monitoring and record keeping, (3) educating school staff and getting their feedback on medication effects and providing support and guidance for students on medication. Specific tools are included.

**Section II**

*Brief Information on Medications and Their Side Effects*

In this section, you will find guides outlining purposes, negative effects, and some related considerations with respect to major medications used with students diagnosed as having (1) attention deficit-hyperactivity disorder (2) conduct disorder, (3) anxiety disorders, (4) depression and bipolar disorders, (5) Tourette’s syndrome, (6) psychoses, (7) pervasive developmental disorders, functional enuresis, (9) asthma, (10) epilepsy.

**Section III**

*Places to Go for More Information & Support*

In this section, we provide guides to

- Internet Resources
- Centers, Agencies, and Advocacy Groups
- References
PSYCHOTROPIC MEDICATION: Q & A

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 bedwetting 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 five 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 sertaline hydrochloride [Zoloft])
- **Antipsychotic medication** (e.g., major tranquilizers such as haloperidol lactate [Haldol], chlorpromazine [Thorazine], trifluoperazine hydrochloride [Stelazine], clozapine [Clozaril], thioridazine hydrochloride [Mellaril], and benzisoxazole [Risperdal])
- **Lithium and anticonvulsants** (e.g., antimanic drugs such as lithium carbonate [Lithium, Lithane], lithium citrate [Cibalith]; anticonvulsants such as carbamazepine [Tegretol, Mazepine, Epitol]; valproic acid [Depakene])
- **Anti-anxiety medications** (e.g., besides anti-depressants and antipsychotic 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])

(continued)
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 a 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.
Section I

Overview Guide to a School's Role

In this section, you will find brief guides discussing the importance of (1) helping students and families understand medication and what is involved in safeguarding the school and students from issues that arise when schools are involved in administering medication, (2) monitoring and record keeping, (3) educating school staff and getting their feedback on medication effects and providing support and guidance for students on medication. Specific tools are included.
Overview Guide to a School's Role

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.

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

1. 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),

2. medication is to be provided the school in the original, officially labeled container,

3. medication is appropriately stored and safeguarded,

4. administration and refills are documented,

5. there is a plan by which refills will be provided in a timely fashion,

6. there is clear identification of who is authorized to administer medication (e.g., school nurse, health aide, teacher, office staff),

7. there is a plan for how to deal with negative effects.
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
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)?
15. Does my child's school nurse need to be informed about this medication?

Providing such information serves several functions. It helps bolster due process and informed consent. It also can help the student and family become partners in the process of dealing with a student's problems and in planning to minimize negative effects and their consequences.

Administration Record Keeping

Keeping records need not be complicated (see the attached sample form). The real problem is setting up a system to be certain that entries are made at the time of administration so they are not forgotten.
MEDICATION MONITORING AND RECORD KEEPING

<table>
<thead>
<tr>
<th>Student</th>
<th>Birthdate</th>
<th>Home Room</th>
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<tbody>
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</table>

<table>
<thead>
<tr>
<th>Name of Parent</th>
<th>Phone</th>
<th>Prescriber</th>
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Medication plan: Medication to be dispensed __________ dosage ________ times ________

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Person dispensing</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
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</tbody>
</table>


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 affect 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 affect classroom behavior have been grouped by the American Academy of Child and Adolescent Psychiatry into the following five 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])
- **antipsychotic medication** (e.g., major tranquilizers such as haloperidol lactate [Haldol], chlorpromazine [Thorazine], trifluoperazine hydrochloride [Stelazine], clozapine [Clozaril], thioridazine hydrochloride [Mellaril], and benzisoxazole [Risperdal])
- **lithium and carbamazepine** (e.g., antimanic drugs such as lithium carbonate [Lithium, Lithane], lithium citrate [Cibalith]; anticonvulsants such as carbamazepine [Tegretol, Mazepine, Epitol], and valproic acid [Depakene])
- **anti-anxiety medications** (e.g., besides anti-depressants and antipsychotic 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])

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 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 attributable

