

Southern Consortium for Children

Athens, Hocking, Vinton 317 Board
ADAMHS Board of Adams-Lawrence-Scioto Counties
Gallia-Jackson-Meigs Board of ADAMHS
Washington County MHAR Board

CHILD AND ADOLESCENT PSYCHOPHARMACOLOGY MANUAL



Issued: *November 2005*

Compiled by: Peg Meis, M.Ed., LPCC, Director of Crisis Services
Reviewed by: Edward Lynam, M.D. & Linda Adams, R.N., MSN
Designed by: Jenny Metts

Preface

To the User:

This manual has been put together for **informational purposes only**. It is not meant to be used for clinical practice. Each physician will have their own methodology in treating children and adolescents, as many of these drugs have not been fully tested for use with patients under the age of 18. It is strongly advised that when questions arise regarding medication for a specific youth that those questions be referred to the treating physician.

- Please be aware and attuned to the possible side effects of any medication, especially at the onset of starting any new medication.
- In particular, suicidal ideation with antidepressants, stimulants, and Strattera.
- Watch for adverse effects of all stimulants, such as hallucinations and psychosis.

It is our hope that this manual will be helpful in the field for therapists, case managers, counselors, court personnel, and child-serving agencies. We encourage you to reproduce this manual as needed and to distribute it to all staff who may benefit from its use. This manual can also be downloaded online by going to www.scchildren.com.

Southern Consortium for Children
Post Office Box 956
Athens, Ohio 45701
740-593-8293 Phone / 740-592-4170 Fax
Contact: Peg Meis
peg1@frognet.net
www.scchildren.com

Table of Contents

ADHD Treatment

| | |
|-------------------------|----|
| Adderal..... | 1 |
| Adderall XR..... | 3 |
| Catapres..... | 4 |
| Concerta..... | 6 |
| Cylert..... | 8 |
| Dexedrine..... | 10 |
| Dexedrine Spanules..... | 10 |
| Focalin..... | 12 |
| Focalin XR..... | 12 |
| Inderal..... | 14 |
| Metadate ER..... | 6 |
| Ritalin..... | 16 |
| Strattera..... | 18 |

Anticonvulsants

| | |
|----------------|----|
| Kepra..... | 20 |
| Klonopin..... | 22 |
| Lamictal..... | 24 |
| Neurontin..... | 26 |
| Topamax..... | 28 |
| Trileptal..... | 31 |
| Zonegran..... | 34 |

Antidepressant

| | |
|----------------------|----|
| Anafranil..... | 36 |
| Ativan..... | 40 |
| Buspar..... | 43 |
| Celexa..... | 44 |
| Cymbalta..... | 46 |
| Effexor..... | 49 |
| Effexor XR..... | 49 |
| Desyrel..... | 51 |
| Lexapro..... | 53 |
| Luvox..... | 54 |
| Norpramin..... | 56 |
| Paxil..... | 58 |
| Paxil CR..... | 58 |
| Prozac..... | 59 |
| Prozac Weekly..... | 59 |
| Remeron..... | 61 |
| Remeron Soltabs..... | 61 |
| Sarafem..... | 59 |
| Serzone..... | 63 |
| Sinequan..... | 65 |
| Tofranil..... | 67 |
| Tofranil-PM..... | 67 |
| Wellbutrin..... | 69 |
| Wellbutrin SR..... | 69 |
| Wellbutrin XL..... | 69 |
| Zoloft..... | 71 |

Table of Contents (Continued)

Antiparkinson

| | |
|----------------|----|
| Cogentin | 73 |
|----------------|----|

Antipsychotic

| | |
|-----------------|----|
| Abilify | 75 |
| Clozaril | 77 |
| Geodon | 79 |
| Haldol | 80 |
| Mellaril | 82 |
| Orap | 84 |
| Risperdal | 86 |
| Seroquel | 88 |
| Thorazine | 90 |
| Trilafon | 93 |
| Zyprexa | 95 |

Bipolar Treatment

| | |
|--------------------------|-----|
| Cibalith-S | 102 |
| Depakene | 97 |
| Depakote | 100 |
| Depakote ER | 100 |
| Depakote Sprinkles | 100 |
| Eskalith | 102 |
| Eskalith CR | 102 |
| Lithium | 102 |
| Lithobid | 102 |
| Tegretol | 105 |
| Tegretol CR | 105 |
| Tegretol XR | 105 |

| | |
|-----------------------|-----|
| <i>Glossary</i> | 107 |
|-----------------------|-----|

| | |
|-------------------------|-----|
| <i>References</i> | 108 |
|-------------------------|-----|

| | |
|--------------------|-----|
| <i>Index</i> | 109 |
|--------------------|-----|

ADDERALL

Brand Name: Adderall

Classification: A single entity amphetamine product combining the neutral sulfate dextroamphetamine and amphetamine.

How Supplied: Tablets: 5 mg, 7.5 mg, 10 mg, 12.5 mg, 15 mg, 20 mg, 30 mg

Mechanism of Action:

Amphetamines are non-catecholamine sympathomimetic amines with CNS stimulant activity.

Indications and Dosage:

Attention Deficit Disorder with Hyperactivity: Adderall is indicated as an integral part of a total treatment program for a stabilizing effect in children with the behavioral syndrome. Not recommended for children under the age of 3. In children from 3-5, start with 2.5 mg daily, daily dose may be raised in increments of 2.5 mg at weekly intervals until optimal response is obtained. In children 6 or older, start with 5 mg and increase with a daily dose of 5 mg weekly. Only in rare occasions would it be necessary to exceed more than 40 mg. First dose in the AM, next one 4-6 hrs. later.

Adverse Reactions:

| | |
|-------------------------|--|
| Cardiovascular: | palpitations, tachycardia, elevation of blood pressure |
| Central Nervous System: | over stimulation, restlessness, dizziness, insomnia, exacerbation of motor and phonic tics and Tourette's syndrome, headache, tremor |
| Gastrointestinal: | constipation, diarrhea, anorexia, dryness of mouth |
| Endocrine: | impotence, changes in libido |

Interactions:

Acidifying agents lower the absorption of amphetamines, MAO inhibitors slow amphetamine metabolism; this can cause headaches and other more serious results. Long-term effects of amphetamines in children have not been well established. Adderall Tablets are not recommended for use in children under 3 years of age with ADHD. Treatment with amphetamines is usually not indicated when ADHD is associated with acute stress reaction. In psychotic children, administration of amphetamines may exacerbate symptoms of behavior disturbance and thought disorder. High potential for abuse.

*It is strongly advised that this medication is not mixed with alcohol, illicit drugs or any medication unless consultation with a physician or a pharmacist occurs.

ADDERALL (Continued)

Nursing, Case Management, Counseling and Parental Considerations:

Amphetamines have a high potential for abuse. Administration of amphetamines for prolonged periods of time may lead to drug dependence and must be avoided.

Do not use within 14 days of an MAO inhibitor.

Manifestations of acute overdose include:

- restlessness
- tremors
- hyperflexia
- panic states

Children may be encouraged to learn the purpose, dose and main side effects, as appropriate for age and condition.

A responsible adult should supervise use in children.

Children believed to be overdosed should receive immediate medical treatment.

ADDERALL XR

Generic: amphetamine sulfate

Classification: Central System Nerve Stimulant

How Supplied: Capsules: 5 mg, 10 mg, 15 mg, 20 mg, 25 mg, 30 mg
Extended Release

Mechanism of Action:

Unknown. Probably promotes nerve impulse transmission by releasing stored norepinephrine from nerve terminals in the brain. Main sites of activity appear to be the cerebral cortex and the reticular activating system.

Indications and Dosage:

Attention Deficit Hyperactivity Disorder: Children ages 3-5: 2.5 mg daily, with dosage increases in 2.5 mg increments weekly, prn. Children 6 and older: 5 mg daily to bid, with dosage increases in 5 mg increments weekly, prn. Give first dose on awakening, additional doses given at intervals of 4-6 hours. Dosage rarely exceeds 40 mg daily.

Adverse Reactions:

| | |
|-------------------------|--|
| Cardiovascular: | tachycardia, palpitations, hypertension, arrhythmias |
| Central Nervous System: | restlessness, tremor, hyperactivity, talkativeness, insomnia, irritability, dizziness, headache, chills, nervousness |
| Gastrointestinal: | dry mouth, metallic taste, diarrhea, constipation, anorexia |
| Genitourinary: | impotence |

Interactions:

| | |
|---------------|---|
| drug to drug: | Acetazolamide, antacids, sodium bicarbonate |
| drug to food: | Caffeine: discourage using together |

Nursing, Case Management, Counseling and Parental Considerations:

Use cautiously with hyper excitable patients and with psychotic personalities or a history of suicidal or homicidal tendencies. Should not be used to combat fatigue. May obtain baseline ECG. Take 6 hours before bedtime to avoid sleep interference.

CATAPRES

- Brand Name:** Catapres, Catapres TTS
- Generic:** clonidine hydrochloride
- Classification:** Alpha-adrenergic agonist; antihypertensive
- How Supplied:** Patch, transdermal: 1, 2 and 3 (0.1, 0.2, 0.3 mg/day) to 7 day duration
Tablets: 0.1 mg, 0.2 mg, 0.3 mg

Mechanism of Action:

Stimulate alpha 2 adrenoreceptors in the brain stem, thus activating an inhibitory neuron, resulting in reduced sympathetic outflow, producing a decrease in vasomotor tone and heart rate.

Indications and Dosage:

Aid in growth hormone deficiency. Heroin withdrawal and smoking cessation. Used for behavioral management in children, it is used in ADHD and is sometimes given with a stimulant. Initial dose 0.1 mg 2x a day (AM and PM), increase 0.1 mg per day at weekly intervals. Therapeutic doses between 0.2-0.6 mg in divided doses. 2/4 mg maximum dose.

Adverse Reactions:

- | | |
|-------------------------|--|
| Cardiovascular: | low blood pressure, slow heart rate, rapid heart rate |
| Central Nervous System: | drowsiness, headaches, dizziness, fatigue, insomnia, anxiety |
| Metabolic: | sodium and water retention |
| Gastrointestinal: | constipation, dry mouth, loss of appetite |

Interactions:

Tricyclic antidepressants antagonize low blood pressure effects of Clonidine. Beta blockers may potentiate reduced heart rate in patients receiving Clonidine. Discontinue beta blocker several days before Clonidine is tapered off due to possible rebound low blood pressure.

*It is strongly advised that this medication is not mixed with alcohol, illicit drugs or any medication unless consultation with a physician or a pharmacist occurs.

CATAPRES (CONTINUED)

Nursing, Case Management, Counseling and Parental Considerations:

Use with caution in diabetic patients or individuals with a history of depression.

The physician should set the range of blood pressure and pulse for safe administration.

The therapeutic dose is reached gradually, often over a period of days or weeks. When being discontinued, Clonidine should be decreased gradually from 2-4 days.

Once the therapeutic dose is achieved, the physician may choose to have the child use the medication patch. The instructions should be read carefully before placing the patch. A responsible adult should check the patch daily. Watch carefully for skin irritation; if severe, the physician may need to reinstitute dose by tablet. The patch may need to be placed where the child cannot remove it.

The medication in the patch may be metabolized at different rates by each child. The physician will need to know how long the medication affects behavior in order to regulate a smooth effect of the medication on behavior.

Children may be encouraged to learn the purpose, dose and main side effects, as appropriate for age and condition.

A responsible adult should supervise use in children. Parents should monitor blood pressure and pulse, especially in the beginning of therapy.

Children believed to be overdosed should receive immediate medical attention.

CONCERTA AND METADATE ER

Generic: methylphenidate hydrochloride

Classification: Central Nervous System Stimulant

How Supplied: Capsules XR: 20 mg, Tablets: 2.5mg, 5 mg, 10 mg, 20 mg chewable
Tablets ER: 10 mg, 18 mg, 27 mg, 36 mg, 54 mg
Tablets SR: 20 mg

Mechanism of Action:

Unknown. Probably promotes nerve impulse transmission by releasing stored norepinephrine from nerve terminals in the brain. In children with hyperkinesias, Concerta has a paradoxical calming effect.

Indications and Dosage:

Children age 6 and older: 18 mg once daily in the morning, adjust dosage by 18 mg at weekly intervals; not to exceed 54 mg taken in the morning. Maximum dose is 54 mg.

Adverse Reactions:

| | |
|-----------------------------|--|
| Cardiovascular: | palpitations, angina, tachycardia, changes in blood pressure and pulse rate, arrhythmias |
| Central Nervous System: | nervousness, insomnia, Tourette syndrome, dizziness, headache, akathisia, dyskinesia, seizures, drowsiness |
| Eyes, Ears, Nose, & Throat: | pharyngitis, sinusitis |
| Gastrointestinal: | nausea, abdominal pain, anorexia |
| Metabolic: | weight loss |
| Respiratory: | cough, upper respiratory tract infection. |

Interactions:

| | |
|------------------------------|---|
| Drug-food: | Beverages containing caffeine; may increase amphetamine and related amine effects. Avoid using together. |
| Effects on lab test results: | May decrease platelet and WBC counts and hemoglobin. |
| Contraindications: | Contraindicated in patients with hypersensitivity to drug and in those with glaucoma, motor tics, family history or diagnosis of Tourette syndrome, or history of marked anxiety, tension, or agitation. Concerta is contraindicated in glaucoma and motor tics or those with a family history or diagnosis of Tourette syndrome. Don't use Concerta in patients with preexisting severe GI narrowing--pathologic or iatrogenic--such as small bowel inflammatory disease, short-bowel syndrome caused by adhesions or decreased transit time, past history of peritonitis, cystic fibrosis, chronic intestinal pseudo obstruction, or Meckel's diverticulum. |

CONCERTA AND METADATE ER (CONTINUED)

Nursing, Case Management, Counseling and Parental Considerations:

Use cautiously in patients with history of drug and alcohol abuse, hypertension, seizures, or EEG abnormalities. Use Concerta cautiously in patients whose underlying medical conditions might be compromised by increases in blood pressure or heart rate, e.g., those with preexisting heart failure, recent MI, or hyperthyroidism.

Drug isn't used to prevent fatigue.

Drug may precipitate Tourette syndrome in children. Monitor patient, especially at start of therapy.

Observe for signs of excessive stimulation. Monitor blood pressure. Monitor results of periodic CBC, differential, and platelet counts with long-term use.

Monitor height and weight in children on long-term therapy. Drug may delay growth spurt, but children will attain normal height when drug is stopped.

Monitor patient for tolerance or psychological dependence.

CYLERT

Generic: pemoline

Classification: Central nervous system stimulant-nonamphetamine
Controlled Substance Schedule IV

How Supplied: Tablets: 18.75 mg, 37.5 mg, 75 mg
Chewable Tablets: 37.5 mg

Mechanism of Action:

Blocks the reuptake mechanism of dopaminergic neurons; appears to react at the cerebral cortex.

Indications and Dosage:

Attention deficit disorder with hyperactivity (ADHD) children >6 years. Initial 37.5 mg daily in a.m. Increase by 18.75 mg/day at weekly intervals. Effective dose range: 56.25-75 mg daily; maximum 112.5 mg/day. Also indicated for Tourette's syndrome.

Adverse Reactions:

| | |
|-------------------------|--|
| Central Nervous System: | insomnia, anorexia, seizures, headache, EKG problems |
| Skin: | rash |
| Gastrointestinal: | stomach ache, nausea, vomiting, diarrhea |
| Liver: | hepatitis, jaundice |
| Muscles: | movement disorders |

Interactions:

Central nervous system stimulants and depressants. May alter insulin requirements in diabetics. Liver function testing every week or two is required due to prominence of liver failure.

*It is strongly advised that this medication is not mixed with alcohol, illicit drugs or any medication unless consultation with a physician or a pharmacist occurs.

CYLERT (CONTINUED)

Nursing, Case Management, Counseling, and Parental Considerations:

Monitor pulse to check for rapid pulse rate.

Should report to the physician unusual utterances by the child (whooping, barking, increased swearing.)

Treatment of ADHD should involve “drug holidays” or periodic discontinuation of stimulant medication in order to assess the patient’s requirements to decrease tolerance and limit suppression of growth and weight. Drug holidays are carried out under the supervision of a physician.

Administer 6 hours before bedtime to prevent rebound hyperactivity and difficulty going to sleep.

Children should be encouraged to eat a good breakfast prior to administration of the first AM dose due to possible appetite suppression side effect.

Children believed to be overdosed should receive immediate medical attention.

A responsible adult should supervise use in children.

Children may be encouraged to learn the purpose, dose and main side effects as appropriate for age and condition.

DEXEDRINE & DEXEDRINE SPANULES

| | |
|------------------------|---|
| Brand Name: | Dexedrine |
| Generic: | dextroamphetamine sulfate |
| Classification: | Amphetamine Controlled Substance (Schedule II) |
| How Supplied: | Tablets: 5 mg, 10 mg Sustained release capsules (SR): 5 mg, 10 mg, 15 mg Elixir: 5 mg / 5ml |

Mechanism of Action:

Main site of activity appears to be the central cortex. Promotes nerve impulse transmission by releasing stored norepinephrine from nerve terminals in the brain. In hyperactive children amphetamines have a paradoxical "calming" effect.

Indications and Dosage:

Attention Deficit Disorder with Hyperactivity (ADHD). Children ages 3-5: 2.5 mg P.O. daily. Increase dosage in 2.5 mg increments weekly, prn. Children 6-12 years, 5 mg/day, increase 5 mg increments weekly, maximum dose 40 mg/day. Children >12 years, 10 mg/day, increase in 10 mg increments weekly; maximum dosage 40 mg/day. Also indicated for Tourette's syndrome.

Adverse Reactions:

| | |
|-------------------------|--|
| Central Nervous System: | insomnia, headache, nervousness, dizziness, depression |
| Cardiovascular: | high blood pressure, rapid heart rate |
| Gastrointestinal: | anorexia (loss of appetite), nausea, vomiting, dry mouth, liver problems |
| Metabolic: | growth suppression |

Interactions:

May increase serum concentration of tricyclic antidepressants. May precipitate uncontrollable high blood pressure when given with MAO inhibitors.

*It is strongly advised that this medication is not mixed with alcohol, illicit drugs or any medication unless consultation with a physician or a pharmacist occurs.

