

MEDICATIONS MOST FREQUENTLY USED IN THE TREATMENT OF THE MOST COMMON NEUROBIOLOGICAL DISORDERS OF CHILDHOOD

ATTENTION-DEFICIT HYPERACTIVITY DISORDER

PSYCHOSTIMULANTS

RITALIN	(METHYLPHENIDATE)
ADDERALL	(ISOMERS OR SALTS OF AMPHETAMINE)
DEXEDRINE	(DEXTROAMPHETAMINE)
DEXTROSTAT	(DEXTROAMPHETAMINE SULFATE)
DESOXYN	(METHAMPHETAMINE)
CYLERT	(PEMOLINE)--FDA ABBOTT DEATH LETTER 1997--LAST USED-13 DEATHS LIVER FAILURE

MOST COMMONLY USED PSYCHOACTIVE MEDICATIONS PRIMARILY TO TREAT ADHD IN AN ESTIMATED MILLION CHILDREN BETWEEN AGES 5 AND 12 YEARS OR APPROXIMATELY 2-3% OF SCHOOL-AGE POPULATION USAGE IN ADOLESCENTS AND ADULTS HAS INCREASED SIGNIFICANTLY IN THE LAST 5 YEARS

PLETHORA OF RESEARCH ON STIMULANTS--MORE ON RITALIN THAN ANY OTHER MEDICATION--SUBSTANTIAL EMPIRICAL DATA TO SUPPORT EFFICACY IN IMPROVING ACADEMIC, BEHAVIORAL, AND SOCIAL FUNCTION IN MAJORITY OF CHILDREN TREATED, DEPENDING ON COMORBID DISORDERS AND/OR DEVELOPMENTAL DISABILITIES

DESPITE ENORMOUS AMOUNT OF SCIENTIFIC RESEARCH USE IN CHILDREN CONTINUES TO BE BOTH PUBLICLY AND PROFESSIONALLY CONTROVERSIAL FUELED IN LATE 1980s BY CHURCH OF SCIENTOLOGY

MECHANISM OF ACTION

THOUGHT TO INCREASE CATECHOLAMINERGIC ACTIVITY THROUGH INCREASING AMOUNT OF NOREPINEPHRINE AND DOPAMINE AVAILABLE AT SYNAPTIC CLEFT--THOUGHT TO WORK IN THE FRONTAL/PREFRONTAL AND CAUDATE/STRIATAL CIRCUIT--BLOCKS REUPTAKE NOREPINEPHTINE AND DOPAMINE

THERAPEUTIC EFFECTS

APPROXIMATELY 70-80% OF CHILDREN WITH CAREFULLY DIAGNOSED ADHD RESPOND POSITIVELY TO STIMULANT MEDICATION. PRIMARY EFFECTS ARE:

1. IMPROVEMENT IN ATTENTION SPAN AND REDUCTION OF DISRUPTIVE, IN APPROPRIATE, AND IMPULSIVE BEHAVIOR;
2. DECREASE IN NONCOMPLIANCE WITH ADULT COMMANDS;

3. IMPROVED PEER RELATIONSHIPS DUE TO REDUCTION IN AGGRESSIVITY; WITH CAREFUL TITRATION IN ACCORDANCE WITH ACADEMIC PERFORMANCE, PRODUCTIVITY AND ACCURACY IMPROVED.

DOSAGES AND REGIMENS SHOULD BE INDIVIDUALIZED AND ADJUSTED SLOWLY TO SUIT EACH INDIVIDUAL AND NEVER GIVEN SOLELY ACCORDING TO SOME FORMULA (E.G., BASED ON BODY WEIGHT).

MEDICATIONS ARE NOT A PANACEA NOR DO THEY "CURE" ADHD. THERAPEUTIC RESPONSE ONLY MAINTAINED WHILE MEDICATION IS ACTIVE STIMULANT MEDICATIONS THEREFORE NEED TO BE EMPLOYED ON A CONTINUOUS BASIS TO MAINTAIN POSITIVE EFFECTS. NO JUSTIFICATION FOR GIVING ONLY CERTAIN HOURS OF DAY, DAYS OF WEEK OR PERIOD OF YEAR. NEED TO BE ADMINISTERED DURING CHILD'S WAKING HOURS NOT JUST SCHOOL HOURS--CLINICAL LORE INSOMNIA--TWO RECENT STUDIES DEMONSTRATED GOOD TOLERANCE OF THIRD DOSE