<table>
<thead>
<tr>
<th>Poor</th>
<th>Average</th>
<th>Good</th>
<th>In your judgment, is this attributable to the medication?</th>
</tr>
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<tbody>
<tr>
<td>Behavior</td>
<td>_____</td>
<td>_____</td>
<td>_____</td>
</tr>
<tr>
<td>Attention to task</td>
<td>_____</td>
<td>_____</td>
<td>_____</td>
</tr>
<tr>
<td>Completion of work</td>
<td>_____</td>
<td>_____</td>
<td>_____</td>
</tr>
<tr>
<td>Physical changes</td>
<td>_____</td>
<td>_____</td>
<td>_____</td>
</tr>
<tr>
<td>Other (specify)</td>
<td>_____</td>
<td>_____</td>
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</tr>
</tbody>
</table>

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 ____________________________
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 diagnosed as having (1) attention deficit-hyperactivity disorders, (2) conduct disorder, (3) anxiety disorders, (4) depression and bipolar disorders, (5) Tourette's syndrome, (6) psychoses, (7) pervasive developmental disorders, (8) functional enuresis, (9) asthma, and (10) epilepsy.
PSYCHOTROPIC MEDICATION FOR CHILDREN AND ADOLESCENTS

Recommendations to use medication raise concerns. Prescribers should fully explain why it is needed, potential benefits and costs (including unwanted effects or dangers), and treatment alternatives. Appropriate standards for practice stress that psychotropic medication should only be prescribed after a careful determination of need and should not be the sole treatment for emotional or behavioral problems or psychopathology.

As part of its Facts for Families series,* the American Academy of Child and Adolescent Psychiatry states that medication is prescribed for the following problems (ranked from less to more serious):

1. Bedwetting -- if it persists regularly after age 5 and causes serious problems in low self-esteem and social interaction.
2. Specific fears (phobias) or general anxiety -- that keep a youngster from normal activities.
3. Attention deficit-hyperactivity disorder -- got those with a short attention span, trouble concentrating, easily upset and frustrated, and usually in trouble at school.
4. School phobia (separation anxiety) -- fear of leaving home, refuses to go to school or repeatedly feels too sick to go.
5. Depression -- lasting feelings of sadness, helplessness, hopelessness, unworthiness, guilt, inability to feel pleasure, decline in school work, 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. Manic-depressive condition -- 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, deterioration of personal habits.

The Academy groups medication for such problems into five categories

- Stimulant medication -- such as dexedrine or methylphenidate (e.g., Ritalin) -- which is frequently prescribed when attention deficit-hyperactivity disorder is diagnosed.
- Anti-depressants -- used to treat serious depression, school phobias and other serious anxiety disorders, bedwetting, some bulimic-type eating disorders, and attention deficit-hyperactivity disorder.
- Antipsychotic medication ("major tranquilizers") -- such as Haldol, Stelazine, or Thorazine -- reduces irrational beliefs/hallucinations and related panic and sense of loss of control.
- Lithium and anti-convulsants such as carbamazepine (Tegretol) and valproic acid (Depakene) -- used in treating those experiencing manic-depressive episodes.
- Anti-anxiety medications -- short-term use for conditions associated with high anxiety.

The Academy cautions that the usefulness of most of psychotropic medications for children has not been well documented. Moreover, those that appear to have beneficial effects also have unwanted side effects, ranging from just annoying to very serious. All such medication should be used as part of a comprehensive plan of treatment, with ongoing evaluation.

*The American Academy of Child and Adolescent Psychiatry provides its Facts for Families series as a public service and the material may be duplicated and distributed free of charge as long as the Academy is properly credited and no profit is gained from the use. The documents can be obtained by writing the Academy or by downloading them from the Academy website: http://www.aacap.org/factsfam/psychmed.htm
PSYCHOTROPIC MEDICATIONS CATEGORIZED BY
CHILD/ADOLESCENT DIAGNOSES*

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.

I. Diagnosis: Attention Deficit-Hyperactivity Disorder (ADHD)

Medication Types and Treatment Effects

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. Anti-depressants

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).

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).

*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.
I. Diagnosis: **Attention Deficit-Hyperactivity Disorder** (cont.)