DEXEDRINE & DEXEDRINE SPANULES (CONTINUED)

Nursing, Case Management, Counseling and Parental Considerations:

Daily dose may be given in 1-3 divided doses/daily. Sustained release capsules should be used for one daily dosage. The last daily dose should be given 6 hours before bedtime to prevent difficulty sleeping. Do not crush or allow child to chew sustained release preparations.

Some children with ADHD only need stimulants during school hours (so they can focus on school work. By the direction of the physician they can stop usage on weekends, holidays and during school breaks and holidays. Other children are unable to function adequately without medication.

Monitor height and weight in children on prolonged therapy because the drug has been associated with growth suppression.

Child should avoid caffeine, as it increases the effects of amphetamines.

Children believed to be overdosed should receive immediate medical attention.

A responsible adult should supervise use with children.

Children may be encouraged to learn the purpose, dose and main side effects, as appropriate for age and condition.

FOCALIN & FOCALIN XR

- Generic:** dexmethylphenidate hydrochloride
- Classification:** Central Nervous System stimulant
- How Supplied:** Tablets: 2.5 mg, 5 mg, 10 mg
Capsules: Extended Release 5 mg, 10 mg, 20 mg

Indications and Dosage:

Treatment of attention-deficit hyperactivity disorder in patients age 6 and older--
Adults and children age 6 and older: Individualize dosage. Give P.O. bid, at least 4 hours apart, without regard to meals. Initially, 2.5 mg P.O. bid; may increase prn. in 2.5- to 5 mg increments, to a maximum dose of 10 mg P.O. bid for patients already on methylphenidate, start dose at half the methylphenidate dose, to a maximum dose of 10 mg P.O. bid. Capsules: 1 daily before breakfast.

Adverse Reactions:

- | | |
|----------------------------|--|
| Cardiovascular: | increased or decreased pulse and blood pressure; angina, arrhythmias, palpitations |
| Central Nervous System: | nervousness, insomnia, dizziness, headache, dyskinesia, chorea, drowsiness, Tourette syndrome, toxic psychosis |
| Eyes, Ear, Nose, & Throat: | blurred vision, accommodation difficulties |
| Gastrointestinal: | anorexia, nausea, abdominal pain |
| Hematologic: | leukopenia, anemia |
| Hepatic: | abnormal liver function |
| Metabolic: | weight loss |
| Skin: | rash, loss of scalp hair |
| Other: | fever, tolerance, psychological dependence, abnormal behavior with abuse |

Interactions:

Drug-drug. Antihypertensives: May decrease antihypertensive effects. Use cautiously and monitor patient's blood pressure.
Coumarin anticoagulants, phenobarbital, phenytoin, primidone, tricyclic antidepressants, and some selective serotonin reuptake inhibitors: Use may increase levels of these drugs. Monitor patient closely and decrease dose of these drugs, as needed.
MAO inhibitors: Risk of severe hypertensive crisis. Avoid using within 14 days of MAO inhibitor administration.

FOCALIN & FOCALIN XR (CONTINUED)

Nursing, Case Management, Counseling and Parental Considerations:

Contraindicated in patients who are hypersensitive to dexamethylphenidate or methylphenidate and in those with marked anxiety, tension, and agitation, glaucoma, motor tics, family history or diagnosis of Tourette syndrome. Don't use to treat severe depression or normal fatigue states. Don't use in those who have used monoamine oxidase (MAO) inhibitors within the past 14 days.

Use cautiously in patients with psychosis, seizure disorders, hypertension, drug dependence, alcoholism, or emotional instability, and in those who are pregnant or breast-feeding.

Safety and efficacy haven't been established in children younger than age 6.

INDERAL

Brand Name: Inderal

Generic: propranolol hydrochloride

Classification: Antianginal Agent, antiarrhythmic agent
Class II: Antihypertensive; beta adrenergic blocker

How Supplied: Injection: 1mg/ml (1ml.)
Tablets: 10 mg, 20 mg, 40 mg, 60 mg, 80 mg, 90 mg
Capsules: sustained action 60 mg, 80 mg, 120 mg, 160 mg
Oral solution: (strawberry-mint) 4 mg/ml, 8 mg/ml, 80 mg (concentrate)
Oral concentration: 80 mg/ml

Mechanism of Action:

Non-selective beta adrenergic blocker (class II antiarrhythmic); competitively blocks response to beta 1 and beta 2 adrenergic stimulation which results in decreases in heart rate, blood pressure and myocardial contractility and demand.

Indications and Dosage:

Aggression and rage .5-1 mg/kg/day in divided doses every 6-12 hours; increase gradually every 3-7 days; usual dosage not to exceed 60 mg. In behavioral management initial doses are much higher. More like the adult dosage 80 mg with a maintenance dose of 160-240 mg. Used in children to control tremors of Lithium.

Adverse Reactions:

| | |
|-------------------------|---|
| Respiratory: | may make asthma worse |
| Central Nervous System: | feeling tired, vivid dreams, hallucinations |
| Cardiovascular: | low heart rate, low blood pressure, congestive heart failure |
| Gastrointestinal: | nausea, vomiting, diarrhea |
| Metabolic: | low blood sugar without rapid heart rate, may worsen hypothyroidism (low thyroid) |

Interactions:

Insulin doses may need to be recalculated.

*It is strongly advised that this medication is not mixed with alcohol, illicit drugs or any medication unless consultation with a physician or a pharmacist occurs.

INDERAL

Nursing, Case Management, Counseling and Parental Considerations:

Contraindicated in diabetes mellitus, asthma, during ethyl/ether anesthesia.

Use carefully in patients with congestive heart failure or respiratory disease.

Always check pulse before giving medication. The physician will establish a safe administrative range. If you detect an extreme, hold the dosage and call a physician.

Food may increase the absorption of propranolol.

The physician will typically increase or decrease this medication gradually.

Children believed to be overdosed should receive immediate medical attention.

A responsible adult should supervise use in children.

Children may be encouraged to learn the purpose, dose and main side effects, as appropriate for age and condition.

RITALIN

Generic: methylphenidate hydrochloride

Classification: CNS stimulant used in the treatment of attention deficit disorders in children

How Supplied: Tablets: 5 mg, 10 mg, 20 mg
Sustained Release Tablets: 20 mg
Extended Release Capsules: 20 mg
Extended Release Tablets: 10 mg, 18 mg, 20 mg, 36 mg, 54 mg

Mechanism of Action:

Not entirely understood, but presumably activates the brain stem arousal system and cortex to produce its stimulant effect.

Indications and Dosage:

For Attention Deficit Disorders. Initial dose 5 mg 2x daily (btw. Breakfast and lunch), increase 5-10 mg weekly. Daily dosage above 60 mg not recommended. Ritalin SR tablets have duration of action of 8 hours. Also indicated for Tourette 's syndrome.

Adverse Reactions:

Should not be used in children under 6 years of age.

Central Nervous System: nervousness, insomnia, drowsiness, blood pressure changes

Cardiovascular: tachycardia, arrhythmia

Gastrointestinal: abdominal pain, weight loss, liver problems

Interactions:

Should not be used to treat severe depression, nor with psychotic children as it may exacerbate symptoms of behavior disturbance and thought disorder. Should not be used with children who exhibit bipolar characteristics. Should not be used for the treatment of normal symptoms of fatigue.

*It is strongly advised that this medication is not mixed with alcohol, illicit drugs or any medication unless consultation with a physician or a pharmacist occurs.

RITALIN (CONTINUED)

Nursing, Case Management, Counseling, and Parental Considerations:

Do not crush or allow patient to chew sustained release dosage form. Last daily dose should be given several hours before bedtime. (At least 6 hours).

Closely monitor blood pressure. Observe for signs of excessive stimulation.

Patient should avoid drinks containing caffeine, which increases the effect of the medication.

Monitor height and weight in children on prolonged therapy because drug has been associated with growth suppression. Recent evidence suggests that Ritalin may delay "growth spurt", but children will attain normal height when drug is discontinued.

Some children with ADHD only need stimulants during school hours (so they can focus on school work). By direction of the physician they may stop usage on weekends, holidays, school breaks and vacations. Other children are unable to function adequately without medication.

Children believed to be overdosed should receive immediate medical attention.

A responsible adult should supervise use in children.

Children may be encouraged to learn the purpose, dose and main side effects, as appropriate for age and condition.

STRATTERA

Generic: atomoxetine hydrochloride

Classification: selective norepinephrine reuptake inhibitor

How Supplied: Capsules: 10 mg, 18 mg, 25 mg, 40 mg, 60 mg

Indications and Dosage:

Attention deficit hyperactivity disorder (ADHD), as part of a total treatment program--
Adults and children and adolescents weighing more than 70 kg (154 lb). Initially, 40 mg P.O. daily; increase after a minimum of 3 days to a target total daily dose of 80 mg P.O. as a single dose in the morning or two evenly divided doses in the morning and late afternoon or early evening. After two to four weeks, total dosage may be increased to a maximum of 100 mg, if needed.

Children weighing 70 kg or less: Initially, 0.5 mg/kg P.O. daily; increase after a minimum of 3 days to a target total daily dose of about 1.2 mg/kg P.O. as a single dose in the morning or two evenly divided doses in the morning and late afternoon or early evening. Don't exceed 1.4 mg/kg or 100 mg daily, whichever is less.

ADJUST-A-DOSE: In patients with moderate hepatic impairment, reduce to 50% of the normal dose. In those with severe hepatic impairment, reduce to 25% of the normal dose.

Adverse Reactions:

Central Nervous System: irritability, somnolence, fever, fatigue, paresthesia, dizziness, headache, mood swings, insomnia

Cardiovascular: palpitations

Eyes, Ears, Nose, & Throat: rhinorrhea, sinusitis, ear infection

Gastrointestinal: dry mouth, nausea, dyspepsia, flatulence, decreased appetite, constipation, upper abdominal pain, vomiting

Genitourinary: urinary hesitation, urinary retention, dysmenorrhea, erectile problems

Metabolic: weight loss

Musculoskeletal: myalgia

Respiratory: cough

Skin: dermatitis, increased sweating

Other: rigors, weight loss, influenza, crying

STRATTERA (CONTINUED)

Interactions:

Drug-drug. Albuterol: Increases CV effects. Use together cautiously.

MAO inhibitors: Increases risk of neuroleptic malignant syndrome. Don't combine with an MAO inhibitor, and separate atomoxetine and MAO inhibitor doses by 14 days.

Pressor agents: Increases blood pressure. Use together cautiously.

Strong CYP 2D6 inhibitors (paroxetine, fluoxetine, quinidine): May increase atomoxetine level. In children weighing less than 70 kg, adjust dosage to 0.5 mg/kg daily and increase only to 1.2 mg/kg daily if symptoms don't improve after four weeks. In children and adults weighing more than 70 kg, start at 40 mg daily and increase only to 80 mg daily if symptoms don't improve after four weeks.

Nursing, Case Management, Counseling and Parental Considerations:

Contraindicated in patients hypersensitive to atomoxetine or to components of drug, in those who have used an MAO inhibitor within the past 14 days, and in those with narrow-angle glaucoma.

Use caution in patients with hypertension, tachycardia, or CV or cerebrovascular disease and in pregnant or breast-feeding patients.

KEPPRA

Generic: levetiracetam

Classification: Anticonvulsant

How Supplied: Tablets: 250mg, 500mg, 750mg
Oral Solution: 100 mg/ml

Mechanism of Action:

May act by inhibiting simultaneous neuronal firing that leads to seizure activity

Indications and Dosage:

Initially, 500 mg P.O. bid. Dosage can be increased by 500 mg bid at 2-week intervals to maximum of 1,500 mg bid

Adverse Reactions:

Central Nervous System: asthenia, headache, somnolence, dizziness, depression, vertigo, paresthesia, nervousness, hostility, emotional lability, ataxia, amnesia, anxiety.

Eyes, Ears, Nose, & Throat: diplopia, pharyngitis, rhinitis, sinusitis.

Gastrointestinal: anorexia.

Hematologic: leukopenia, neutropenia.

Musculoskeletal: pain.

Respiratory: cough, infection.

Interactions:

Drug-drug. Antihistamines, benzodiazepines, narcotics, tricyclic antidepressants, other drugs that cause drowsiness: May lead to severe sedation. Avoid concomitant use.

Drug-lifestyle. Alcohol: May lead to severe sedation. Discourage concomitant use.

Effects on lab test results: Decreased WBC and neutrophil counts.

Contraindications: Contraindicated in patients hypersensitive to drug

Nursing, Case Management, Counseling and Parental Considerations:

Patients with poor renal function need dosage adjustment.

Leukopenia and neutropenia have been reported with drug use. Use cautiously in immunocompromised patients, such as those with cancer or HIV infection.

Drug can be taken with or without food.

Use drug only with other anticonvulsants; it's not recommended for monotherapy.

Seizures can occur if drug is stopped abruptly. Tapering is recommended.

Monitor patients closely for such adverse reactions as dizziness, which may lead to falls.

Patient teaching:

Warn patient to use extra care when sitting or standing to avoid falling.

Advise patient to call prescriber and not to stop drug suddenly if adverse reactions occur.

Tell patient he may take with other prescribed antiseizure drugs.

Inform patient that drug can be taken with or without food.

KLONOPIN

Generic: clonazepam

Classification: Anticonvulsant

How Supplied: Drops: 2.5 mg/ml
Injection: 1 mg/ml
Tablets: 0.5 mg, 1 mg, 2 mg

Mechanism of Action:

Unknown. A benzodiazepine that probably acts by facilitating the effects of the inhibitory neurotransmitter gamma-aminobutyric acid.

Indications and Dosage:

Children up to age 10 or 30 kg (66 lb): initially, 0.01 to 0.03 mg/kg P.O. daily (not to exceed 0.05 mg/kg daily) in two or three divided doses. Increased by 0.25 to 0.5 mg third day to maximum; maintenance dose of 0.1 to 0.2 mg/kg daily, prn.

Adverse Reactions:

| | |
|-----------------------------|--|
| Central Nervous System: | drowsiness, ataxia, behavioral disturbances (especially in children), slurred speech, tremor, confusion, agitation, depression |
| Cardiovascular: | palpitations |
| Eyes, Ears, Nose, & Throat: | nystagmus, abnormal eye movements, sore gums |
| Gastrointestinal: | constipation, gastritis, change in appetite, nausea, anorexia, diarrhea |
| Genitourinary: | dysuria, enuresis, nocturia, urine retention |
| Hematologic: | leukopenia, thrombocytopenia, eosinophilia |
| Hepatic: | elevated liver function test results |
| Respiratory: | respiratory depression, chest congestion, shortness of breath |
| Skin: | rash |

KLONOPIN (CONTINUED)

Interactions:

Drug-drug. Carbamazepine, phenobarbital, phenytoin: lowered plasma clonazepam levels. Monitor closely.

CNS depressants: increased CNS depression. Avoid using together.

Drug-lifestyle. Alcohol use: increased CNS depression. Advise patient to avoid alcohol.

Effects on lab test results:

May increase liver function test values.

May increase eosinophil count.

May decrease WBC and platelet counts.

Contraindications. Contraindicated in patients with hypersensitivity to benzodiazepines and in those with significant hepatic disease or acute angle-closure glaucoma.

Nursing, Case Management, Counseling and Parental Considerations:

Use cautiously in patients with mixed type of seizure because drug may precipitate generalized tonic-clonic seizures. Also use cautiously in children and in patients with chronic respiratory disease or open-angle glaucoma.

Never withdraw suddenly because seizures may worsen. Call doctor at once if adverse reactions develop.

Monitor patient for over-sedation.

Monitor CBCs and liver function tests, as ordered.

Withdrawal symptoms are similar to those of barbiturates.

To reduce inconvenience of somnolence when drug is used for panic disorder, administer one dose at bedtime.

Advise patient to avoid driving and other potentially hazardous activities that require mental alertness until drug's CNS effects are known.

Instruct parent to monitor child's school performance because drug may interfere with attentiveness in school.

Instruct patient and parents never to stop drug abruptly because seizures may occur.

LAMICTAL

Generic: lamotrigine

Classification: Anticonvulsant

How Supplied: Tablets: 25mg, 100mg, 150mg ,200mg
Tablets chewable dispersible: 2mg, 5mg, 25mg

Mechanism of Action:

Unknown. May inhibit release of glutamate and aspartate (excitatory neurotransmitters) in the brain via an action at voltage-sensitive sodium channels.

Indications and Dosage:

Bipolar: Initially 25ml for 2 weeks, then 50ml for 2 weeks. Then can be increased at weekly intervals to a maximum of 200ml daily.

Adverse Reactions:

Central Nervous System: dizziness, headaches, ataxia, somnolence, fever, incoordination, insomnia tremor, depression, anxiety, seizures, irritability, speech disorder, decreased memory, aggravation reaction, concentration disturbance, sleep disturbance, emotional lability, vertigo, mind racing, malaise

Cardiovascular: Palpatations

Eyes, Ears, Nose, & Throat: blurred vision, vision abnormality, nystagmus, rhinitis, pharyngitis

Gastrointestinal: nausea, vomiting, diarrhea, dyspepsia, abdominal pain, constipation, anorexia, dry mouth

Genitourinary: dysmenorrhea, vaginitis, amenorrhea

Musculoskeletal: muscle spasms, neck pain

Respiratory: cough, dyspnea

Skin: rash, Stevens-Johnson Syndrome, toxic epidermal necrolysis, hot flashes

Other: flu-like symptoms, infection, chills, tooth disorder

LAMICTAL (CONTINUED)

Interactions:

Drug to Drug: Acetaminophen: May decrease therapeutic effects of Lamictal.

Valproic acid: may decrease clearance of lamictal, which will increase lamictal level, also decreases valproic acid level.

Drug-Lifestyle: Sun exposure: May cause photosensitivity reactions. Advise patient to avoid excessive sun exposure.

Nursing, Case Management, Counseling and Parental Considerations:

Safety and efficacy of drug in children younger than age 16 have not been established.

Stop drug immediately at first sign of a rash. When given for epilepsy, taper slowly over at least 2 weeks.