OTHER THAN THE DEATHS RESULTING FROM HEPATIC DYSFUNCTION WITH PROLONGED USE OF PEMOLINE, NO DATA FOUND ON DEATHS DIRECTLY ATTRIBUTED TO USE OF STIMULANT MEDICATION

SHORT-TERM SIDE EFFECTS

- APPETITE SUPPRESSION
- INSOMNIA--SOME STUDIES HAVE QUESTIONED WHETHER PART OF DISORDER
- MILD HEADACHES OR STOMACHACHES--DIMINISH OVER TIME
- TICS--STIMULANTS DO NOT CAUSE--SEVERAL STUDIES HAVE SHOWN THAT DECREASE IN 1/3; NO EFFECT IN 1/3; AND INCREASE IN 1/3
- REBOUND--DETERIORATION IN BEHAVIOR IN AFTERNOON OR EVENING FOLLOWING TWICE-A-DAY ADMINISTRATION MEDICATION--DEPLETION
- EFFECT--USE LONGER ACTING STIMULANT OR THIRD DOSE
- COGNITIVE TOXICITY--LATER STUDIES HAVE NOT DEMONSTRATED MOST TRANSIENT AND DIMINISH WITHIN 1 TO 2 WEEKS OR WITH DECREASE IN DOSAGE. MAY NEED TO SWITCH STIMULANTS

LONG-TERM SIDE EFFECTS

NUMBER OF FOLLOW-UP STUDIES HAVE NOT REVEALED ANY SUBSTANTIAL ADVERSE EFFECTS ASSOCIATED WITH PROLONGED STIMULANT USE

- NO INCREASE IN SUBSTANCE ABUSE
- SUPPRESSION IN GROWTH PRIMARILY RELATED TO DEXTROAMPHETAMINE, TYPICALLY MINOR, TRANSIENT During First Year OR 20 FT TREATMENT and NO SIGNIFICANT EFFECT ON FINAL ADULT HEIGHT OR WEIGHT
- EFFECTS ON CARDIOVASCULAR FUNCTION (HEART RATE AND BLOOD PRESSURE) MILD AND DIMINISH OR DISAPPEAR WITH EXTENDED.3 MEDICATION USE-IF DO NOT, LOWER DOSE OR CHANGE STIMULANT OR USE OTHER CLASS OF MEDICATION

RITALIN IS SHORT-ACTING AND LASTS FROM 2-4 HOURS--5,10, 20 MG; 20 MG SR--4-5 HOURS; RANGE OF DOSAGE--5-60 MG/DAY

ADDERALL LONGER-ACTING--4-6 HOURS--5, 10, 20, 30 MG--DOSAGE RANGE 5-60 MG/DAY

DEXEDRINE IS BOTH SHORT- AND LONG-ACTING
REGULAR--DEXEDRINE--4 HOURS--5 MG; DEXTROSTAT--4 HOURS—DOSAGE

RANGE 5 AND 10 MG SPANSULE--5, 10, 15 MG--6-S HOURS--5-30 MG/DAY

BECAUSE STIMULANTS INCREASE THE PROBABLY OF OCCURRENCE OF APPROPRIATE BEHAVIOR BUT DO NOT TEACH APPROPRIATE OR PROSOCIAL BEHAVIOR, NEED TO BE USED IN CONJUNCTION WITH PARENTING AND EDUCATIONAL INTERVENTIONS

NONSTIMULANT MEDICATIONS

THEORETIC BASIS

HYPOTHESIZED OVERACTIVITY OF LOCUS CERULEUS (LC).
PRIMARY DYSFUNCTION IS LOW THRESHOLD FOR REACTIVITY TO SENSORY STIMULI WHICH RESULTS FROM INCREASED FIRING RATE OF LC BECAUSE OF NEUROCHEMICAL DEFECT IN BRAIN STEM THAT MODULATES LC ACTIVITY.

AGENTS INHIBIT FIRING ON NE NEURONS IN LC BY ACTING EITHER DIRECTLY OR INDIRECTLY ON ALPHA₂ ADRENERGIC--PROVIDES RATIONALE TCA, CLONIDINE, AND GUANFACINE COULD BE EFFECTIVE.

ALPHA₂ ADRENERGIC BLOCKING AGENTS

CATAPRES	(CLONIDINE)
TENEX	(GUANFACINE)

CATAPRES (CLONIDINE)

ALPHA₂-ADRENERGIC PARTIAL AGONIST (ANTIHYPERTENSIVE) MAY MEDIATE NE TRANSMISSION IN THE PREFRONTAL CORTEX TO ENHANCE INHIBITION OVER LOWER CNS STRUCTURE (DECREASED FIRING RATE OF LOCUS CERULEUS--POTENTIALLY EXPLAINING EFFICACY IN ADHD.)