### Names: Generic [Commercial]

<table>
<thead>
<tr>
<th>Name</th>
<th>Some Side Effects and Related Considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A. Stimulants</strong></td>
<td></td>
</tr>
<tr>
<td>methylphenidate hydrochloride [Ritalin]</td>
<td>May manifest nervousness, dizziness, insomnia or drowsiness, tics, palpitations, loss of appetite, nausea, dermatitis, mood changes, growth suppression.</td>
</tr>
<tr>
<td>dextroamphetamine sulfate [Dexerxine, Ferndex, Dexampex]</td>
<td>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.</td>
</tr>
<tr>
<td>magnesium pemoline [Cylert])</td>
<td>May manifest restlessness, nervousness, hyperactivity, dizziness, insomnia, unusual fatigue, headache, palpitations, loss of appetite, weight loss, nausea, dry mouth, mood changes, hypersensitivity.</td>
</tr>
<tr>
<td></td>
<td>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.</td>
</tr>
</tbody>
</table>

| **B. Anti-depressants**                    |                                              |
| imipramine hydrochloride [Tofranil]       | May manifest sedation, drowsiness, dizziness, headache, nausea, fatigue, dry mouth, constipation, heartburn, excessive weight gain, rash, excessive sweating, photosensitivity. |
|                                           | 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. |

| **C. Adenergic antagonists**               |                                              |
| clonidine hyperchloride [Catapres]        | May manifest sedation, dizziness, headache, nausea, anxiety, restlessness, nightmares, dry mouth, weight gain, constipation. |
|                                           | Sudden discontinuation may cause blood pressure to shoot up. |
| Guanfacine [Tenex]                        | Use may lead to tiredness, headaches, stomachaches, and decreased appetite. Not recommended under age 12 as safety and efficacy have not been proven. |
II. Diagnosis: **Conduct Disorder** (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.)

**Medication Types and Treatment Effects**

*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, aggressivity, 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 judgment, aggressiveness, and possibly hostility.

*C. Beta-adenergic antagonists*

Although primarily used in controlling hypertension and cardiac problems, beta-adenergic 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).

**Names:**

**[Generic]**

**[Commercial]**

*A. Anti-psychotics*

- thioridazine hydrochloride
  
  [Mellaril, Mellaril-S]

- chlorpromazine hydrochloride
  
  [Thorazine; Thor-Pram]

- haloperidol
  
  [Haldol]

**Some Side Effects and Related Considerations**

May manifest sedation, drowsiness, dizziness, fatigue, weight gain, blurred vision, rash, dermatitis, extrapyramidal syndrome (e.g., pseudo-Parkinson, lardive dyskinesia, hyperactivity), respiratory distress, constipation, photosensitivity.

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 dosage. Youngster is to move slowly from sitting or lying down positions. Care must be taken to minimize exposure to strong sun.

May manifest insomnia, restlessness, fatigue, weight gain, dry mouth, constipation, extrapyramidal reactions (e.g., pseudo-Parkinson, lardive 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.

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.

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.
III. Diagnosis: Tourette’s Syndrome

Medication Types and Treatment Effects

A. Adenergic 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, adenergic 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.

Names: Generic [Commercial]

A. Adenergic antagonists

- clonidine hydrochloride [Catapres, Catapres -TTS]
- Guanfacine [Tenex]

B. Anti-psychotics

- haloperidol lactate [Haldol]
- pimozide [Orap]

Some Side Effects and Related Considerations

A. Adenergic antagonists

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.

Use may lead to tiredness, headaches, stomachaches, and decreased appetite. Not recommended under age 12 as safety and efficacy have not been proven.

B. Anti-psychotics

May manifest insomnia, restlessness, fatigue, weight gain, dry mouth, constipation, extrapyramidal reactions (e.g., pseudo-Parkinson, lardive dyskinesia, dystonia, muscle spasms in back, trembling hands), blurred vision, photosensitivity, decreased sweating leading to overheating, menstrual irregularity.

Avoid sun and overheating. Discontinue gradually.

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.
IV. Diagnosis: Pervasive Developmental Disorders

Medication Types and Treatment Effects

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

Used to decrease serotonin levels, which have been found elevated in about 30% of mentally retarded and autistic children. A review of 25 studies of fenfluramine used with autistic disorders concluded it may improve social relatedness and attention span and decrease stereotypies and excessive motor activity in some cases. However, broader areas of functioning, as measured by IQ tests and assessment of communicative abilities, did not appear affected (Green, 1995).