NEURONTIN

Generic: gabapentin

Classification: Anticonvulsant

How Supplied: Capsules: 100 mg, 300 mg, 400 mg
Oral solution: 250 mg/5 ml
Tablets: 100 mg, 300 mg, 400 mg, 600 mg, 800 mg

Mechanism of Action:

Unknown. Although structurally related to gamma-aminobutyric acid (GABA), drug doesn't interact with GABA receptors and isn't converted metabolically into GABA or a GABA agonist. It doesn't inhibit GABA reuptake and doesn't prevent degradation

Indications and Dosage:

NEW INDICATION: Adjunctive treatment of partial seizures in children ages 3 to 12: 10 to 15 mg/kg/day P.O. in three divided doses, adjusting over 3 days to reach effective dosages.

Effective dosage, children ages 5 to 12: 25 to 35 mg/kg/day P.O. in three divided doses.

Effective dosage, children ages 3 to 4: 40 mg/kg/day P.O. in three divided doses

Adverse Reactions:

Central Nervous System: fatigue, somnolence, dizziness, ataxia, nystagmus, tremor, nervousness, dysarthria, amnesia, depression, abnormal thinking, twitching, incoordination

Cardiovascular: peripheral edema, vasodilation

Eyes, Ears, Nose, & Throat: diplopia, rhinitis, pharyngitis, dry throat, coughing, amblyopia

Gastrointestinal: nausea, vomiting, dyspepsia, dry mouth, constipation, increased appetite, dental abnormalities

Genitourinary: impotence

Hematologic: leukopenia

Metabolic: weight gain

Musculoskeletal: back pain, myalgia, fractures

Skin: pruritus, abrasion

NEURONTIN (CONTINUED)

Interactions:

Drug-drug. Antacids: decreased absorption of gabapentin. Separate administration times by at least 2 hours.

Nursing, Case Management, Counseling and Parental Considerations:

First dose should be given at bedtime to minimize drowsiness, dizziness, fatigue, and ataxia.

If drug therapy is discontinued or alternative drug is substituted, do so gradually over at least 1 week, as ordered, to minimize risk of precipitating seizures.

Alert: Don't suddenly withdraw other anticonvulsants in patients starting gabapentin therapy.

Routine monitoring of plasma drug levels isn't necessary. Drug doesn't seem to alter plasma levels of other anticonvulsants.

Instruct patient to take first dose at bedtime to minimize adverse reactions.

Warn patient to avoid driving and operating heavy machinery until drug's CNS effects are known.

TOPAMAX

Generic: topiramate

Classification: Anticonvulsant

How Supplied: Capsules (sprinkles): 15 mg, 25 mg
Tablets: 25 mg, 50 mg, 100 mg, 200 mg

Mechanism of Action:

Unknown. Suggestive of a sodium channel blocking action. May also potentiate the activity of gamma-aminobutyrate (GABA) and antagonize the ability of kainate to activate the kainate/alpha-amino-3-hydroxy-5-methylisoxazole-4-propionic acid subtype of excitatory amino acid (glutamate) receptor.

Indications and Dosage:

Adjunctive therapy for adults with partial onset seizures or primary generalized tonic-clonic seizures.

Adults: adjust up to maximum daily dose of 400 mg P.O. in divided doses bid

Adjustment schedule is as follows: initially, 25 to 50 mg daily; adjust by increments of 25 to 50 mg/week.

Children ages 2 to 16: initially, 1 to 3 mg/kg daily for 1 week. Then adjust dosage at 1- to 2-week intervals by 1 to 3 mg/kg daily. Usual dose 5 to 9 mg/kg P.O. daily in divided doses bid

NEW INDICATION: Lennox-Gastaut syndrome--

Children ages 2 to 16 years old: initially 1 to 3 mg/kg daily for 1 week. Then adjust dosage at 1- to 2-week intervals by 1 to 3 mg/kg daily. Usual dose 5 to 9 mg/kg daily in divided doses bid

Adverse Reactions:

Central Nervous System: impaired coordination; aggressive reaction; agitation; apathy; asthenia; ataxia; confusion; depression; depersonalization; difficulty with concentration, attention, or language; difficulty with memory; dizziness; emotional lability; euphoria; generalized tonic-clonic seizures; hallucination; hyperkinesia; hypertonia; hypoesthesia; hypokinesia; insomnia; mood problems; nervousness; paresthesia; personality disorder; psychomotor slowing; psychosis; somnolence; speech disorders; stupor; suicide attempts; tremor; vertigo, malaise, fatigue

Cardiovascular: chest pain, palpitations, vasodilation, edema

Eyes, Ears, Nose, & Throat: abnormal vision, conjunctivitis, diplopia, eye pain, hearing problems, tinnitus, pharyngitis, sinusitis, nystagmus

TOPAMAX (CONTINUED)

Adverse Reactions (continued):

| | |
|-------------------|--|
| Gastrointestinal: | abdominal pain, anorexia, constipation, diarrhea, dry mouth, dyspepsia, flatulence, gastroenteritis, gingivitis, nausea, vomiting, taste perversion |
| Genitourinary: | amenorrhea, dysuria, dysmenorrhea, hematuria, impotence, intermenstrual bleeding, menstrual disorder, menorrhagia, micturition frequency, renal calculus, urinary incontinence, urinary tract infection, vaginitis, leukorrhea |
| Hematologic: | anemia, epistaxis, leukopenia |
| Hepatic: | elevated liver enzyme levels |
| Metabolic: | increased or decreased weight |
| Musculoskeletal: | arthralgia, back or leg pain, muscle weakness, myalgia, rigors |
| Respiratory: | bronchitis, coughing, dyspnea, upper respiratory tract infection |
| Skin: | acne, alopecia, decreased sweating, pruritus, rash, heat intolerance |
| Other: | breast pain, body odor, fever, flu-like syndrome, hot flashes, decreased libido, lymphadenopathy |

Interactions:

Drug-drug. Carbamazepine: decreased topiramate levels. Monitor patient.

Carbonic anhydrase inhibitors (acetazolamide, dichlorphenamide): increased risk of renal calculus formation. Avoid using together.

CNS depressants: possible topiramate-induced CNS depression as well as other adverse cognitive and neuropsychiatric events. Use with caution.

Oral contraceptives: decreased efficacy. Report changes in bleeding patterns.

Phenytoin: decreased topiramate levels and increased phenytoin levels. Monitor levels.

Valproic acid: decreased valproic acid and topiramate levels. Monitor patient.

Drug-lifestyle. Alcohol use: possible topiramate-induced CNS depression as well as other adverse cognitive and neuropsychiatric events. Use with caution.

TOPAMAX (CONTINUED)

Nursing, Case Management, Counseling and Parental Considerations:

Tell patient to avoid crushing or breaking tablets because of bitter taste.

Tell patient to immediately report visual changes.

Inform patient that drug can be taken with or without food.

Advise patient not to drive or operate hazardous machinery until CNS effects of drug are known because drug can cause somnolence, dizziness, confusion, and difficulty concentrating.

Tell woman that drug may decrease effectiveness of oral contraceptives.

Advise woman taking oral contraceptives to report change in her bleeding patterns.

TRILEPTAL

Generic: oxcarbazepine

Classification: Anticonvulsant

How Supplied: Tablets (film-coated): 150 mg, 300 mg, 600 mg
Oral suspension: 300 mg/5 ml (60 mg/ml)

Mechanism of Action:

Unknown. Antiseizure activity is thought to occur through blockade of voltage-sensitive sodium channels, which ultimately may prevent seizure spread in the brain. Increased potassium conductance and modulation of high-voltage activated calcium channels may also contribute to anticonvulsant effects.

Indications and Dosage:

Children ages 4 to 16: Initially 8 to 10 mg/kg/day P.O. divided bid, not to exceed 600 mg/day. The target maintenance dose depends on patient weight and should be divided bid. If patient weighs between 20 and 29 kg (44 and 64 lb), then target maintenance dose is 900 mg/day. If between 29 and 39 kg (64 and 86 lb), target maintenance dose is 1,200 mg/day. If more than 39 kg, target maintenance dose is 1,800 mg/day. Target doses should be achieved over 2 weeks.

Adjust-a-dose: For adults with creatinine clearance less than 30 ml/minute, initiate therapy at 150 mg P.O. bid (one-half usual starting dose), and increase slowly to achieve desired response.

Adverse Reactions:

Central Nervous System: fatigue, asthenia, feeling abnormal, headache, dizziness, somnolence, ataxia, abnormal gait, insomnia, tremor, nervousness, agitation, abnormal coordination, speech disorder, confusion, anxiety, amnesia, aggravated seizures, hypoesthesia, emotional lability, impaired concentration, vertigo.

Cardiovascular: hypotension, edema, chest pain.

Eyes, Ears, Nose, & Throat: nystagmus, diplopia, abnormal vision, abnormal accommodation, rhinitis, sinusitis, pharyngitis, epistaxis, ear ache.

Gastrointestinal: nausea, vomiting, abdominal pain, diarrhea, dyspepsia, constipation, gastritis, anorexia, dry mouth, rectal hemorrhage, taste perversion, thirst.

Genitourinary: urinary tract infection, urinary frequency, vaginitis.

TRILEPTAL (CONTINUED)

Adverse Reactions:

| | |
|------------------|---|
| Metabolic: | hyponatremia, weight increase. |
| Musculoskeletal: | muscle weakness, back pain. |
| Respiratory: | upper respiratory tract infection, coughing, bronchitis, chest infection. |
| Skin: | acne, hot flushes, purpura, rash, bruising, increased sweating. |
| Other: | fever, allergy, lymphadenopathy, infection, toothache. |

Interactions:

Drug-drug. Carbamazepine, valproic acid, verapamil: Decreased serum levels of active metabolite of oxcarbazepine. Monitor patient and serum levels closely.

Felodipine: Decreased felodipine level. Monitor patient closely.

Hormonal contraceptives: Decreased plasma levels of ethynylestradiol and levonorgestrel, rendering oral contraceptives less effective. Women of childbearing age should use alternative forms of contraception.

Phenobarbital: Decreased serum levels of active metabolite of oxcarbazepine; increased phenobarbital level. Monitor patient closely.

Phenytoin: Decreased serum levels of active metabolite of oxcarbazepine; may increase phenytoin level in adults receiving high doses of oxcarbazepine. Monitor phenytoin levels closely when initiating therapy in these patients.

Drug-lifestyle. Alcohol: Increased CNS depression.

Discourage concomitant use.

Effects on test results: Decreased sodium and thyroxine levels.

Contraindications: Contraindicated in patients hypersensitive to drug or its components

TRILEPTAL (CONTINUED)

Nursing, Case Management, Counseling and Parental Considerations:

Alert: Between 25% and 30% of patients with history of hypersensitivity reaction to carbamazepine may develop hypersensitivities to oxcarbazepine. Question patient about carbamazepine hypersensitivity, and stop drug immediately if signs or symptoms of hypersensitivity occur.

Oxcarbazepine oral suspension should be shaken well before administration. Suspension can be mixed with water or may be swallowed directly from the syringe.

Oral suspension and tablets may be interchanged at equal doses.
Alert: Withdraw drug gradually to minimize potential for increased seizure frequency.

Watch for signs and symptoms of hyponatremia, including nausea, malaise, headache, lethargy, confusion, and decreased sensation.

Monitor serum sodium levels in patients receiving oxcarbazepine for maintenance treatment, especially patients receiving other therapies that may decrease serum sodium levels.

Oxcarbazepine use has been linked to several nervous system–related adverse reactions, including psychomotor slowing, difficulty with concentration, speech or language problems, somnolence, fatigue, and coordination abnormalities, such as ataxia and gait disturbances.

Patient teaching:

Drug may be taken with or without food.

Tell patient to contact prescriber before interrupting or stopping drug.

Advise patient to report signs and symptoms of hyponatremia, such as nausea, malaise, headache, lethargy, and confusion.

Caution patient to avoid driving and other potentially hazardous activities that require mental alertness until effects of drug are known.

Instruct woman using oral contraceptives to use alternative form of contraception while taking drug.

Tell patient to avoid alcohol while taking drug.

Advise patient to inform prescriber if he has ever experienced hypersensitivity reaction to carbamazepine.

ZONEGRAN

Generic: zonisamide

Classification: Anticonvulsant

How Supplied: Capsules: 25 mg, 50 mg, 100 mg

Mechanism of Action:

Unknown. May stabilize neuronal membranes and suppress neuronal hyper synchronization.

Indications and Dosage:

Initially, 100 mg as a single daily dose for 2 weeks. Then dose may be increased to 300 and 400 mg daily with the dose stable for at least 2 weeks at each level. Doses may be given once or twice a day except for the daily dose of 100 mg at the start of therapy.

Maximum dose is 600 mg/day.

Adverse Reactions:

Central Nervous System: headache, dizziness, ataxia, confusion, difficulties in concentration or memory, mental slowing, agitation or irritability, depression, insomnia, anxiety, nervousness, schizophrenic or schizophreniform behavior, somnolence, fatigue, speech disorders, difficulties in verbal expression

Eyes, Ears, Nose, & Throat: taste perversion, tinnitus, rhinitis

Gastrointestinal: anorexia, nausea, vomiting, diarrhea, constipation, dry mouth, abdominal pain

Genitourinary: kidney stones

Respiratory: cough

Interactions:

Drug-drug: Clearance of Zonegran is increased by carbamazepine, phenobarbital, and valproate. Monitor patient closely.

Contraindicated in patients hypersensitive to drug or to sulfonamides.

ZONEGRAN (CONTINUED)

Nursing, Case Management, Counseling and Parental Considerations:

Monitor body temperature, especially in summer, because decreased sweating has occurred (especially in patients younger than 17 and younger) resulting in heatstroke and dehydration.

Reduce dosage or discontinue drug gradually. Increase fluid intake and urine output to help prevent kidney stones.

Instruct patient to take with or without water and not to break or bite the capsule.

Tell patient to drink 6-8 glasses of water daily.

Tell patient to contact prescriber immediately if patient develops sudden back pain, abdominal pain, pain when urinating, bloody or dark urine, fever, sore throat, mouth sores or easy bruising, speech or language problems.

ANAFRANIL

Generic: clomipramine hydrochloride

Classification: Antidepressant

How Supplied: Tablets: 25 mg, 50 mg, 75 mg

Mechanism of Action:

Clomipramine is a tricyclic agent with both antidepressant and antiobsessional properties. Like other tricyclics, clomipramine inhibits norepinephrine and serotonin uptake into central nerve terminals, possibly by blocking the membrane-pump of neurons, thereby increasing the concentration of transmitter monoamines at receptor sites. Clomipramine is presumed to influence depression and obsessive and compulsive behavior through its effects on serotonergic neurotransmission. The actual neurochemical mechanism is unknown, but clomipramine's capacity to inhibit serotonin reuptake is thought to be important.

Indications and Dosage:

For the treatment of depression: Clomipramine also appears to have a mild sedative effect which may be helpful in alleviating the anxiety component often accompanying depression.

For the treatment of obsessions and compulsions in patients with obsessive compulsive disorder (OCD): The obsessions and compulsions must cause marked distress, be time-consuming, or significantly interfere with social or occupational functioning.

The effectiveness of Clomipramine for long-term use (i.e. for more than 10 weeks) has not been systematically evaluated in placebo-controlled trials. The physician who elects to use Clomipramine for extended periods should periodically re-evaluate the long term usefulness of the drug for the individual patient.

For Obsessive Compulsive Disorders:

In children aged 10 to 17 years, an initial dose of 25 mg/day is recommended. Dosage may be increased by 25 mg increments, as tolerated, at 3 to 4 day intervals. By the end of 2 weeks, patients may be titrated up to 100 to 150 mg/day or 3 mg/kg, whichever is lower. Thereafter, the dose may be gradually increased to 200 mg or 3 mg/kg whichever is lower. A total daily dose above 200 mg should not be used in children or adolescents.

ANAFRANIL (CONTINUED)

Adverse Reactions:

Cardiovascular:

Tricyclic antidepressants, particularly in high doses, have been reported to produce sinus tachycardia, changes in conduction time and arrhythmias. A few instances of unexpected death have been reported in patients with cardiovascular disorders. Myocardial infarction and stroke have also been reported with drugs of this class. Therefore, Clomipramine should be administered with extreme caution to patients with a history of cardiovascular disease, especially those who have a history of conduction disorders, those with circulatory lability and elderly patients. It also has a hypotensive action which may be detrimental in these circumstances. In such cases, treatment should be initiated at low doses with progressive increases only if required and tolerated, and the patients should be under close surveillance at all dosage levels. Monitoring of cardiac function and the ECG is indicated in such patients.

Since Clomipramine may produce sedation, particularly during the initial phase of therapy, patients should be cautioned about the danger of engaging in activities requiring mental alertness, judgment and physical coordination.

Electrocardiogram:

Abnormalities have been observed in patients treated with Clomipramine. The most common ECG changes were premature ventricular contractions (PVCs), ST-T wave changes, and abnormalities in intraventricular conduction. These changes were rarely associated with significant clinical symptoms. Nevertheless, caution is necessary in treating patients with heart diseases, as well as elderly subjects. In these patients cardiac function should be monitored and ECG examinations performed during long-term therapy. Gradual dose titration is also recommended.

Hepatic Changes:

Clomipramine has occasionally been associated with elevations in AST (SGOT) and ALT (SGPT) of potential clinical significance (i.e. values greater than 3 times the upper limit of normal). In the majority of cases, these enzyme elevations were not associated with other clinical findings suggestive of hepatic injury.

Isolated cases of obstructive jaundice have been reported. Caution is indicated in treating patients with known liver disease, and periodic monitoring of hepatic function is recommended in such patients.