C. Opiate antagonists

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

<table>
<thead>
<tr>
<th>Names:</th>
<th>Generic</th>
<th>Commercial</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Anti-psychotics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• thioridazine hydrochloride</td>
<td>[Mellaril, Mellaril-S]</td>
<td></td>
</tr>
<tr>
<td>• trifluoperazine hydrochloride</td>
<td>[Stelazine]</td>
<td></td>
</tr>
<tr>
<td>• chlorpromazine hydrochloride</td>
<td>[Thorazine; Thor-Pram]</td>
<td></td>
</tr>
<tr>
<td>• haloperidol</td>
<td>[Haldol]</td>
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</tr>
</tbody>
</table>

Some Side Effects and Related Considerations

May manifest sedation, drowsiness, dizziness, fatigue, weight gain, blurred vision, rash, dermatitis, extrapyramidal syndrome (e.g., pseudo-Parkinson, lardive dyskinesia, hyperactivity), respiratory distress, constipation, photosensitivity

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 dosage. Youngster is to move slowly from sitting or lying down positions. Care must be taken to minimize exposure to strong sun.

May manifest insomnia, restlessness, fatigue, weight gain, dry mouth, constipation, extrapyramidal reactions (e.g., pseudo-Parkinson, lardive dyskinesia, dystonia, muscle spasms in neck and back, trembling hands), blurred vision, photosensitivity, decreased sweating leading to overheating, menstrual irregularity.

Avoid sun and overheating. Discontinue gradually.

B. Stimulants

Used with autistic children with increased serotonin blood levels. May manifest dizziness, insomnia or drowsiness, palpitations, nausea, vomiting, constipation, dry mouth, blurred vision, rash, menstrual irregularity. Administration of medication is recommended on empty stomach. Discontinue gradually to avoid acute depressive reaction.

C. Opiate antagonist

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.
V. Diagnosis: **Bipolar Disorder**

**Medication and Treatment Effects**

**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, or poor judgment, 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).

**Names: Generic [Commercial]**

**A. Anti-manic**

- lithium carbonate/citrate
  [Lithium, Lithane, Lithobid, Lithotabs, Lithonate, Eskalith, Cibalith]

**B. Anti-convulsants**

- carbamazepine
  [Tegretol, Mazepine, Epitol]

- valproic acid
  [Depakene]

**Some Side Effects and Related Considerations**

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, and increased hair growth.

Serum levels must be monitored carefully because of the therapeutic dose is close to toxic level. Care must be taken to maintain normal fluid and salt levels.

May manifest drowsiness, dizziness, fatigue, coordination problems, respiratory depression, edema, nausea, vomiting, hepatitis, nystagmus, and various negative effects associated with trycyclic antidepressants.

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.

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.

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.

**References**


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

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>Medication</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Major depression/dysthymia</strong></td>
<td><strong>trycyclic antidepressants:</strong></td>
</tr>
<tr>
<td></td>
<td>imipramine [Tofranil]</td>
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<tr>
<td></td>
<td>imipramine pamoate [Tofranil-PM]</td>
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<td></td>
<td>nortriptyline hydrochloride [Pamelor, Aventyl]</td>
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<td></td>
<td>amitriptyline hydrochloride [Elavil, Endep, Elovil]</td>
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<td></td>
<td>desipramine hydrochloride [Norpramin, Pertofrane]</td>
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<tr>
<td></td>
<td>clomipramine hydrochloride [Anafranil]</td>
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<td></td>
<td><strong>other anti-depressants:</strong></td>
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<tr>
<td></td>
<td>fluoxetine [Prozac]</td>
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<td></td>
<td>buproplon hydrochloride [Wellbutrin]</td>
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<td></td>
<td>sertraline hydrochloride [Zoloft]</td>
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<tr>
<td></td>
<td>trazodone {Dysrel}</td>
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<tr>
<td><strong>Anxiety Disorders</strong></td>
<td><strong>anti-depressants</strong></td>
</tr>
<tr>
<td></td>
<td>imipramine [Tofranil]</td>
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<td></td>
<td><strong>anxiolytics</strong></td>
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<tr>
<td></td>
<td>buspirone hydrochloride [BuSpar]</td>
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<td></td>
<td>chlordiazepoxide [Librium]</td>
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<td></td>
<td>alprazolam [Xanax]</td>
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<td></td>
<td><strong>anti-histamines</strong></td>
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<tr>
<td></td>
<td>diphenhydramine [Benedryl]</td>
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<tr>
<td></td>
<td>hydroxyzine hydrochloride [Atarax]</td>
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<td></td>
<td>hydroxyzine pamoate [Vistaril]</td>
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<tr>
<td><strong>School Phobia</strong></td>
<td><strong>anti-depressants</strong></td>
</tr>
<tr>
<td></td>
<td>imipramine [Tofranil]</td>
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<tr>
<td></td>
<td><strong>anxiolytics</strong></td>
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<tr>
<td></td>
<td>chlordiazepoxide [Librium]</td>
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<td></td>
<td>alprazolam [Xanax]</td>
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<tr>
<td></td>
<td>buspirone hydrochloride [BuSpar]</td>
</tr>
<tr>
<td><strong>Obsessive-Compulsive Disorder</strong></td>
<td><strong>anti-depressants:</strong></td>
</tr>
<tr>
<td></td>
<td>fluoxetine [Prozac]</td>
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<tr>
<td></td>
<td>clomipramine hydrochloride [Anafranil]</td>
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<tr>
<td><strong>Functional Enuresis</strong></td>
<td><strong>anti-depressants</strong></td>
</tr>
<tr>
<td></td>
<td>imipramine [Tofranil]</td>
</tr>
<tr>
<td></td>
<td>imipramine pamoate [Tofranil-PM]</td>
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<tr>
<td></td>
<td>desipramine hydrochloride [Norpramin, Pertofrane]</td>
</tr>
<tr>
<td><strong>Schizophrenia</strong></td>
<td><strong>anti-psychotics</strong></td>
</tr>
<tr>
<td></td>
<td>clozapine [Clozaril]</td>
</tr>
<tr>
<td></td>
<td>loxapine succinate [Loxitane]</td>
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<tr>
<td></td>
<td>thiothixene [Navane]</td>
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</table>
MEDICATION AND
ATTENTION DEFICIT-HYPERACTIVITY DISORDER

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.

Cylert is available in one form, which naturally lasts 5 to 10 hours. Ritalin and Dexedrine come in
short-term tablets that last about 4 hours, as well as longer-term preparations that last through the
school day. The short-term dose is often more practical for children who need medication only during
the school day or for special situations, like attending church or a prom, or studying for an important
exam. The sustained-release dosage frees the child from the inconvenience or embarrassment of going
to the office or school nurse every day for a pill. The doctor can help decide which preparation to use,
and whether a child needs to take the medicine during school hours only or in the evenings and on
weekends, too.

Other types of medication may be used if stimulants don't work or if the ADHD occurs with another
disorder. Antidepressants and other medications may be used to help control accompanying depression
or anxiety. Clonidine, a drug normally used to treat hypertension, may be helpful in people with both
ADHD and Tourette's syndrome. Although stimulants tend to be more effective for some forms of the
problem, clonidine may be used when stimulants don't work or can't be used. Clonidine can be
administered either by pill or by skin patch and has different side effects than stimulants. The doctor
works closely with each patient to find the most appropriate medication.

Some doctors recommend that children be taken off a medication now and then to see if the child still
needs it. They recommend temporarily stopping the drug during school breaks and summer vacations,
when focused attention and calm behavior are usually not as crucial. These "drug holidays" work well
if the child can still participate at camp or other activities without medication.

Children on medications should have regular checkups. Parents should also talk regularly with the
child's teachers and doctor about how the child is doing. This is especially important when
a medication is first started, re-started, or when the dosage is changed.

The Medication Debate

As useful as these drugs may be, 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 concerns.

(A variety of resources are listed on the reverse side of this handout.)
Resources for School Staff:


Books for Children and Teens:


Books for Parents:


Other Resources:

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

Two such on-line services include CompuServe [(800) 848-8990] and America Online [(800) 827-6364]. You may also wish to check with other national and local on-line communications companies to see if they offer similar services.
MEDICATION AND ANXIETY DISORDERS

From the National Institute of Mental Health Website: http://www.nimh.nih.gov/publication/
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's 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.