ANAFRANIL (CONTINUED)

Adverse Reactions (continued):

| | |
|-------------------------|--|
| Hematologic Changes: | Isolated cases of bone marrow depression with agranulocytosis have been reported. Leukocyte and differential blood cell counts are recommended in patients receiving treatment with Clomipramine over prolonged periods, and should be performed for patients who develop fever, an influenza infection, or sore throat. In the event of an allergic skin reaction, Clomipramine should be withdrawn. |
| Central Nervous System: | More than 30 cases of hyperthermia have been recorded by no domestic post-marketing surveillance systems. Most cases occurred when Clomipramine was used in combination with other drugs. When Clomipramine and a neuroleptic were used concomitantly, the cases were sometimes considered to be examples of a neuroleptic malignant syndrome. |
| Withdrawal Symptoms: | A variety of withdrawal symptoms have been reported in association with abrupt discontinuation of Clomipramine, including dizziness, nausea, vomiting, headache, malaise, sleep disturbance, hyperthermia and irritability. In addition, such patients may experience a worsening of psychiatric status. While the withdrawal effects of Clomipramine have not been systematically evaluated in controlled trials, they are well known with closely related tricyclic antidepressants, and it is recommended that the dosage be tapered gradually and the patient monitored carefully during discontinuation. |
| Metabolic Effects: | Tricyclic antidepressants have been associated with porphyrinogenicity in susceptible patients. |
| Renal Function: | It is also advisable to monitor renal function during long-term therapy with tricyclic antidepressants. |
| Dental Effects: | Lengthy treatment with tricyclic antidepressants can lead to an increased incidence of dental caries. |
| Endocrine Effects: | As with certain other psychotherapeutic drugs, Clomipramine elevates prolactin levels. Tissue culture experiments indicate that approximately one-third of human breast cancers are prolactin dependent in vitro, a factor of potential importance if the prescription of Clomipramine is contemplated in a patient with a previously detected breast cancer. Although disturbances such as galactorrhea, amenorrhea, gynecomastia, and impotence have been reported, the clinical significance of elevated serum prolactin levels is unknown for most patients. An increase in mammary neoplasms has been found in rodents after chronic administration of neuroleptic drugs. Neither clinical studies nor epidemiologic studies conducted to date, however, have shown an association between chronic administration of these drugs and mammary tumorigenesis. The available evidence is considered too limited to be conclusive at this time. |

ANAFRANIL (CONTINUED)

Adverse Reactions (continued):

Children: As Clomipramine has not been studied in patients under 10 years of age, specific recommendations for use in this age group cannot be provided. The long-term effects of Clomipramine on childhood growth and development have not been determined.

Interactions:

Patients should be warned that while taking Clomipramine their responses to alcoholic beverages, other CNS depressants (e.g. barbiturates, benzodiazepines or general anesthetics) or anticholinergic agents (e.g. atropine, biperiden, levodopa) may be exaggerated. When tricyclic antidepressants are given in combinations with anticholinergics or neuroleptics with an anticholinergic action, hyper excitation states or delirium may occur, as well as attacks of glaucoma.

Tricyclic antidepressants should not be employed in combination with anti-arrhythmic agents of the quinidine type.

Nursing, Case Management, Counseling and Parental Considerations:

Clomipramine should not be given in conjunction with or within 14 days of treatment with a MAO inhibitor. Hypertensive crises, hyperactivity, hyperpyrexia, spasticity, severe convulsions or coma, and death have been reported in patients receiving such combinations.

It is contraindicated during the acute recovery phase following myocardial infarction and in the presence of acute congestive heart failure.

Clomipramine is contraindicated in patients with existing liver or kidney damage and should not be administered to patients with a history of blood dyscrasias.

Clomipramine is contraindicated in patients with glaucoma, as the condition may be aggravated due to the atropine-like effects of the drug.

ATIVAN

Brand Name: Apo-Lorazepam, Ativan, Lorazepam Intensol, Novo-Lorazem, Nu-Loraz OTC

Generic: lorazepam

Classification: Anxiolytic

How Supplied: Injection: 2 mg/ml, 4 mg/ml
Oral solution (concentrated): 2 mg/ml
Tablets: 0.5 mg, 1 mg, 2 mg

Mechanism of Action:

Unknown. A benzodiazepine that probably potentiates the effects of GABA, depresses the CNS, and suppresses the spread of seizure activity.

Indications and Dosage:

Anxiety - Adults: 2 to 6 mg P.O. daily in divided doses. Maximum, 10 mg daily.

Insomnia from anxiety - Adults: 2 to 4 mg P.O. h.s.

Preoperative sedation - Adults: 0.05 mg/kg I.M. 2 hours before procedure. Total dose shouldn't exceed 4 mg. Or, 2 mg I.V. total or 0.044 mg/kg I.V., whichever is smaller. Larger doses up to 0.05 mg/kg I.V., to total of 4 mg, may be needed.

Status epilepticus(off-label use) - Adults and children: 0.05 to 0.1 mg/kg. Repeat dose q 10 to 15 minutes, p.r.n. Or, give adults 4 to 8 mg I.V.

Nausea and vomiting caused by emetogenic cancer chemotherapy (off-label use) - Adults: 2.5 mg P.O. the evening before and just after starting chemotherapy. Or, 1.5 mg/m² (usually up to a maximum dose of 3 mg) I.V. (over 5 minutes) 45 minutes before starting chemotherapy.

Adverse Reactions:

Central Nervous System: drowsiness, amnesia, insomnia, agitation, sedation, dizziness, weakness, unsteadiness, disorientation, depression, headache.

Cardiovascular: hypotension.

Eyes, Ears, Nose, & Throat: visual disturbances.

Gastrointestinal: abdominal discomfort, nausea, change in appetite.

ATIVAN (CONTINUED)

Interactions:

Drug-drug - CNS depressants: May increase CNS depression. Use together cautiously.

Digoxin: May increase digoxin level and risk of toxicity. Monitor patient and digoxin level closely.

Drug-herb - Kava: May increase sedation. Discourage use together.

Drug-lifestyle - Alcohol use: May cause additive CNS effects. Discourage use together.

Smoking: May decrease benzodiazepine effectiveness. Monitor patient closely.

Effects on lab test results

More Adverse Reactions:

May increase liver function test values.

Contraindications & cautions: Contraindicated in patients hypersensitive to drug, other benzodiazepines, or the vehicle used in parenteral dosage form; in patients with acute angle-closure glaucoma; and in pregnant women, especially in the first trimester.

Use cautiously in patients with pulmonary, renal, or hepatic impairment.

Use cautiously in elderly, acutely ill, or debilitated patients.

Nursing, Case Management, Counseling and Parental Considerations:

For I.M. administration, inject deeply into a muscle. Don't dilute.

Refrigerate parenteral form to prolong shelf life.

Monitor hepatic, renal, and hematopoietic function periodically in patients receiving repeated or prolonged therapy.

Alert: Use of this drug may lead to abuse and addiction. Don't stop drug abruptly after long-term use because withdrawal symptoms may occur.

Alert: Don't confuse lorazepam with alprazolam.

Patient teaching:

When used as a drug before surgery, lorazepam causes substantial preoperative amnesia. Patient teaching requires extra care to ensure adequate recall. Provide written materials or inform a family member, if possible.

ATIVAN (CONTINUED)

Nursing, Case Management, Counseling and Parental Considerations: (con't)

Warn patient to avoid hazardous activities that require alertness or good coordination until effects of drug are known.

Tell patient to avoid alcohol while taking drug.

Notify patient that smoking may decrease drug's effectiveness.

Warn patient not to stop drug abruptly because withdrawal symptoms may occur.

BUSPAR

Generic: buspirone hydrochloride

Classification: Anxiolytic

How Supplied: Tablets: 5 mg, 10 mg, 15 mg, 30 mg

Mechanism of Action:

Unknown. May inhibit neuronal firing and reduce serotonin turnover in cortical, amygaloid and septohippocampal tissues.

Indications and Dosage:

Anxiety disorders, short term relief of anxiety. Initially, 5 mg tid; usual maintenance dose is 20 to 30 mg in divided doses. Do not exceed 60 mg daily.

Adverse Reactions:

Central Nervous System: dizziness, drowsiness, nervousness

Gastrointestinal: dry mouth, nausea, diarrhea, abdominal distress

Interactions:

Alcohol, other CNS depressants: increased CNS depression. Avoid concomitant use. MAO inhibitors: may elevate blood pressure, Avoid concomitant use.

**It is strongly advised that this medication is not mixed with alcohol, illicit drugs, or any medication unless consultation with a physician or pharmacist occurs.

Nursing, Case Management, Counseling and Parental Considerations:

The full effect of the drug may not be seen for 1-2 weeks.

Do not use with an MAO inhibitor.

Symptoms of overdose may include:

- dizziness, drowsiness
- nausea, vomiting, severe stomach upset
- unusually small pupils

Children may be encouraged to learn the purpose, dose and main side effect, as appropriate for age and condition.

A responsible adult should supervise use in children.

Children believed to be overdosed should receive immediate medical treatment.

CELEXA

Generic: citalopram HBr, citalopram hydrobromide

Classification: Antidepressant, Selective serotonin reuptake inhibitor.

How Supplied: Tablets: 10 mg, 20 mg, 40 mg
Solution: 10mg/5ml

Mechanism of Action:

The mechanism of action is presumed to be linked to potentiation of serotonin activity in the CNS resulting from its inhibition of CNS neuronal uptake of serotonin.

Indications and Dosage:

Celexa is indicated for the treatment of depression. Initial dose of 20 mg once daily, generally with an increase to 40 mg. Dose increases should occur in increments of 20 mg at intervals of no less than a week. Doses above 40 mg are not recommended.

Adverse Reactions:

| | |
|-------------------------|---|
| Central Nervous System: | dry mouth, tremor, sweating increased, migraine |
| Cardiovascular: | tachycardia |
| Gastrointestinal: | nausea, diarrhea, dyspepsia, vomiting, abdominal pain |
| General: | fatigue, fever |
| Psychiatric: | somnolence, insomnia, anxiety, anorexia, agitation, decreased libido, yawning |
| Respiratory: | rhinitis, sinusitis |
| Sexual: | ejaculation disorder, impotence |

Interactions:

Alcohol. MAO inhibitors. Celexa should be used cautiously in patients with a history of mania. Safety and effectiveness with pediatric patients has not been established.

**It is strongly advised that this medication is not mixed with alcohol, illicit drugs, or any medication unless consultation with a physician or pharmacist occurs.

CELEXA (CONTINUED)

Nursing, Case Management, Counseling and Parental Considerations:

Do not use within 14 days of an MAO inhibitor.

Do not take with another serotonin-like drug, could result in serotonin syndrome:

- Labile blood pressure and temperature
- Diarrhea

Children may be encouraged to learn purpose, dose and main side effect, as appropriate for age and condition.

A responsible adult should supervise use in children,

Children believed to be overdosed should receive immediate medical treatment.

CYMBALTA

Generic: Duloxetine Hydrochloride

Classification: Antidepressant

How Supplied: 20ml, 30 ml and 60 ml capsules (delayed release)

Mechanism of Action:

Unknown. May inhibit serotonin and norepinephrine uptake in the CNS.

Indications and Dosage:

Major Depressive Disorder: Initially, 20 mg P.O. b.i.d.; then, 60 mg P.O. once daily or divided in two equal doses. Maximum, 60 mg daily.

Adverse Reactions:

- | | |
|-----------------------------|---|
| Central Nervous System: | anxiety, asthenia, dizziness, fatigue, fever, headache, hypoesthesia, initial insomnia, insomnia, irritability, lethargy, nervousness, nightmares, restlessness, sleep disorder, somnolence, suicidal thoughts, tremor. |
| Cardiovascular: | hot flushes, hypertension, increased heart rate. |
| Eyes, Ears, Nose, & Throat: | blurred vision, nasopharyngitis, pharyngolaryngeal pain. |
| Gastrointestinal: | constipation, diarrhea, dry mouth, dyspepsia, gastritis, nausea, vomiting. |
| Genitourinary: | abnormal orgasm, abnormally increased frequency of urinating, delayed or dysfunctional ejaculation, dysuria, erectile dysfunction, urinary hesitation. |
| Metabolic: | decreased appetite, hypoglycemia, increased appetite, weight gain or loss. |
| Musculoskeletal: | muscle cramps, myalgia. |
| Respiratory: | cough. |
| Skin: | increased sweating, night sweats, pruritus, rash. |
| Other: | decreased libido, rigors. |

CYMBALTA (CONTINUED)

Interactions:

Drug-drug: Antiarrhythmics of type 1C (flecainide, propafenone), phenothiazines (except thioridazine): May increase levels of these drugs. Use together cautiously.

CNS drugs: May increase adverse effects. Use together cautiously.

CYP1A2 inhibitors (cimetidine, fluvoxamine, certain quinolones): May increase duloxetine level. Avoid using together.

CYP2D6 inhibitors (fluoxetine, paroxetine, quinidine): May increase duloxetine level. Use together cautiously.

Drugs that reduce gastric acidity: May cause premature breakdown of duloxetine's protective coating and early release of the drug. Monitor patient for effects.

MAO inhibitors: May cause hyperthermia, rigidity, myoclonus, autonomic instability, rapid fluctuations of vital signs, agitation, delirium, and coma. Avoid use within 2 weeks after MAO inhibitor therapy; wait at least 5 days after stopping duloxetine before starting MAO inhibitor.

Thioridazine: May prolong the QT interval and increase risk of serious ventricular arrhythmias and sudden death. Avoid using together.

Tricyclic antidepressants (amitriptyline, nortriptyline, imipramine): May increase levels of these drugs. Reduce tricyclic antidepressant dose, and monitor drug levels closely.

Nursing, Case Management, Counseling and Parental Considerations:

Drug-lifestyle:

Alcohol use: May increase risk of liver damage. Discourage use together.

Effects on lab test results:

May increase alkaline phosphatase, ALT, AST, bilirubin, and CK levels.

Contraindications & cautions:

Contraindicated in patients hypersensitive to drug or its ingredients, patients taking MAO inhibitors, patients with uncontrolled angle-closure glaucoma, and patients with a creatinine clearance less than 30 ml/minute. Drug isn't recommended for patients with hepatic dysfunction or end-stage renal disease. Use cautiously in patients with a history of mania or seizures, patients who drink substantial amounts of alcohol, patients with hypertension, patients with controlled angle-closure glaucoma, and patients with conditions that slow gastric emptying.

CYMBALTA (CONTINUED)

Nursing Considerations

Monitor patient for worsening of depression or suicidal behavior, especially when therapy starts or dosage changes.

Treatment of overdose is symptomatic. Don't induce emesis; gastric lavage or activated charcoal may be performed soon after ingestion or if patient is still symptomatic. Because drug undergoes extensive distribution, forced diuresis, dialysis, hemoperfusion, and exchange transfusion aren't useful. Contact a poison control center for information.

If taken with tricyclic antidepressants, duloxetine metabolism will be prolonged, and patient will need extended monitoring.

Periodically reassess patient to determine the need for continued therapy.

Decrease duloxetine dosage gradually, and watch for symptoms that may arise when drug is stopped, such as dizziness, nausea, headache, paresthesia, vomiting, irritability, and nightmares.

If intolerable symptoms arise when decreasing or stopping drug, restart at previous dose and decrease even more gradually.

Monitor blood pressure periodically during treatment.

Use during the third trimester of pregnancy may cause neonatal complications including respiratory distress, cyanosis, apnea, seizures, vomiting, hypoglycemia, and hyperreflexia, which may require prolonged hospitalization, respiratory support, and tube feeding. Consider potential benefit of drug to the mother versus risks to the fetus.

Patient Teaching:

Alert: Warn families or caregivers to report signs of worsening depression (such as agitation, irritability, insomnia, hostility, impulsivity) and signs of suicidal behavior to prescriber immediately.

Tell patient to consult his prescriber or pharmacist if he plans to take other prescription or OTC drugs or an herbal or other dietary supplement.

Instruct patient to swallow capsules whole and not to chew, crush, or open them because they have an enteric coating.

Urge patient to avoid activities that are hazardous or require mental alertness until patient knows the affect of the drug.

Warn against drinking substantial amounts of alcohol while taking duloxetine. If patient takes duloxetine for depression, explain that it may take 1 to 4 weeks to notice an effect.

EFFEXOR & EFFEXOR XR

Generic: venlafaxine hydrochloride

Classification: Antidepressant

How Supplied: Tablets: 25 mg, 37.5 mg, 50 mg, 75 mg, 100 mg
Tablets: 25 mg, 37.5 mg, 75 mg, 100 mg extended release
Capsules: (extended release) 37.5 mg, 75 mg, 150 mg

Mechanism of Action:

Blocks reuptake of norepinephrine and serotonin into neurons in the CNS.

Indications and Dosage:

Initially, 37.5 mg in two doses, then in increments according to response. Usual maximum for moderate depression is 225 mg, for more severe dosage may be as high as 375 mg. Initial dose of the extended release is 75 mg although some patients may need 37.5 mg for 4-7 days.

Adverse Reactions:

| | |
|-------------------------|--|
| Central Nervous System: | headache, dizziness, somnolence, nervousness, insomnia |
| Cardiovascular: | hypertension |
| Gastrointestinal: | nausea, constipation, dry mouth, anorexia |
| Sexual: | abnormal ejaculation, impotence |

Interactions:

MAO inhibitors: may precipitate a syndrome similar to neuroleptic malignant syndrome, do not start within 14 days of stopping an MAO inhibitor.

**It is strongly advised that this medication is not mixed with alcohol, illicit drugs, or any medication unless consultation with a physician or pharmacist occurs.

Nursing, Case Management, Counseling and Parental Considerations:

The physician should periodically evaluate the long-term usefulness of the drug for the individual patient.

Symptoms of overdose may include:

- convulsions
- rapid heartbeat
- sleepiness

EFFEXOR & EFFEXOR XR (CONTINUED)

Nursing, Case Management, Counseling and Parental Considerations (Continued):

Do not use within 14 days of an MAO inhibitor.

Children may be encouraged to learn the purpose, dose and main side effect, as appropriate for age and condition.

A responsible adult should supervise use in children.

Children believed to be overdosed should receive immediate medical attention.

DESYREL

Generic: trazodone hydrochloride

Classification: Antidepressant

How Supplied: Tablets: 50 mg, 100 mg, 150 mg, 300 mg

Mechanism of Action:

Unknown. Inhibits serotonin uptake in the brain. Not a tricyclic derivative.

Indications and Dosage:

Initial dosage, 150 mg P.O. daily in divided doses; then, increased by 50 mg daily every 3 to 4 days, prn. Dosage ranges from 150 to 400 mg daily. Maximum daily dose is 600 mg for inpatients and 400 mg for outpatients

Adverse Reactions:

Central Nervous System: drowsiness, dizziness, nervousness, fatigue, confusion, tremor, weakness, hostility, anger, nightmares, vivid dreams, headache, insomnia, syncope.

Cardiovascular: orthostatic hypotension, tachycardia, hypertension, shortness of breath, ECG changes.

Eyes, Ears, Nose, & Throat: blurred vision, tinnitus, nasal congestion.

Gastrointestinal: dry mouth, dysgeusia, constipation, nausea, vomiting, anorexia.

Genitourinary: urine retention; priapism, possibly leading to impotence; hematuria.

Hematologic: anemia.

Hepatic: elevated liver function test values.

Skin: rash, urticaria, diaphoresis.

Other: decreased libido.

DESYREL (CONTINUED)

Interactions:

Drug-drug. Antihypertensives: increased hypotensive effect of trazodone.

Antihypertensive dosage may have to be decreased.

Clonidine, CNS depressants: enhanced CNS depression. Avoid using together.

Digoxin, phenytoin: may increase serum levels of these drugs. Monitor patient for toxicity.

MAO inhibitors: effects unknown. Use together with extreme caution.

Drug-herb. Ginkgo biloba: increased risk of sedation. Advise patient to avoid herb.

St. John's Wort: serotonin syndrome may result. Advise patient to avoid herb.

Drug-lifestyle. Alcohol use: enhanced CNS depression. Advise patient to avoid alcohol.

Nursing, Case Management, Counseling and Parental Considerations:

Administer drug after meals or a light snack for optimal absorption and to decrease incidence of dizziness.

Record mood changes. Monitor patient for suicidal tendencies, and allow only minimum supply of drug.

Warn patient to avoid activities that require alertness and good psychomotor coordination until CNS effects of drug are known. Drowsiness and dizziness usually subside after first few weeks.

Teach caregivers how to recognize signs and symptoms of suicidal tendency or suicidal ideation

LEXAPRO

Generic: escitalopram oxalate

Classification: Antidepressant

How Supplied: Tablets: 5 mg, 10 mg, 20 mg
Oral Solution: 5 mg/5 ml

Mechanism of Action:

Selective Serotonin Reuptake Inhibitor

Indications and Dosage:

Major depressive disorder--Adults: Initially, 10 mg/day P.O. as a single daily dose; if necessary may increase to 20 mg/day after a 1-week minimum trial period.

Adverse Reactions:

Central Nervous System: somnolence, dizziness, insomnia, fatigue.

Gastrointestinal: nausea, dry mouth, constipation, diarrhea, indigestion, abdominal pain, decreased appetite.

Genitourinary: ejaculatory delay, impotence, anorgasmia, decreased libido.

Respiratory: rhinitis, sinusitis.

Skin: sweating.

Other: flu-like symptoms.

Interactions:

Drug-drug. Carbamazepine: Increases escitalopram clearance. Monitor patient for expected antidepressant effects, and adjust dosage as needed.

Cimetidine: May increase certain pharmacokinetic values of Citalopram. Use together cautiously.

Citalopram: May cause serious toxic effects. Avoid use together.

Nursing, Case Management, Counseling and Parental Considerations:

Contraindicated in patients taking an MAO inhibitor and in those allergic to escitalopram oxalate, Citalopram, or any component of the drug. Use cautiously in patients with severe renal impairment or with hepatic impairment, in elderly patients, and in those with illnesses of metabolism or hemodynamic response. Use cautiously also in pregnant or breast-feeding patients and in those who are suicidal.

LUVOX

Generic: fluvoxamine maleate

Classification: Central Nervous System Drug

How Supplied: Tablets: 25 mg, 50 mg, 100 mg

Mechanism of Action:

Unknown. Selectively inhibits the presynaptic neuronal uptake of serotonin, which is thought to improve OCDs.

Indications and Dosage:

Depression:

For the symptomatic relief of depressive illness.

The effectiveness of fluvoxamine in long-term use (i.e., for more than 5 to 6 weeks) has not been systematically evaluated in controlled trials. Therefore, the physician who elects to use fluvoxamine for extended periods should periodically re-evaluate the long-term usefulness of the drug for the individual patient.

Obsessive-Compulsive Disorder:

Fluvoxamine has been shown to significantly reduce the symptoms of obsessive-compulsive disorder. The obsessions or compulsions must be experienced as intrusive, markedly distressing, time consuming, or interfering significantly with the person's social or occupational functioning.

Dosage: Obsessive Compulsive Disorder

Treatment should be initiated at the lowest possible dose (50 mg) given once daily at bedtime, and then increased to 100 mg daily at bedtime after a few days, as tolerated. The effective daily dose usually lies between 100 and 300 mg, and should be adjusted gradually according to the individual response of the patient, up to a maximum of 300 mg. If no improvement is observed within 10 weeks, treatment with fluvoxamine should be reconsidered.

Dosage increases should be made in 50 mg increments. Doses above 150 mg should be divided so that a maximum of 150 mg is given in the bedtime dose. Fluvoxamine should be swallowed with water and without chewing.

Adverse Reactions:

Central Nervous System: headache, asthenia, somnolence, insomnia, nervousness, dizziness, tremor, agitation, anxiety, depression, CNS stimulation. May have drug interactions via P450 3A4, including caffeine.

Cardiovascular: palpitations, vasodilation

Eyes, Ears, Nose, & Throat: amblyopia

LUVOX (CONTINUED)

Adverse Reactions (Continued):

| | |
|-------------------|--|
| Gastrointestinal: | nausea, diarrhea, constipation, dyspepsia, anorexia, vomiting, flatulence, dry mouth, taste perversion |
| Genitourinary: | abnormal ejaculation, urinary frequency, impotence, anorgasmia, urine retention |
| Respiratory: | upper respiratory tract infection, yawning |
| Skin: | sweating |
| Other: | tooth disorder, flu syndrome, chills, decreased libido |

Interactions:

| | |
|-----------------|---|
| Drug-drug: | Benzodiazepines: Lithium may enhance effect of Luvox. |
| Drug-lifestyle: | Decreased drug effectiveness: Urge patient to stop smoking. |

Nursing, Case Management, Counseling and Parental Considerations:

Record mood changes, monitor patient for suicidal tendencies, and provide only a minimum supply of drug. Inform patient that several weeks of therapy may be needed to obtain full effect. Advise patient not to stop drug until directed by prescriber.

NORPRAMIN

Generic: desipramine hydrochloride

Classification: Tricyclic Antidepressant

How Supplied: Tablets: 10 mg, 25 mg, 50 mg, 75 mg, 100 mg, 150 mg

Mechanism of Action:

Increases the synaptic concentration of serotonin and/or norepinephrine in the central nervous system by inhibition of their reuptake by the presynaptic membrane.

Indications and Dosage:

Treatment of various forms of depression, often in conjunction with psychotherapy. May help control symptoms of post traumatic stress symptoms such as nightmares and flashbacks. May decrease ADHD symptoms. Adolescents: 25-50 mg/day. Gradually increase to 100 mg/day. Maximum dosage 150 mg/day. Children 6-12years: 10-30 mg/day.

Adverse Reactions:

- Central Nervous System: sleepiness, confusion, dizziness
- Cardiovascular: irregular heart action, low blood pressure, rare causes of cardiac death have been reported.
- Gastrointestinal: constipation, nausea, vomiting, weight gain, dry mouth
- Skin: sensitivity to light
- Blood: blood toxins

Interactions:

May decrease effects of Clonidine; may increase effects of central nervous system depressants. Used with MAO inhibitors may cause high fever, rapid heart rate, high blood pressure, seizures and death. Use with great caution if combined with an SSRI; need to monitor blood levels and do an EKG.

*It is strongly advised that this medication is not mixed with alcohol, illicit drugs or any medication unless consultation with a physician or a pharmacist occurs.

NORPRAMIN (Continued)

Nursing, Case Management, Counseling and Parental Considerations:

EKG's (electrocardiograms) are often ordered prior to administration and periodically during treatment. Therapeutic blood levels need to be checked periodically. Toxic levels should be reported to the physician immediately.

- Therapeutic- 150-300 mg/ml
- possible toxicity > 300 mg/ml
- Toxic > 1000 mg/ml

Children who report cardiac problems (rapid or irregular heartbeat) should receive prompt medical attention.

A responsible adult should supervise use in children.

Children believed to be overdosed should receive immediate medical attention.

Children can be encouraged to learn the purpose, dose and main side effects, as appropriate for age and condition.

PAXIL & PAXIL CR

Generic: paroxetine hydrochloride

Classification: Antidepressant
Selective Serotonin Reuptake Inhibitor

How Supplied: Tablets: 10 mg, 20 mg, 30 mg, 40 mg
Controlled Release Tablets: 12.5 mg, 25 mg, 37.5 mg
Oral Suspension: 10 mg/5 ml

Mechanism of Action:

Blocks the reuptake of serotonin into nerve terminals within the central nervous system.

Indications and Dosage:

Depression. Dose and safety not established in children. Adult dosage: initial 20 mg; maximum 50 mg daily.

Adverse Reactions:

Central Nervous System: blurred vision, sleepiness, dizziness, insomnia

Cardiovascular: postural low blood pressure

Gastrointestinal: nausea, vomiting, increased appetite

Interactions:

Used with MAO inhibitors may increase adverse reactions. Dosage adjustments may be needed with phenobarbital.

*It is strongly advised that this medication is not mixed with alcohol, illicit drugs or any medication unless consultation with a physician or a pharmacist occurs.

Nursing, Case Management, Counseling and Parental Considerations:

Use cautiously in seizure disorder.

Because of the potential for suicide in depressed patients, the high risk patient should be closely supervised during the initial therapy. A limited number of tablets should be issued by the physician.

Responsible adult should supervise dosage in children.

Over dosage is usually associated with nausea, vomiting, drowsiness, rapid heart rate and dilated pupils.

Children believed to be overdosed should receive immediate medical treatment.

Children can be encouraged to learn the purpose, dose and main side effects, as appropriate for age and condition.

PROZAC & PROZAC WEEKLY & SARAFEM

| | |
|------------------------|--|
| Brand Name: | Prozac |
| Generic: | fluoxetine hydrochloride |
| Classification: | Antidepressant Selective Serotonin Reuptake Inhibitor |
| How Supplied: | Capsules: 90 mg (delayed release) Pulvules: 10 mg, 20 mg, 40 mg Oral Solution: 20 mg/5 ml Tablets: 10 mg, 20 mg |

Mechanism of Action:

Inhibits the central nervous system neuronal uptake of serotonin. Not a tricyclic derivative, considered an atypical antidepressant.

Indications and Dosage:

Short-term management of depressive illness. Children < 18 years: dose and safety not established; preliminary experience in children 6-17 years initial doses of 20 mg/day has been reported. Prozac Weekly Maintenance therapy for depression in stabilized patients: 90 mg P.O. once weekly dosing 7 days after last daily dose of Prozac 20 mg. Sarafem Premenstrual dysphonic disorder: 20 mg daily. Maximum dose 80 mg daily.

Adverse Reactions:

| | |
|-------------------------|--|
| Central Nervous System: | headache, nervousness, insomnia, drowsiness, anxiety |
| Skin: | Excessive sweating, rash, pruritus |
| Gastrointestinal: | nausea, diarrhea, dry mouth, anorexia, constipation |
| Metabolic: | low blood sugar, low salt |

Interactions:

With MAO inhibitors; high fever, seizures, coma. Fluoxetine may inhibit metabolism and increase effects of tricyclic antidepressants.

*It is strongly advised that this medication is not mixed with alcohol, illicit drugs or any medication unless consultation with a physician or a pharmacist occurs.

PROZAC & PROZAC WEEKLY & SARAFEM (CONTINUED)

Nursing, Case Management, Counseling, and Parental Considerations:

Prozac is contraindicated in patients with hypersensitivity to the drug and in patients taking MAO inhibitors within 14 days of starting therapy.

Fluoxetine is less sedating than other antidepressants but may cause dizziness or drowsiness in patients.

Because fluoxetine commonly causes insomnia and nervousness, patients should avoid taking the drug in the afternoon to avoid insomnia.

Rashes or itching, which usually occurs early in therapy, may respond to antihistamines or topical steroid ointments.

Advise patient to contact physician or nurse before using over the counter medications or any other drug.

The history of use in children is relatively short.

Children believed to be overdosed should receive immediate medical attention.

A responsible adult should supervise use in children.

Children can be encouraged to learn the purpose, dose and main side effects as appropriate for age and condition.

REMERON & REMERON SOLTABS

Generic: mirtazapine

Classification: Antidepressant

How Supplied: Orally disintegrating tablets: 15 mg, 30 mg, 45 mg
Tablets: 15 mg, 30 mg, 45 mg

Mechanism of Action:

Antidepressant action is thought to be from enhancement of central noradrenergic and serotonergic activity.

Indications and Dosage:

Depression--Initially, 15 mg P.O. at bedtime. Maintenance dosage ranges from 15 to 45 mg daily. Dosage adjustments should be made at intervals of no less than 1 to 2 weeks

Adverse Reactions:

| | |
|-------------------------|--|
| Central Nervous System: | somnolence, dizziness, asthenia, abnormal dreams, abnormal thinking, tremors, confusion. |
| Cardiovascular: | edema. |
| Gastrointestinal: | nausea, increased appetite, dry mouth, constipation. |
| Genitourinary: | urinary frequency. |
| Hepatic: | increased ALT levels. |
| Metabolic: | weight gain. |
| Musculoskeletal: | back pain, myalgia. |
| Respiratory: | dyspnea. |
| Other: | flu-like syndrome, peripheral edema, increased cholesterol and triglycerides. |

Interactions:

Drug-drug. Diazepam, other CNS depressants: possible additive CNS effects. Avoid using together.

MAO inhibitors: sometimes fatal reactions. Avoid using together.

Drug-lifestyle. Alcohol use: possible additive CNS effects. Advise patient not to use alcohol.

REMERON & REMERON SOLTABS (CONTINUED)

Nursing, Case Management, Counseling and Parental Considerations:

Contraindicated in patients with hypersensitivity to drug. Drug shouldn't be used with MAO inhibitor or within 14 days of initiating or discontinuing therapy with MAO inhibitor. At least 14 days should elapse after stopping mirtazapine before starting an MAO inhibitor.

Although incidence of agranulocytosis is rare, discontinue drug and monitor patient closely if he develops a sore throat, fever, stomatitis, or other signs and symptoms of infection with a low WBC count.

Monitor patient closely for signs and symptoms of dependence.

Lower dosages tend to be more sedating than higher dosages.

Tell patient not to break or crush the orally disintegrating tablet.

Tell patient to remove orally disintegrating tablet from blister pack and immediately dissolve it on his tongue.

Caution patient not to perform hazardous activities if somnolence occurs.

Tell patient to report signs and symptoms of infection, such as fever, chills, sore throat, mucous membrane ulceration, or flu like syndrome.

Instruct patient not to use alcohol or other CNS depressants while taking drug.

Stress importance of compliance with therapy.

Instruct patient not to take other medications without doctor's approval.

Tell woman of childbearing age to report suspected pregnancy immediately and to notify doctor if she is breast-feeding.

SERZONE

Generic: nefazodone hydrochloride

Classification: Antidepressant, SSRI

How Supplied: Tablets: 50 mg, 100 mg, 150 mg, 250 mg

Mechanism of Action:

Not precisely defined. Serzone increases neuronal uptake of serotonin and norepinephrine. It also occupies serotonin and alpha-adrenergic receptors in the CNS.

Indications and Dosage:

Depression, initially 200 mg a day in 2 divided doses. Dosage may be increased in increments of 100 to 200 mg a day at intervals of no less than 1 week. Usual dose is 300-600 mg daily.

Adverse Reactions:

| | |
|-------------------------|--|
| Central Nervous System: | headache, somnolence, dizziness, light-headedness, confusion |
| Cardiovascular: | hypotension |
| Gastrointestinal: | dry mouth, nausea, constipation |
| Metabolic: | can cause severe liver failure. Watch closely for signs and symptoms of liver failure. |

Interactions:

| | |
|-------------------------|--|
| Central Nervous System: | may alter CNS activity; caution in using with any benzodiazepines. |
|-------------------------|--|

**It is strongly advised that this medication is not mixed with alcohol, illicit drugs, or any medication unless consultation with a physician or pharmacist occurs.

Nursing, Case Management, Counseling and Parental Considerations:

As with all antidepressants, several weeks of treatment may be required to obtain the full effect of the drug. Once improvement is noted, it is important for patients to continue drug treatment as indicated by their physician.

Warn patient to immediately report jaundice, anorexia, GI complaints and malaise to prescriber.

Prescriptions should be written for the smallest quantity of tablets consistent with good patient management to reduce the risk of overdose.

SERZONE (CONTINUED)

Nursing, Case Management, Counseling and Parental Considerations (Continued):

Do not use within 14 days of a MAO inhibitor.

Children may be encouraged to learn purpose, dose and main side effect, as appropriate for age and condition.

A responsible adult should supervise use in children.

Children believed to be overdosed should receive immediate medical treatment.

SINEQUAN

Generic: doxepin hydrochloride

Classification: Antidepressant

How Supplied: Capsules: 10 mg, 25 mg, 50 mg, 75 mg, 100 mg, 150 mg
Oral Concentrate: 10 mg/ml

Mechanism of Action:

Unknown. Increases the amount of norepinephrine, serotonin, and or both in the CNS by blocking their reuptake by the presynaptic neurons.

Indications and Dosage:

Depression: Initially 25 to 75 mg P.O. daily in divided doses to maximum of 300 mg daily. Entire maintenance dose may be given once daily with maximum dose of 125 mg.

Adverse Reactions:

Central Nervous System: drowsiness, dizziness, confusion, numbness, headache, extra pyramidal reactions, seizures

Cardiovascular: tachycardia, ECG changes

Eyes, Ears, Nose, & Throat: blurred vision, tinnitus

Gastrointestinal: dry mouth, constipation, nausea, vomiting, anorexia

Genitourinary: urine retention

Metabolic: hypoglycemia, hyperglycemia

Skin: rash, photosensitivity reactions

Interactions:

Drug-drug: Barbiturates, CNS depressants: Causes enhanced CNS depression. SSRIs may increase doxepin levels.

Drug-Herb: Evening primrose oil-may increase the risk of seizure. St. John's Wort, Sam-E, yohimbe may cause serotonin syndrome. Discourage use together.

Drug-lifestyle: Alcohol increases CNS depression. Advise patient of increased risk of photosensitivity.