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.
Section III

Places to Go for More Information & Support

In this section, we provide guides to

- Internet Resources
- Centers, Agencies, and Advocacy Groups
- References

This article examines questions raised by the clinical consent process in child and adolescent psychopharmacology. A new theoretical model of informed consent and assent for children is presented and pertinent legal literature is reviewed. This model recognizes different components and levels of consent. Attention is given to clinical problems resulting from the influence of multiple persons; the communication between them; the involved individuals' understandings of, and feelings about, the treatment; their actions in the treatment; and changes occurring over time. These factors carry the risk of child coercion and may run counter to therapeutic goals and to the developmental interests of the child.


This reviews articles on child and adolescent psychopharmacology published from October 1992 to December 1993. The articles have direct implications for clinical management, and topics include medication, pathological presentation, and patient education.


This article discusses legal and ethical issues faced by psychologists in general, and school psychologists in particular, as they consider increased participation in the use of psychopharmacological interventions with clients. Such increased participation can vary from increased knowledge about psychopharmacology, to collaborative practice with the prescribing physician, to obtaining limited independent prescription privileges. The legal issues discussed pertain to credentialing concerns, malpractice liability, and record keeping/access. Ethical issues considered include training for competent practice, confidentiality, relationships with other professionals and welfare of the client.


This article summarizes the ways in which a clinician should think about medication use in children and describes practical usage of the most frequently used child psychopharmacologic agents. General issues in pediatric pharmacology are also discussed, including drug holidays, polypharmacy, psychiatrist-mediated psychoeducation, and procedures for administering medication.
Centers, Agencies, and Advocacy

National Institute of Mental Health (NIMH)
Information Resources and Public Inquiries
5600 Fishers Lane, Room 7C-02
Rockville, MD 20857
(301) 443-4513
Website: http://www.nimh.nih.gov/publicat/

National Institutes of Health (NIH)
Neurological Institute
P.O. Box 5801
Bethesda, MD 20824
(800) 352-9424

Center for Mental Health Services
Office of Consumer, Family and Public Information
5600 Fishers Lane, Room 15-105
Rockville, MD 20857
(301) 443-2792

Children and Adults with Attention Deficit Disorders (CHADD)
499 NW 70th Avenue, Suite 109
Plantation, FL 33317
(305) 587-3700
Website: http://www.catalog.com/chadd/

American Psychiatric Association
1400 K Street, N.W.
Washington, DC 20005
(202) 682-6220

American Psychological Association
750 First Street, N.E.
Washington, DC 20002-4242
(202) 336-5500
Website: http://www.apa.org/

National Depressive and Manic Depressive Association
730 Franklin Street, Suite 501
Chicago, IL 60610
(800) 826-3632
(312) 642-0049
(312) 642-0049/fax

National Center for Mental Health
1021 Prince Street
Alexandria, VA 22314
(703) 684-7722

Federation of Families for Children’s Mental Health
1021 Prince Street
Alexandria, VA 22314
(703) 684-7710

American Academy of Child & Adolescent Psychiatry (AACAP)
3615 Wisconsin Avenue, NW
Washington, DC 20016-3007
(202) 966-7300
(202) 966-2891/fax
http://www.aacap.org/

National Attention Deficit Disorder Association (ADDA)
P.O. Box 972
Mentor, OH 44061
(800) 487-2282
(216) 350-9595
(216) 350-0223/fax
Website: http://www.adda.org/

Tourette Syndrome Association
42-30 Bell Boulevard
Bayside, New York 11361
(718) 224-2999

Center for the Study of Autism (CSA)
P.O. Box 4538
Salem, OR 97302
INTERNET RESOURCES OFFERING ASSISTANCE RELATED TO PSYCHOTROPIC MEDICATION ON CHILDREN & ADOLESCENTS

The following is a list of sites on the World Wide Web 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.

**National Institute of Mental Health (NIMH)**
Address: http://www.nimh.nih.gov/publicat/
Description: 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.

**American Academy of Child and Adolescent Psychiatry (AACAP)**
Address: http://www.aacap.org/web/aacap
Description: 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.*

**Mental Health Internet**
Address: http://www.mentalhealth.com/
Description: 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.

**Children and Adults with Attention Deficit Disorders (CH.A.D.D.)**
Address: http://www.catalog.com/chadd/doe/doe_myth.htm
Description: 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.
Selected References:
Psychotropic Medication on Children & Adolescents

Psychopharmacological interventions.