SINEQUAN (CONTINUED)

Nursing, Case Management, Counseling and Parental Considerations:

Don't withdraw from drug abruptly. Monitor patient for nausea, headache and malaise after withdrawal from long term therapy. Record mood changes, monitor patient for suicidal tendencies and allow only a minimum of drug. Can be very sedating, drowsiness and dizziness subside after a few weeks. Advise patient to avoid alcohol during therapy. Tell patient the full anti-depressant effect may not be evident for 2-3 weeks. Warn about increased photosensitivity.

TOFRANIL AND TOFRANIL-PM

Generic: imipramine hydrochloride

Classification: Tricyclic Antidepressant

How Supplied: Tablet, as hydrochloride: 10 mg, 25 mg, 50 mg
Capsule, as imipramine pamoate: 75 mg, 100 mg, 125 mg, 150 mg

Mechanism of Action:

Increases the synaptic concentration of serotonin and/or norepinephrine in the central nervous system by inhibition of their reuptake by the presynaptic neuronal membrane.

Indications and Dosage:

Treatments of various forms of depression, often in conjunction with psychotherapy; enuresis (involuntary discharge of urine, "bedwetting"), ADHD. 1.5 mg/kg/day. Increase of 1 mg/kg every 3-4 days, maximum 5 mg/kg day. In adolescents: Initially 30-40 mg daily; it usually isn't necessary to exceed 100 mg daily. In childhood enuresis: children 5 and older: 25 mg 1 hour before bedtime. If no response within 1 week, increase dose to 50 mg if child is younger than 12; increase dose to 75 mg for children 12 and over.

Maximum dose should be 2.5 mg/kg daily.

Adverse Reactions:

| | |
|-------------------------|---|
| Central Nervous System: | drowsiness, confusion, dizziness, anxiety, nervousness, dry mouth, constipation |
| Cardiovascular: | irregular heart action, low blood pressure |
| Skin: | rash, sensitive to sunlight |
| Blood: | toxic blood |
| Liver: | hepatitis |
| Visual: | blurred vision |
| Urinary: | urinary retention |

Interactions:

May decrease or reverse effects of Clonidine. May increase effects of central nervous system depressants with MAO inhibitors-high fever, rapid heartbeat, high blood pressure, seizures and death may occur. Use with great caution if combined with SSRI, need to monitor blood levels and do an EKG.

*It is strongly advised that this medication is not mixed with alcohol, illicit drugs or any medication unless consultation with a physician or a pharmacist occurs.

TOFRANIL AND TOFRANIL-PM (CONTINUED)

Nursing, Case Management, Counseling and Parental Considerations:

Tofranil is also used on a short-term basis, along with behavioral therapies, to treat bedwetting in children ages 6 and older. Some doctors use Tofranil to treat bulimia, attention deficit disorder, obsessive-compulsive disorder and panic disorders.

Symptoms of overdose may include:

- agitation, bluish skin, coma, convulsions
- difficulty breathing, dilated pupils
- drowsiness, sweating, vomiting

Do not use within 14 days of an MAO inhibitor.

Children may be encouraged to learn purpose, dose and main side effect, as appropriate for age and condition.

A responsible adult should supervise use in children.

Children believed to be overdosed should receive immediate medical treatment.

WELLBUTRIN & WELLBUTRIN SR & WELLBUTRIN XL

Brand Name: Wellbutrin

Generic: bupropion hydrochloride

Classification: An antidepressant of the aminoketone class.

How Supplied: Tablets: 75 mg, 100 mg
100 mg, 150 mg, 200 mg sustained release only
150 mg, 300 mg extended release

Mechanism of Action:

Unknown. Bupropion is not a tricyclic antidepressant, does not inhibit MAO, and is a weak inhibitor of norepinephrine, dopamine and serotonin reuptake.

Indications and Dosage:

100 mg bid, increased after 3 days to 100 mg tid if needed. No single dose should exceed 150 mg tid. The usual starting dose for the sustained release is 150 mg in the AM; after 4 days increased another 150 mg. Maximum dose is 450 mg. For extended release, initially, 150 mg each morning, increase to target dose of 300 mg. Maximum 450 mg daily.

Adverse Reactions:

| | |
|-------------------------|--|
| Central Nervous System: | headaches, seizures, anxiety, confusion, sedation, insomnia, tremor, agitation, dizziness, risk of seizure is dose related |
| Cardiovascular: | edema, arrhythmias, tachycardia |
| Gastrointestinal: | dry mouth, constipation, nausea, vomiting, anorexia |
| Sexual: | decreased libido |

Interactions:

Monitor patients with history of bipolar disorder closely; antidepressants can cause manic episodes during the depressed phase of bipolar disorder. Contraindicated for patients with a seizure disorder. The safety and effectiveness in patients under the age of 18 has not been established.

**It is strongly advised that this medication is not mixed with alcohol, illicit drugs, or any medication unless consultation with a physician or pharmacist occurs.

Nursing, Case Management, Counseling and Parental Considerations:

Symptoms of Wellbutrin overdose may include:

- hallucinations
- heart failure
- loss of consciousness
- rapid heartbeat
- seizures

The drug is contraindicated for those with:

- a seizure disorder
- anorexia or bulimia
- or using Zyban

Children may be encouraged to learn the purpose, dose and main side effect, as appropriate for age and condition.

A responsible adult should supervise use in children.

Children believed to be overdosed should receive immediate medical treatment.

ZOLOFT

Generic: sertraline hydrochloride

Classification: Antidepressant
Selective Serotonin Reuptake Inhibitor

How Supplied: Tablets: 25 mg, 50 mg, 100 mg
Oral concentration: 20 mg/ml

Mechanism of Action:

An antidepressant that is chemically unrelated to tricyclic or tetracyclic agents. Probably acts by blocking the reuptake of serotonin into presynaptic neurons in the central nervous system.

Indications and Dosage:

Depression, Obsessive-Compulsive Disorder. Adult dosage clinical trials involved dosage of 50-200 mg daily. Children ages 6-17: initially 25 mg daily in children ages 6-12, or 50 mg daily in children 13-17. May increase dosage prn up to 200 mg daily at intervals no less than 1 week.

Adverse Reactions:

| | |
|-------------------------|---|
| Central Nervous System: | headache, tremor, dizziness, insomnia, sleepiness, abnormal coordination, mania |
| Cardiovascular: | chest pain, postural low blood pressure, high blood pressure, rapid heart rate |
| Gastrointestinal: | dry mouth, nausea, diarrhea |
| Skin: | rash, ache, itching, bruising, increased sweating |

Interactions:

Decreased tolerance of Diazepam (Valium). Used with MAO's may cause serious mental changes.

*It is strongly advised that this medication is not mixed with alcohol, illicit drugs or any medication unless consultation with a physician or a pharmacist occurs.

ZOLOFT (CONTINUED)

Nursing, Case Management, Counseling and Parental Considerations:

Contraindicated within 14 days of a MAO inhibitor.

Use with caution in patients with:

- Seizure Disorder
- Liver Problems
- History of drug abuse
- Suicidal thoughts

Administer one time daily with or without food; in the AM or PM.

A responsible adult should supervise use in children.

Children believed to be overdosed should receive immediate medical treatment.

Children may be encouraged to learn the purpose, dose and main side effects, as appropriate for age and condition.

COGENTIN

- Generic:** benztropine mesylate
- Classification:** Anticholinergic Agent, Antiparkinson Agent
- How Supplied:** Tablets: 0.5 mg, 1 mg, 2 mg
Injection: 1 mg/ml in 2-ml ampules

Mechanism of Action:

Thought to partially block striatal cholinergic receptors to help balance cholinergic and dopaminergic activity.

Indications and Dosage:

Adjunctive treatment of drug induced effects and acute impairment of the muscle tone. Children > 3 years 0.02-0.05 mg/kg dose 1-2 times a day.

Adverse Reactions:

- Central Nervous System: drowsiness, nervousness, hallucinations, coma
- Cardiovascular: rapid heart rate
- Gastrointestinal: dry mouth, nausea, vomiting
- Eyes: blurred vision, abnormal pupil dilation

Interactions:

Symmetrel, phenothiazines, tricyclic antidepressants cause anticholinergic adverse reactions, such as confusion and hallucinations. Physician should reduce dosage before administering Symmetrel.

*It is strongly advised that this medication is not mixed with alcohol, illicit drugs or any medication unless consultation with a physician or a pharmacist occurs.

COGENTIN (CONTINUED)

Nursing, Case Management, Counseling and Parental Considerations:

Cogentin has cumulative action, continued supervision is advisable.

Symptoms of overdose include:

- central nervous system depression
- confusion, nervousness, listlessness
- dizziness, muscle weakness

Cogentin has occasionally caused bowel blockage or heat stroke. If Cogentin is taken along with an antipsychotic or tricyclic antidepressant, inform the physician immediately about any stomach or bowel complaints fever or heat intolerance.

Children may be encouraged to learn the purpose, dose and main side effect, as appropriate for age and condition.

A responsible adult should supervise use in children.

Children believed to be overdosed should receive immediate medical treatment.

ABILIFY

Generic: aripiprazole

Classification: Antipsychotic

How Supplied: Tablets: 5 mg, 10 mg, 15 mg, 20 mg, 30 mg

Mechanism of Action:

Dopamine and serotonin agonist and serotonin antagonist

Indications and Dosage:

Short-term treatment of schizophrenia--Adults: Initially, 10 to 15 mg P.O. daily, increasing to a maximum daily dose of 30 mg if needed after at least 2 weeks.

Acute Bipolar Mania—Initially 30 mg daily, may reduce to 15 mg daily.

Adverse Reactions:

| | |
|----------------------------|---|
| Central Nervous System: | headache, anxiety, insomnia, lightheadedness, somnolence, akathisia, tremor, asthenia, depression, nervousness, hostility, suicidal thoughts, manic behavior, confusion, abnormal gait, cogwheel rigidity, seizures, fever, tardive dyskinesia. |
| Cardiovascular: | peripheral edema, chest pain, hypertension, tachycardia, orthostatic hypotension, bradycardia. |
| Gastrointestinal: | nausea, vomiting, constipation, anorexia, esophageal dysmotility. |
| Eyes, Ears, Nose & Throat: | rhinitis, blurred vision, increased salivation, conjunctivitis, ear pain. |
| Genitourinary: | urinary incontinence. |
| Hematologic: | ecchymosis, anemia. |
| Metabolic: | weight gain, weight loss. |
| Musculoskeletal: | neck pain, neck stiffness, muscle cramps. |
| Respiratory: | dyspnea, pneumonia, cough. |
| Skin: | rash, dry skin, pruritus, sweating, ulcer. |
| Other: | flu syndrome, neuroleptic malignant syndrome, increased suicide risk. |

ABILIFY (CONTINUED)

Interactions:

Drug-food. Grapefruit juice: May increase aripiprazole level. Advise patient to limit or avoid grapefruit juice during treatment.

Drug-lifestyle. Alcohol use: May increase CNS effects. Discourage use together.

Nursing, Case Management, Counseling and Parental Considerations:

Contraindicated in patients with hypersensitivity to aripiprazole.

Use cautiously in patients with CV disease, cerebrovascular disease, or conditions that could predispose the patient to hypotension, such as dehydration or hypovolemia. Also use cautiously in patients with history of seizures or with conditions that lower the seizure threshold. Use caution in patients who engage in strenuous exercise, are exposed to extreme heat, take anticholinergic medications, or are susceptible to dehydration.

CLOZARIL

Generic: clozapine

Classification: Antipsychotic

How Supplied: Tablets: 25 mg, 100 mg
Tablets: (oral Disintegrating) 25 mg, 100 mg

Mechanism of Action:

Unknown. Binds selectively to dopaminergic receptors (D1 and D2) in the limbic system of the Central Nervous System and may interfere with adrenergic, cholinergic, histaminergic and serotonergic receptors.

Indications and Dosage:

Schizophrenia in severely ill patients unresponsive to other therapies. Initially, 12.5 mg once daily or bid adjusted upwards by 25 to 50 mg daily to 300 to 450 mg daily by end of 2 weeks.

Adverse Reactions:

| | |
|-----------------------------|--|
| Central Nervous System: | drowsiness, sedation, seizures, dizziness, vertigo, headaches, tremor, disturbed sleep, nightmares, fatigue, insomnia, weakness, anxiety |
| Cardiovascular: | tachycardia, hypotension, hypertension, chest pain |
| Eyes, Ears, Nose, & Throat: | Visual disturbances |
| Gastrointestinal: | Dry mouth, constipation, nausea, vomiting, excessive salivation, heartburn and diarrhea |
| Genitourinary: | urinary frequency, urine retention, incontinence, abnormal ejaculation |
| Hematologic: | agranulocytosis |

Interactions:

Drug-drug: May potentiate the effects of many other drugs; hypertensive, psychoactive drugs. Use cautiously.

Drug-herb: Nutmeg and St. John's Wort: may reduce the effectiveness of the drug.

Drug-food: Caffeine: may inhibit the antipsychotic effect of the drug.

Drug-lifestyle: Alcohol use: Increased CNS depression. Smoking: may decrease clozapine levels.

CLOZARIL (CONTINUED)

Nursing, Case Management, Counseling and Parental Considerations:

Tell patients about the need for weekly blood tests for agranulocytosis. Advise them to report flu-like symptoms, fever, sore throat, lethargy, malaise and other signs of infection.

Advise patient that smoking may decrease drug effectiveness.

GEODON

Generic: ziprasidone

Classification: Antipsychotic

How Supplied: Capsules: 20 mg, 40 mg, 60 mg, 80 mg
IM Injections: 20 mg/ml

Mechanism of Action:

May inhibit dopamine and serotonin-2 receptors, leading to a decrease in symptoms associated with schizophrenia.

Indications and Dosage:

Symptomatic treatment of schizophrenia: Adults: Initially 20 mg bid with food. Dosages are highly individualized. Dosage adjustments should occur no more frequently than every 2 days, but to allow for lowest possible doses, the interval should be several weeks to assess symptom response. Effective dosage range is 20 to 80 mg bid. Maximum recommended dose is 100 mg bid.

Acute Bipolar Mania--with or without psychotic features: 40 ml bid, increase 40 to 80 bid

Adverse Reactions:

Central Nervous System: somnolence, akathisia, dizziness, extra pyramidal reactions, dystonia, hypertonia, asthenia

Cardiovascular: tachycardia, orthostatic hypotension

Eyes, Ears, Nose, & Throat: rhinitis, abnormal vision

Gastrointestinal: nausea, constipation, dyspepsia, diarrhea, dry mouth, anorexia

Musculoskeletal: myalgia

Respiratory: cough

Skin: rash

Interactions:

Drug-drug: Carbamazepine: May decrease levels of ziprasidone. May need to increase dose of Geodon to achieve desired effect. Drugs that increase dopamine may have antagonistic effect on Geodon.

Nursing, Case Management, Counseling and Parental Considerations:

Patient taking antipsychotic drugs is at a greater risk for developing neuroleptic malignant syndrome or tardive dyskinesia. Muscle rigidity, altered mental status, and autonomic instability are signs of neuroleptic malignant syndrome, which can be fatal. Always give drug with food for optimal effect.

HALDOL

Generic: haloperidol

Classification: Antipsychotic

How Supplied: Tablet: 0.5 mg, 1 mg, 2 mg, 5 mg, 10 mg, 20 mg
Concentrate, oral, as lactate: 2 mg/ml
Injection as decanoate: 50 mg/ml (1 ml, 5 ml),
100 mg/ml (1 ml/5 ml)
Injection as lactate: 5 mg/ml (1 ml, 2 ml, 2.5 ml, 10 ml),
Oral concentrate 2 mg/ml

Mechanism of Action:

Competitive blockade of post synaptic dopamine receptors in the dopaminergic system depresses cerebral cortex and hypothalamus; exhibits a strong alpha-adrenergic sympathetic and anticholinergic para-sympathetic blocking activity.

Indications and Dosage:

Treatment of psychosis, Tourette's Disorder and severe behavior in children: Children 3-12 years (15-40 kg) oral; initial 0.05 mg/kg/day or 0.25-0.5 mg/day given in 2-3 divided doses. Increase by 0.25-0.5 mg every 5-7 days. Maximum 0.15 mg/kg/day usual maintenance. Agitation or hyperactivity: 0.01-0.03 mg/kg/day once daily. Tourette's Syndrome: 0.05-0.075 mg/kg/day in divided doses daily. Psychotic disorders: 0.05-0.15 mg/kg/day in 2-3 divided doses. 6-12 years I.M. (as lactate) 1-3 mg/dose every 4-8 hours to a maximum of 0.15 mg/kg/day; change over to oral therapy as soon as possible. Non-psychotic behavior disorders-children ages 3-12: 0.05 mg daily. Maximum 6 mg daily.

Adverse Reactions:

| | |
|-------------------------|--|
| Central Nervous System: | neuroleptic malignant syndrome (fever, sore throat, weakness, infection), drowsiness, jerking, stumbling, tardive dyskinesia (involuntary movement disorder) |
| Cardiovascular: | tachycardia, low blood pressure |
| Skin: | rash |
| Gastrointestinal: | dry mouth, constipation |
| Blood: | anemia |
| Eyes: | blurred vision |
| Genitourinary: | urinary retention |

HALDOL (CONTINUED)

Interactions:

Central nervous system depressants may increase adverse side effects; epinephrine may cause low blood pressure. Phenobarbital may increase metabolism and decrease effect.

*It is strongly advised that this medication is not mixed with alcohol, illicit drugs or any medication unless consultation with a physician or a pharmacist occurs.

Nursing, Case Management, Counseling and Parental Considerations:

Severely disturbed psychotic children may require higher doses.

In severely disturbed non-psychotic children or in hyperactive children with accompanying conduct disorders who have not responded to psychotherapy or medications other than anti-psychotics, it should be noted that since these behaviors may be short lived, short term administration of Haldol may suffice. There is no evidence establishing a maximum effective dose. There is little evidence that behavior improvement is further enhanced in dosages beyond 6 mg per day.

Caution should be used when administered with Lithium.

Haldol causes dry mouth; hard candy may help alleviate this problem.

Symptoms of overdose may include:

- catatonic (unresponsive)state, coma, sedation
- decreased breathing
- low blood pressure
- rigid muscles, tremor, weakness

Children may be encouraged to learn the purpose, dose and main side effect, as appropriate for age and condition.

A responsible adult should supervise use in children.

Children believed to be overdosed should receive immediate medical treatment.

MELLARIL

Generic: thioridazine hydrochloride

Classification: Antipsychotic

How Supplied: Oral Concentrate: 30 mg/ml, 100 mg/ml
Oral Suspension: 25 mg/5ml, 100 mg/5ml
Tablets: 10 mg, 15 mg, 25 mg, 50 mg, 100 mg, 150 mg, 200 mg

Mechanism of Action:

Unknown. A piperidine phenothiazine that probably blocks postsynaptic dopamine receptors in the brain.

Indications and Dosage:

Schizophrenic patients who don't show an acceptable response to treatment with other antipsychotic drugs.

Children: Initially, 0.5 mg daily in divided doses. Increase gradually to optimum therapeutic effect; maximum dose is 3 mg daily.

Adults: Initially, 50 to 100 mg tid, increased gradually to 800 mg daily in divided doses, if needed. Dosage varies.

Adverse Reactions:

Central Nervous System: tardive dyskinesia, sedation, EEG changes, dizziness, neuroleptic malignant syndrome.

Cardiovascular: tachycardia, ECG changes, prolonged QT intervals, orthostatic hypotension

Eyes, Ears, Nose, & Throat: ocular changes, blurred vision, retinitis pigmentosa

Gastrointestinal: dry mouth, constipation, increased appetite

Genitourinary: urine retention, dark urine, menstrual irregularities, inhibited ejaculation

Hematologic: agranulocytosis

Hepatic: cholestatic jaundice

Metabolic: weight gain

Skin: mild photosensitivity reactions, allergic reactions

MELLARIL (CONTINUED)

Interactions:

Drug-drug: Antacids: Inhibited absorption of oral phenothiazine. Separate doses by at least 2 hours. Barbiturates: May decrease phenothiazine effect. Monitor patient.

Lithium: May decrease phenothiazine effect and increase neurologic adverse effects. Increased CNS depression.

Drug-herb: Kava: may cause dystonic reactions. St. John's Wort: may cause photosensitivity reactions. Yohimbe: may cause toxicity. Discourage use together.

Drug-lifestyle: Alcohol use: Increased central nervous system depression. Discourage use together. Sun exposure: Increased risk of photosensitivity reactions.

Nursing, Case Management, Counseling and Parental Considerations:

Monitor patient for tardive dyskinesia, which may occur after prolonged use. May increase liver enzyme levels and decrease white blood cell counts. When beginning treatment, obtain a baseline ECG and potassium level. Patients with a high QT interval should not receive Mellaril; if higher than 500 msec, should discontinue use. Instruct patient to report dizziness, palpitations, and vertigo to their prescriber.

ORAP

Generic: pimozone

Classification: Antipsychotic

How Supplied: Tablets: 2 mg, 4 mg, 10 mg

Mechanism of Action:

Unknown. May block dopamine nonselectively at both presynaptic and postsynaptic receptors on neurons in the CNS.

Indications and Dosage:

Manage Chronic Schizophrenia

Suppression of motor and phonic tics in patients with Tourette's Syndrome.

Initially, 1-2 mg in divided doses, then increase every other day prn. Maintenance dose is 6 mg; usual range is 2-12 mg / day, NOT recommended over 20 mg.

Adverse Reactions:

Central Nervous System: parkinsonian-like symptoms, drowsiness, headaches, insomnia, extrapyramidal symptoms, tardive dyskinesia, neuroleptic malignant syndrome

Cardiovascular: tachycardia, hypertension, hypotension, prolonged QT interval

Eyes, Ears, Nose, & Throat: visual disturbances

Gastrointestinal: dry mouth, constipation, excessive salivation

Genitourinary: impotence, urinary frequency.

Musculoskeletal: muscle rigidity

Skin: rash

Interactions:

Drug-drug: May cause ECG abnormalities. CNS depressants: causes increased

CNS depression: use together cautiously.

Drug-food: Grapefruit juice; inhibited metabolism of pimozone. Advise patient to avoid taking drug with grapefruit juice.

Drug-lifestyle- Alcohol use: Increases CNS depression. Discourage use together.

ORAP (CONTINUED)

Nursing, Case Management, Counseling and Parental Considerations:

Obtain an ECG before treatment begins and periodically thereafter. Watch for evidence of neuroleptic malignant syndrome. Warn patient not to stop taking this drug abruptly and not to exceed prescribed dosage. Also to avoid alcohol and grapefruit juice while taking drug. Advise patients to use sugarless hard candy, gum and liquids to relieve dry mouth.

RISPERDAL

Generic: risperidone

Classification: Antipsychotic

How Supplied: Tablets: 0.25 mg, 0.5 mg, 1 mg, 2 mg, 3 mg, 4 mg
Orally Rapid Disintegrating Tablets: 0.5 mg, 1 mg, 2 mg
Oral Solution: 1 mg/ml
Injection: 25 mg, 37.5 mg, 50 mg

Mechanism of Action:

Blocks dopamine and serotonin receptors; also blocks alpha (1 &2) and histamine receptors in the CNS.

Indications and Dosage:

Psychosis. Initially, 1 mg bid. Increased in increments of 1 mg bid on days 2 and 3 of treatment to a target dose of 3 mg bid. Maintenance doses are generally 4-8 mg daily and can be given once daily or divided into 2 doses. Maximum, 8 mg daily.

Accute Manic Episodes: Monotherapy or combination therapy with lithium for 3 week.

Bipolar I: 2-3 mg once daily. Adjust dose one mg daily. Dosage range is 1-6 mg daily.

Adverse Reactions:

| | |
|-------------------------|--|
| Central Nervous System: | somnolence, extrapyramidal symptoms, headaches, insomnia, agitation, anxiety, tardive dyskinesia, aggressiveness |
| Cardiovascular: | tachycardia, chest pain |
| Gastrointestinal: | constipation, nausea, vomiting |
| Skin: | photosensitivity |
| Other: | neuroleptic malignant syndrome |

Interactions:

Alcohol, CNS depressants: additive CNS depression. Avoid concomitant use. Advise patients to use caution in hot weather to avoid heatstroke, wear sun block and protective clothing outdoors.

**It is strongly advised that this medication is not mixed with alcohol, illicit drugs, or any medication unless consultation with a physician or pharmacist occurs.

RISPERDAL (CONTINUED)

Nursing, Case Management, Counseling and Parental Considerations:

Responding patients should be maintained on the lowest dose needed to maintain remission. Patients should periodically be reassessed to determine the need for maintenance treatment.

Symptoms of overdose include:

- drowsiness, sedation
- low blood pressure
- rapid heartbeat

Children may learn the purpose, dose and main side effect, as appropriate for age and condition.

A responsible adult should supervise use in children.

Children believed to be overdosed should receive immediate medical attention.

Seroquel

Generic: quetiapine fumarate

Classification: Antipsychotic drug belonging to a new chemical class, the dibenzothiazepine derivatives.

How Supplied: Tablets: 25 mg, 100 mg, 200 mg, 300 mg

Mechanism of Action:

Unknown. Seroquel is an antagonist at multiple neurotransmitter receptors. The antipsychotic activity is with serotonin and dopamine.

Indications and Dosage:

For the management of the manifestations of psychotic disorders. Initial dose is 25 mg bid, with increases in increments of 25-50 mg bid or tid on the 2nd or 3rd day, to a target range of 300-400 daily, given bid or tid.

Mono Therapy or Adjunct Therapy with Lithium for the short term treatment of acute manic episodes associated with Bipolar I disorder – 50 mg bid up to 200 mg bid. Usually dose is 400-800 mg daily.

Adverse Reactions:

| | |
|-------------------------|---|
| Central Nervous System: | neuroleptic malignant syndrome, tardive dyskinesia, seizures, dizziness, somnolence |
| Cardiovascular: | tachycardia, orthostatic hypotension, palpitation |
| Gastrointestinal: | constipation, dry mouth, dyspepsia, anorexia |
| Metabolic: | weight gain, peripheral edema |
| Respiratory: | rhinitis, increased cough |

Interactions:

Alcohol

Avoid overheating and dehydration

**It is strongly advised that this medication is not mixed with alcohol, illicit drugs, or any medication unless consultation with a physician or pharmacist occurs.

SEROQUEL (CONTINUED)

Nursing, Case Management, Counseling and Parental Considerations:

Patient should be maintained on the lowest possible dose needed to maintain remission; patient should be periodically reassessed to determine the need for maintenance treatment.

Symptoms of overdose include:

- drowsiness, sedation
- tachycardia
- hypotension

Children may be encouraged to learn the purpose, dose and main side effect, as appropriate for age and condition.

A responsible adult should supervise use in children.

Children believed to be overdosed should receive immediate medical treatment.

THORAZINE

Generic: chlorpromazine hydrochloride

Classification: Antipsychotic

How Supplied: Capsules (extended release): 200mg, 300mg
Injection: 25mg/ml
Oral concentrate: 30mg/ml, 100mg/ml
Suppositories: 25mg, 100mg Syrup: 10mg/5ml
Tablets: 10mg, 25mg, 50mg, 100mg, 200mg

Mechanism of Action:

Unknown. A piperidine phenothiazine that probably blocks postsynaptic dopamine receptors in the brain.

Indications and Dosage:

Psychosis, mania: For outpatients, 30 to 75 ml daily in 2 to 4 divided doses. Increase dosage by 20 to 50mg twice weekly until symptoms are controlled. Maximum IM rate for in children ages 5-12 is 75mg.

Adverse Reactions:

- Central Nervous System: extrapyramidal reactions, drowsiness, sedation, seizures, tardive dyskinesia, dizziness, neuroleptic malignant syndrome
- Cardiovascular: orthostatic hypertension, tachycardia
- Eyes, Ears, Nose, & Throat: ocular changes, blurred vision, nasal congestion
- Gastrointestinal: dry mouth, constipation, nausea
- Genitourinary: urine retention, menstrual irregularities, inhibited ejaculation
- Hematologic: agranulocytosis, aplastic anemia
- Hepatic: jaundice
- Skin: mild photosensitivity reactions, allergic reactions, skin pigmentation changes
- Other: lactation

THORAZINE (CONTINUED)

Interactions:

Drug-drug: Antacids may inhibit absorption of Thorazine, separate doses by 2 hours. Do not mix with alcohol, may cause increased CNS depression, particularly psychomotor skills.

Avoid excessive sunlight exposure.

May decrease hemoglobin and hematocrit levels.

Nursing, Case Management, Counseling and Parental Considerations:

Advise patients to report any signs of urine retention or constipation.

Thorazine may cause tardive dyskinesia--a condition marked by involuntary muscle spasms and twitches in the face and body.

Thorazine may cause tardive dyskinesia--a condition marked by involuntary muscle spasms and twitches in the face and body.

If taking Thorazine in a liquid concentrate form, you will need to dilute it with a liquid such as a carbonated beverage, coffee, fruit juice, milk, tea, tomato juice, or water. Puddings, soups, and other semisolid foods may also be used. Thorazine will taste best if it is diluted immediately prior to use. You should not take Thorazine with alcohol.

Do not take antacids such as Gelusil at the same time as Thorazine. Leave at least 1 to 2 hours between doses of the two drugs.

--If you miss a dose...

If you take Thorazine once a day, take the dose you missed as soon as you remember. If you do not remember until the next day, skip the dose, then go back to your regular schedule.

Abnormal secretion of milk, abnormalities in movement and posture, agitation, anemia, asthma, blood disorders, breast development in males, chewing movements, constipation, difficulty breathing, difficulty swallowing, dizziness, drooling, drowsiness, dry mouth, ejaculation problems, eye problems causing fixed gaze, fainting, fever, flu-like symptoms, fluid accumulation and swelling, headache, heart attack, high or low blood sugar, hives, impotence, inability to urinate, inability to move or talk, increase of appetite, infections, insomnia, intestinal blockage, involuntary movements of arms and legs, tongue, face, mouth, or jaw, irregular blood pressure, pulse, and heartbeat, irregular or no menstrual periods, jitteriness, light-headedness (on standing up), lockjaw, mask-like face, muscle stiffness and rigidity, narrow or dilated pupils, nasal congestion, nausea, pain and stiffness in the neck, persistent, painful erections, pill-rolling motion, protruding tongue, puckering of the mouth, puffing of the cheeks, rapid heartbeat, red or purple spots on the skin, rigid arms, feet, head, and muscles (including the back), seizures, sensitivity to light, severe allergic reactions, shuffling walk, skin inflammation and peeling, sore throat, spasms in jaw, face, tongue, neck, mouth, and feet, sweating, swelling of breasts in women, swelling of the throat, tremors, twitching in the body, neck, shoulders and face, twisted neck, visual problems, weight gain, yellowed skin and whites of eyes

THORAZINE (CONTINUED)

You should not be using Thorazine if you are taking substances that slow down mental function such as alcohol, barbiturates, or narcotics.

You should not take Thorazine if you have ever had an allergic reaction to any major tranquilizer containing phenothiazine.

Special warnings about this medication

You should use Thorazine cautiously if you have ever had: asthma; a brain tumor; breast cancer; intestinal blockage; emphysema; the eye condition known as glaucoma; heart, kidney, or liver disease; respiratory infections; seizures; or an abnormal bone marrow or blood condition; or if you are exposed to pesticides or extreme heat. Be aware that Thorazine can mask symptoms of brain tumor, intestinal blockage, and the neurological condition called Reye's syndrome. Stomach inflammation, dizziness, nausea, vomiting, and tremors may result if you suddenly stop taking Thorazine. Follow your doctor's instructions closely when discontinuing Thorazine.

Thorazine can suppress the cough reflex; you may have trouble vomiting. This drug may impair your ability to drive a car or operate potentially dangerous machinery. Do not participate in any activities that require full alertness if you are unsure about your ability.

This drug can increase your sensitivity to light. Avoid being out in the sun too long.

Thorazine can cause a group of symptoms called Neuroleptic Malignant Syndrome, which can be fatal. Some symptoms are extremely high body temperature, rigid muscles, mental changes, irregular pulse or blood pressure, rapid heartbeat, sweating, and changes in heart rhythm.

If you are on Thorazine for prolonged therapy, you should see your doctor for regular evaluations, since side effects can get worse over time.

TRILAFON

Generic: perphenazine

Classification: Antipsychotic

How Supplied: Injectable: 5 mg/ml
Oral concentrate: 16ml/5ml
Syrup: 2mg/5ml
Tablets: 2mg, 4mg, 8mg, 16mg

Mechanism of Action:

Unknown. Probably exerts antipsychotic effects by blocking postsynaptic dopamine receptors in the brain.

Indications and Dosage:

Psychosis: Adults and children older than age 12: Initially, 4 to 8mg PO tid, reduce as soon as possible to minimum effective dose.

Adverse Reactions:

| | |
|-----------------------------|---|
| Central Nervous System: | extrapyramidal reactions, tardive dyskinesia, sedation, dizziness, seizures, drowsiness, neuroleptic malignant syndrome |
| Cardiovascular: | tachycardia, ECG changes |
| Eyes, Ears, Nose, & Throat: | ocular changes, blurred vision, nasal congestion |
| Gastrointestinal: | dry mouth, constipation, nausea, vomiting, diarrhea |
| Genitourinary: | urine retention, dark urine, menstrual irregularities, inhibited ejaculation |
| Hematologic: | agranulocytosis |
| Hepatic: | jaundice |
| Metabolic: | weight gain |
| Skin: | photosensitive reactions, allergic reactions |

TRILAFON (CONTINUED)

Interactions:

Drug to drug: Antacids may inhibit absorption of Trilafon. Barbiturates may decrease Trilafon effect. CNS depressants may increase CNS depression. Antidepressants may increase Trilafon levels. Lithium may increase neurologic adverse effects.

Drug-Lifestyle: Alcohol use is strongly discouraged. Avoid excessive sunlight exposure.

Nursing, Case Management, Counseling and Parental Considerations:

Monitor therapy with weekly bilirubin tests during first month, periodic blood tests (CBC and liver function tests) and ophthalmic tests.

Watch for evidence of neuroleptic malignant syndrome, often fatal.

ZYPREXA

Generic: olanzapine

Classification: Antipsychotic

How Supplied: Tablets: 2.5 mg, 5 mg, 7.5 mg, 10 mg, 15 mg, 20 mg
Tablets (orally disintegrating): 5 mg, 10 mg, 15 mg, 20 mg

Mechanism of Action:

Unknown. Binds to dopamine and serotonin receptors; may interfere with adrenergic, cholinergic and histaminergic receptors.

Indications and Dosage:

Psychotic disorders: Initially 5 to 10 mg once daily. Most patients respond to dosages of 10 mg daily. Do not exceed 20 mg daily.

Short-term treatment of acute manic episodes from bipolar I disorder: Adults: initially 10 mg -15 mg daily. Adjust dose prn in increments of 5 mg every 24 hours. Maximum 20 mg daily. Duration of treatment is 3-4 weeks.

Long-term treatment of bipolar I: 5-20 mg daily.

Adjunct to Lithium to treat bipolar mania: 10 mg daily. Usual range 5-20 mg daily.

Adverse Reactions:

| | |
|-------------------------|---|
| Central Nervous System: | somnolence, agitation, insomnia, headache, nervousness, hostility, personality disorder |
| Cardiovascular: | tachycardia, chest pain, hypotension |
| Gastrointestinal: | constipation, dry mouth, thirst, abdominal pain |
| Sexual: | PMS, urinary incontinence, UTI |
| Musculoskeletal: | joint pain, extremity pain, back pain, neck rigidity, twitching |
| Respiratory: | rhinitis |
| Metabolic: | significant weight gain |

ZYPREXA (CONTINUED)

Interactions:

Alcohol, antihypertensives, and diazepam: may potentiate hypotensive effects; safety and effectiveness in patients under 18 years has not been established. Monitor patient for signs of neuroleptic malignant syndrome and tardive dyskinesia. Warn patient against exposure to extreme heat.

**It is strongly advised that this medication is not mixed with alcohol, illicit drugs, or any medication unless consultation with a physician or pharmacist occurs.

Nursing, Case Management, Counseling and Parental Considerations:

At the start of Zyprexa therapy, the drug can cause extreme low blood pressure, increased heart rate, dizziness, and in rare cases, the tendency to faint when first standing up. To avoid these problems, the physician may start with a low dose of Zyprexa and increase the dosage gradually.