Counselor's resource on psychiatric medications: Issues of treatment and referral.

Attention deficit disorder, VoL3: New research in attention, treatment, and psychopharmacology.

Psychopharmacology in child and adolescent psychiatry: A review of the past seven years: 11.


Legal and ethical issues in school psychologists' participation in psychopharmacological interventions with children.

Using antidepressant medication on depressed children: An algorithm.

Psychopharmacology for children and adolescents: Commentary on current issues and future challenges.

Informed consent or informed coercion? Decision-making in pediatric psychopharmacology.


Child and adolescent psychopharmacology.

Developmental perspectives in pediatric psychopharmacology.

Child and adolescent clinical psychopharmacology.
Asthma and Epilepsy Medications May Affect Classroom Behavior


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, size 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.

(From the chapter) pediatric psychopharmacology is a rapidly growing new field linking medicine, behavioral sciences, and neurosciences to child psychiatry; the widening acceptance of drug therapy in pediatric psychiatry by psychiatrists, pediatricians, and general practitioners has been accompanied by increasing concerns among therapists, parents, educators, and the public over the potential hazards of medications and their prolonged use ... general guidelines of prescribing; stimulants; antidepressants (enuresis, attention deficit and conduct disorders, separation anxiety and school phobia, depression, obsessive-compulsive disorder, eating disorders); antipsychotics (infantile autism, Tourette’s syndrome); anxiolytics; antiaggressive drugs.


The papers presented here are a collection of contemporary, ongoing research by a highly intelligent group of investigators into the syndrome of attention deficit disorder. The purpose of this volume is to increase the knowledge base and ultimately benefit the large number of children who present this syndrome, and who seem at risk for psychopathology in later life... For psychologists, psychiatrists, neurologists, pharmacologists, pediatricians and educators.


(From the chapter) focuses on the psychopharmacological studies involving children and adolescents with anxiety disorders; the shortcomings of the psychopharmacological research be will presented, so that results of the scientific studies can be placed into perspective; (examines) each class of medications that have been used to treat children and adolescents with juvenile anxiety disorders; (presents) a clinical guide to initiation of antianxiety medication treatment in children and adolescents; (describes an illustrative case study of an imipramine treated 8 yr. old boy with separation anxiety disorder).


This article reviews literature (1964-95) on the efficacy and safety of psychoactive agents in treating children and adolescents with schizophrenia, selective mutism, or conduct, separation anxiety, obsessive-compulsive, panic, major depressive, bipolar, sleep or eating disorder. Studies with sophisticated design and methodology show that lithium is useful in reducing aggression. More evidence is required to confirm the efficacy of use of the rational treatment approach, especially in depression and conduct disorder.
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 Huxleyan 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 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 is 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 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.
We hope you found this to be a useful resource.

There's more where this came from!

This packet has been specially prepared by our Clearinghouse. Other Introductory Packets and materials are available. Resources in the Clearinghouse are organized around the following categories.

### CLEARINGHOUSE CATEGORIES

#### Systemic Concerns

- Policy issues related to mental health in schools
- Mechanisms and procedures for program/service coordination
  - Collaborative Teams
  - School-community service linkages
  - Cross disciplinary training and interprofessional education
- Comprehensive, integrated programmatic approaches (as contrasted with fragmented, categorical, specialist oriented services)
- Other System Topics:

#### Programs and Process Concerns:

- Clustering activities into a cohesive, programmatic approach
  - Support for transitions
  - Mental health education to enhance healthy development & prevent problems
  - Parent/home involvement
  - Enhancing classrooms to reduce referrals (including prereferral interventions)
  - Use of volunteers/trainees
  - Outreach to community
  - Crisis response
  - Crisis and violence prevention (including safe schools)
- Other program and process concerns:

#### Psychosocial Problems

- Drug/alcoh. abuse
- Depression/suicide
- Grief
- Dropout prevention
- Learning Problems
- School Adjustment (including newcomer acculturation)
- Pregnancy prevention/support
- Eating problems (anorexia, bulim.)
- Physical/Sexual Abuse
- Neglect
- Gangs
- Self-esteem
- Relationship problems
- Anxiety
- Disabilities
- Gender and sexuality
- Reactions to chronic illness
- Other Psychosocial problems:
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