Medicines such as Zyprexa can interfere with the regulation of the body's temperature; do not get overheated or become dehydrated, avoid extreme heat, and drink plenty of fluids.

Symptoms of overdose include:

- drowsiness
- slurred speech

Children may be encouraged to learn purpose, dose and main side effect, as appropriate for age and condition.

A responsible adult should supervise use in children.

Children believed to be overdosed should receive immediate medical treatment.

DEPAKENE

Generic: valproate sodium, valproic acid

Classification: Anticonvulsant

How Supplied: Available forms:

| | |
|-------------------|---|
| valproate sodium: | Syrup: 250 mg/5 ml Injection: 100 mg/ml |
| valproic acid: | Syrup: 200 mg/5 ml Tablets (crushable): 100 mg Tablets (enteric-coated): 200 mg, 500 mg Tablets (extended-release): 500 mg Capsules: 250 mg |

Mechanism of Action:

Unknown. Probably increases brain levels of gamma-aminobutyric acid, which transmits inhibitory nerve impulses in the CNS.

Indications and Dosage:

Simple and complex absence seizures, mixed seizure types (including absence seizures)--Adults and children: initially, 15 mg/kg P.O. or I.V. daily; then increase by 5 to 10 mg/kg daily at weekly intervals up to maximum of 60 mg/kg daily.

Complex partial seizures--Adults and children ages 10 and older: 10 to 15 mg/kg P.O. or I.V. daily; then increase by 5 to 10 mg/kg daily at weekly intervals, up to 60 mg/kg/day.

Adverse Reactions:

| | |
|-----------------------------|--|
| Central Nervous System: | asthenia, sedation, emotional upset, depression, psychosis, aggressiveness, hyperactivity, behavioral deterioration, muscle weakness, tremor, ataxia, headache, dizziness, incoordination. |
| Eyes, Ears, Nose, & Throat: | nystagmus, diplopia. |
| Gastrointestinal: | nausea, vomiting, indigestion, diarrhea, abdominal cramps, constipation, increased appetite, anorexia, pancreatitis. |
| Hematologic: | thrombocytopenia, increased bleeding time, petechiae, bruising, eosinophilia, hemorrhage, leukopenia, bone marrow suppression. |

DEPAKENE (CONTINUED)

Adverse Reactions (CONTINUED):

| | |
|------------|--|
| Hepatic: | elevated liver enzyme levels, toxic hepatitis. |
| Metabolic: | weight gain. |
| Skin: | rash, alopecia, pruritus, photosensitivity, erythema multiforme. |

Interactions:

Drug-drug. Aspirin, chlorpromazine, cimetidine, erythromycin, felbamate: may cause valproic acid toxicity. Use together cautiously and monitor blood levels. Monitor patient closely.

Benzodiazepines, other CNS depressants: excessive CNS depression. Avoid using together.

Lamotrigine: increased lamotrigine levels, decreased valproate levels. Monitor levels closely.

Phenobarbital: increased phenobarbital levels. Monitor patient closely.

Phenytoin: increased or decreased phenytoin levels, decreased valproate levels. Monitor patient closely.

Rifampin: may decrease valproate levels. Monitor valproate levels.

Warfarin: valproic acid may displace Warfarin from binding sites. Monitor PT and INR.

Drug-lifestyle: Alcohol use: excessive central nervous system depression. Advise patient to avoid alcohol.

DEPAKENE (CONTINUED)

Nursing, Case Management, Counseling and Parental Considerations:

Contraindicated in patients with hypersensitivity to drug and in those with hepatic disease or significant hepatic dysfunction.

Tell patient to take drug with food or milk to reduce adverse GI effects.

Advise patient not to chew or crush capsules or tablets because doing so will decrease the effectiveness of the drug.

Tell patient and parents that syrup form shouldn't be mixed with carbonated beverages; mixture may be irritating to mouth and throat.

Tell patient and parents to keep drug out of children's reach.

Warn patient and parents not to stop drug therapy abruptly.

Advise patient to avoid driving and other potentially hazardous activities that require mental alertness until drug's CNS effects are known.

Encourage patients to wear a medical identification bracelet or necklace.

Monitor liver function test results, platelet counts, and PT and INR before starting drug and periodically thereafter, as ordered.

Don't administer syrup form to patients who have sodium restrictions. Check with doctor.

Adverse reactions may not be caused by valproic acid alone because it's usually used in combination with other anticonvulsants.

Divalproex sodium has less risk of adverse GI reactions.

Never withdraw drug suddenly because sudden withdrawal may worsen seizures. Call doctor at once if adverse reactions develop.

DEPAKOTE, DEPAKOTE ER, & DEPAKOTE SPRINKLES

Generic: divalproex sodium

Classification: Anticonvulsant

How Supplied: Capsules (delayed release): 125 mg
Tablets delayed release (enteric coated): 125 mg, 250 mg, 500 mg
Tablets (extended release): 250 mg, 500 mg

Mechanism of Action:

Unknown. Probably increases brain levels of gamma-aminobutyric acid, which transmits inhibitory nerve impulses in the CNS.

Indications and Dosage:

Adults and Children: Initially 750 mg daily in divided doses.

Mania in Adults and Children: Initially 750 mg daily in divided doses. Adjust dosage based on patient's response. Maximum dose is 60 mg/kg/day daily.

Adverse Reactions:

| | |
|-------------------------|---|
| Central Nervous System: | sedation |
| Gastrointestinal: | nausea, vomiting, indigestion, diarrhea, pancreatitis |
| Hematologic: | increased bleeding time |
| Hepatic: | elevated liver enzymes, toxic hepatitis |
| Skin: | photosensitivity |
| Metabolic: | significant weight gain |

Interactions:

Aspirin

Alcohol

*It is strongly advised that this medication is not mixed with alcohol, illicit drugs, or any medication unless consultation with a physician or pharmacist occurs.

DEPAKOTE, DEPAKOTE ER, & DEPAKOTE SPRINKLES (CONTINUED)

Nursing, Case Management, Counseling and Parental Considerations:

Depakote can cause liver damage, especially in the first 6 months of treatment.

Symptoms of liver damage are:

- weakness, dizziness, feeling of ill health, vomiting
- facial swelling, loss of appetite
- a yellowing of the skin and eyes

Symptoms of overdose may include:

- coma, extreme sleepiness
- heart problems

Children may be encouraged to learn the purpose, dose and main side effect, as appropriate for age and condition.

A responsible adult should supervise use in children.

Children believed to be overdosed should receive immediate medical treatment.

LITHIUM, LITHOBID, ESKALITH, ESKALITH CR AND CIBALITH-S

Generic: lithium carbonate
lithium citrate (Cibalith-S)

Classification: Central Nervous System Drug

How Supplied:

Lithium carbonate: Capsules: 150 mg, 300 mg, 600 mg
Tablets: 250 mg, 300 mg (300 mg equals 8.12 mEq lithium)
Tablets (controlled-release): 300 mg, 450 mg

Lithium citrate: Syrup (sugarless): 8 mEq (lithium)/5 ml

Note: 5 ml of lithium citrate (liquid) contains 8 mEq lithium, equal to 300 mg lithium carbonate

Mechanism of Action:

Unknown. Probably alters chemical transmitters in the central nervous system, possibly by interfering with ionic pump mechanisms in brain cells, and may compete with or replace sodium ions.

Indications and Dosage:

Prevention or control of mania--Adults: 300 to 600 mg P.O. up to qid or 900 mg P.O. every 12 hours of controlled-release tablets; increase based on blood levels to achieve optimal dosage. Recommended therapeutic lithium blood levels are 1.5 mEq/L for acute mania, 0.6 to 1.2 mEq/L for maintenance therapy, and 2 mEq/L as maximum level.

Adverse Reactions:

Central Nervous System: tremors, drowsiness, headache, confusion, restlessness, dizziness, psychomotor retardation, lethargy, coma, blackouts, epileptiform seizures, EEG changes, worsened organic mental syndrome, impaired speech, ataxia, muscle weakness, incoordination.

Cardio Vascular: reversible ECG changes, arrhythmias, hypotension, bradycardia, peripheral vascular collapse (rare).

Eyes, Ears, Nose, & Throat: tinnitus, blurred vision.

Gastrointestinal: dry mouth, metallic taste, nausea, vomiting, anorexia, diarrhea, thirst, abdominal pain, flatulence, indigestion.

LITHIUM, LITHOBID, ESKALITH, ESKALITH CR, AND CIBALITH-S (CONTINUED)

Adverse Reactions (Continued):

| | |
|----------------|---|
| Genitourinary: | polyuria, glycosuria, decreased creatinine clearance, albuminuria; renal toxicity (with long-term use). |
| Hematologic: | leukocytosis with leukocyte count of 14,000 to 18,000/mm ³ (reversible); elevated neutrophil count. |
| Metabolic: | transient hyperglycemia, goiter, hypothyroidism (lowered T ₃ , T ₄ , and protein-bound iodine, but elevated ¹³¹ I uptake), hyponatremia. |
| Skin: | pruritus, rash, diminished or absent sensation, drying and thinning of hair, psoriasis, acne, alopecia. |
| Other: | ankle and wrist edema. |

Interactions:

Drug-drug. Aminophylline, sodium bicarbonate, urine alkalinizers: increased lithium excretion. Tell patient to avoid excessive salt and monitor lithium levels.

Carbamazepine, fluoxetine, methyldopa, NSAIDs, probenecid: increased effect of lithium. Monitor patient for lithium toxicity.

Diuretics: increased reabsorption of lithium by kidneys, with possible toxic effect.

Use with extreme caution and monitor lithium and electrolyte levels (especially sodium).

Neuroleptics: may cause encephalopathy. Watch for signs and symptoms (lethargy, tremor, extrapyramidal symptoms), and stop drug if encephalopathy occurs.

Neuromuscular blockers: may cause prolonged paralysis or weakness. Monitor patient closely.

Thyroid hormones: may induce hypothyroidism. Monitor thyroid function.

Drug-herb. Parsley: may promote or produce serotonin syndrome. Discourage patient from using together.

Plantains: psyllium seed has been known to inhibit GI absorption. Discourage patient from using herb.

Drug-food. Caffeine: decreased lithium levels and effect. Dosage may need to be adjusted.

Nursing, Case Management, Counseling and Parental Considerations:

Alert: Determination of lithium blood level is crucial to safe use of drug. Don't use drug in patients who can't have regular lithium blood level checks. Monitor lithium blood level 8 to 12 hours after first dose, usually before morning dose, the morning before second dose is given, two or three times weekly for the first month, then weekly to monthly during maintenance therapy.

Tell patient to take drug with plenty of water and after meals to minimize GI distress.

Explain that lithium has a narrow therapeutic margin of safety. A blood level that is even slightly high can be dangerous.

Warn patient and caregivers to watch for evidence of toxicity (diarrhea, vomiting, tremor, drowsiness, muscle weakness, ataxia) and to expect transient nausea, polyuria, thirst, and discomfort during first few days of therapy.

Instruct patient to withhold one dose and call doctor if toxic symptoms appear but not to stop drug abruptly.

Warn ambulatory patient to avoid hazardous activities that require alertness and good psychomotor coordination until CNS effects of drug are known.

Tell patient not to switch brands of lithium or take other prescription or OTC drugs without doctor's guidance.

TEGRETOL, TEGRETOL CR, & TEGRETOL XR

Generic: carbamazepine

Classification: Anticonvulsant

How Supplied: Tablets: 200 mg
Tablets (chewable): 100 mg, 200 mg
Tablets (extended-release): 100 mg, 200 mg, 400 mg
Oral Suspension: 100 mg/5ml
Capsules: 100 mg, 200 mg, 300 mg (extended release)

Mechanism of Action:

Unknown. Thought to stabilize neuronal membranes and limit seizure activity by either decreasing efflux or decreasing influx of sodium ions across cell membranes in the motor cortex during generation of nerve impulses.

Indications and Dosage:

Bipolar aggression. Generalized tonic-clonic and complex partial seizures, mixed seizure patterns. Adults and over 12: 200 mg P.O. qid, may be increased by 200 mg. Daily, in divided doses at 6-8 hour intervals. Max is 1 g 12-15 years old, or 1.2 g/day over 15. 6-12 year 100 mg bid, increased at weekly intervals by 100 mg. Daily. Max daily is 1 g/day. Children ages 6-12 initially 100 mg bid or 50 mg of suspension; usual dose is 200-400 mg daily.

Adverse Reactions:

| | |
|-------------------------|--|
| Respiratory: | pulmonary hypersensitivity |
| Central Nervous System: | dizziness, vertigo, drowsiness, worsening of seizures, headache, syncope |
| Cardiovascular: | hypertensive, hypotension, aggravation of coronary artery disease, arrhythmias, AV block. Need to administer frequent CBCs. (blood work) |
| Gastrointestinal: | nausea, vomiting, abdominal pain, diarrhea, anorexia, stomatitis. |

Interactions:

Lithium: increased CNS toxicity. Avoid concomitant use. MAO inhibitors: increased depressant and anticholinergic effects. Don't use together. Hepatic and blood effects can be fatal.

**It is strongly advised that this medication is not mixed with alcohol, illicit drugs, or any medication unless consultation with a physician or pharmacist occurs.

TEGRETOL, TARGETOL CR, & TARGETOL XR (CONTINUED)

Nursing, Case Management, Counseling and Parental Considerations:

Tegretol can be used to treat depression and abnormally aggressive behavior.

Most prominent signs of a Tegretol overdose include:

- coma, convulsions, dizziness
- inability to urinate
- involuntary rapid eye movements, muscular twitching, tremors

Do not use within 14 days of an MAO inhibitor.

Children may be encouraged to learn the purpose, dose and main side effect, as appropriate for age and condition.

A responsible adult should supervise use in children.

Children believed to be overdosed should receive immediate medical attention.

Glossary

| | |
|---------------------------------|---|
| Anorexia: | lack of appetite or an inability to eat. |
| Arrhythmia: | any disturbance in the rhythm of the heartbeat. |
| bid | two times a day |
| Dyspepsia: | impaired digestion, indigestion. |
| Extrapyramidal Syndrome: | a syndrome that may develop in patients treated with antipsychotic drugs. Signs and symptoms include heat stroke, drug fever, primary central nervous system pathology, pneumonia and systemic infection. |
| hs | at bedtime |
| Neuroleptic Malignant Syndrome: | is a rare but potentially fatal adverse effect, characterized by rigidity, fever, weakness, infection and autonomic instability, catatonic signs and possible renal failure. |
| P.O. | by mouth |
| prn | as needed |
| qd | every day |
| qid | four times a day |
| Somnolence: | sleepy, drowsy, causing sleep |
| Syncope: | fainting, brief loss of consciousness, sudden drop in blood pressure |
| Tachycardia: | excessive rapid heartbeat |
| Tardive Dyskinesia: | an involuntary movement disorder most often characterized by puckering of lips and tongue, and/or writhing of arms or legs. |
| tid | three times a day |
| UTI: | urinary track infection |

REFERENCES

1. Nursing 2006 Drug Handbook, 2006, Springhouse Corporation, Springhouse, PA.
2. Physician Desk Reference 2005, 56th Edition, 2005, Medical Economics Company, Inc., Montvale, NJ.
3. The Pocket Guide to Prescription Drugs, 7th Edition, Pocket Books, 2005, Revised and Updated Edition, New York, NY.
4. www.healthtouch.com, 1995-2005 Cardinal Script net; Copyright©2000, Micromedex, Inc.
5. www.MentalHealth.com/drug; Phillip W. Long, M.D.; copyright©1995-2005
6. www.HealthSquare.com; Physicians Desk Reference PDR®, Medical Economics Company, Inc.

INDEX

| | |
|-------------------------|-----|
| Abilify | 75 |
| Adderal..... | 1 |
| Adderall XR..... | 3 |
| Anafranil..... | 36 |
| Ativan..... | 40 |
| Buspar..... | 43 |
| Catapres..... | 4 |
| Celexa..... | 44 |
| Cibalith-S..... | 102 |
| Clozaril..... | 77 |
| Cogentin..... | 6 |
| Concerta..... | 6 |
| Cylert..... | 8 |
| Cymbalta..... | 46 |
| Depakene..... | 97 |
| Depakote..... | 100 |
| Depakote ER..... | 100 |
| Depakote Sprinkles..... | 100 |
| Desyrel..... | 51 |
| Dexedrine..... | 10 |
| Dexedrine Spanules..... | 10 |
| Effexor..... | 49 |
| Effexor XR..... | 49 |
| Eskalith..... | 102 |
| Eskalith CR..... | 102 |
| Focalin..... | 12 |
| Focalin XR..... | 12 |
| Geodon..... | 79 |
| Haldol..... | 80 |
| Inderal..... | 14 |
| Keppra..... | 20 |
| Klonopin..... | 22 |
| Lamactal..... | 24 |
| Lexapro..... | 53 |
| Lithium..... | 102 |
| Lithobid..... | 102 |
| Luvox..... | 54 |
| Mellaril..... | 82 |
| Metadate ER..... | 6 |
| Neurontin..... | 26 |
| Norpramin..... | 56 |
| Orap..... | 84 |
| Paxil..... | 58 |
| Paxil CR..... | 58 |

INDEX

| | |
|----------------------|-----|
| Prozac..... | 59 |
| Prozac Weekly..... | 59 |
| Remeron..... | 61 |
| Remeron Soltabs..... | 61 |
| Risperdal..... | 86 |
| Ritalin..... | 16 |
| Sarafem..... | 59 |
| Seroquel..... | 88 |
| Serzone..... | 63 |
| Sinequan..... | 65 |
| Strattera..... | 18 |
| Tegretol..... | 105 |
| Tegretol CR..... | 105 |
| Tegretol XR..... | 105 |
| Thorazine..... | 90 |
| Tofranil..... | 67 |
| Tofranil-PM..... | 67 |
| Topamax..... | 28 |
| Trilafon..... | 93 |
| Trileptal..... | 31 |
| Wellbutrin..... | 69 |
| Wellbutrin SR..... | 69 |
| Wellbutrin XL..... | 69 |
| Zoloft..... | 71 |
| Zonegran..... | 34 |
| Zyprexa..... | 95 |