PURPORTEDLY MOST EFFECTIVE "HYPERAROUSSED"--IMPULSIVITY, HYPERACTIVITY, EASILY FRUSTRATED AND EXPLOSIVELY AGGRESSIVE-- ALSO ANXIOUS

SMALL FREQUENT DOSES (BEHAVIORAL HALF-LIFE 3 HOURS) TO MAXIMUM OF .3-.5 MG/DAY IN THREE TO FOUR DIVIDED DOSES.

SIDE EFFECTS--DROWSINESS, SEDATION, ORTHOSTATIC HYPOTENSION, OR HYPERTENSIVE REBOUND WHEN STOPPED ABRUPTLY.

TENEX (GAUNFACINE)

ALPHA₂ ADRENERGIC AGONIST (ANTIHYPERTENSIVE)
INCREASED, RECEPTOR SENSITIVITY, LONGER BEHAVIORAL HALF-LIFE, & Milder SIDE EFFECT PROFILE.

EFFECTIVE DOSE UP TO 4 MG/DAY (TWO OR THREE DIVIDED DOSES)

SIDE EFFECTS CHILDREN--HEADACHES AND STOMACHACHES; LESS RISK SEDATION AND REBOUND HYPOTENSION THAN CLONLDINE.

EFFECTIVE ON ATTENTION, HYPERACTIVITY, IMPULSIVITY, FRUSTRATION TOLERANCE, AND ANXIETY AND POSSIBLY, TICS..

ANTIDEPRESSANTS**MONOCYCLIC**

WELLBUTRIN (BUPROPRION)

TRICYCLIC (TCAs)

NORPRAMIN (DESIPRAMINE)

TOFRANIL (IMIPRAMINE)

ELAVIL (AMITRIPTYLINE)

WELLBUTRIN (BUPROPRION)

ANTIDEPRESSANT--MONOCYCLIC AMINOKETONE--
BLOCKS REUPTAKE OF DA AT POTENCY 10-FOLD LOWER THAN MPH AND HAS
INDIRECT NOREPINEPHRINE EFFECT

EFFECTIVE DOSE FROM 1-6 MG/KG/DAY IN DIVIDED DOSES.
MAXIMUM DOSES--150 MG/DAY TO 250 MG/DAY

SIDE EFFECTS--SLIGHTLY INCREASED RISK FOR SEIZURES--LINKED TO HIGH
DOSES, PREVIOUS HISTORY OF SEIZURES RARE-EDEMA RASHES, NOCTURIA,
IRRITABILITY, ANOREXIA, AND INSOMNIA

TCAs

STIMULANT NONRESPONSE, LONGER DURATION OF ACTION, DECREASED
ABUSE POTENTIAL AND COMORBID DEPRESSION &/OR ANXIETY--BLOCKS
PRESYNAPTIC RECEPTORS/TRANSPORTERS FOR SEROTONIN, DOPAMINE, AND
NOREPINEPHRINE – ALL TCAs TOXIC TO THE HEART AT HIGH DOSES--EFFECTIVE
AGENTS OF SUICIDE--FACT FUELED SEARCH FOR ALTERNATIVE ANTIDEPRESSANTS

DMI BEST STUDIED—10-25 MG (0.5-1 MG/KG/DAY) DIVIDED DOSES
IMI—10-100MG(1-2.5 MG/KG/DAY)HS OR DIVIDED DOSES
AMI-10-25 MG (0.5-1 MG/KG/DAY) HS OR DIVIDED DOSES

DRAWBACKS INCLUDE ADVERSE EVENT RATE NEARLY TWICE THAT OF MPH
SIX SUBSTANTIATED DEATHS WITH DMI. INCREASED DIASTOLIC BP,
INCREASED HEART RATE, & INCREASED CARDIAC CONDUCTION TIME
(PROLONGED QT INTERVAL) REQUIRES CARDIAC MONITORING--OTHER SIDE
EFFECTS INCLUDE DRY MOUTH, BLURRED VISION, URINE RETENTION,
CONSTIPATION, CONFUSION AND MEMORY IMPAIRMENT, AND SEDATION

EFFEXOR (VENLAFAXINE)

HAS BOTH NORADRENERGIC AND SEROTONERGIC PROPERTIES--FIRST IN NEW CLASS
OF ANTIDEPRESSANTS--THE PHENETHYLAMINES--
INHIBIT REUPTAKE OF SEROTONIN, NOREPINEPHRINE, TO LESSER DEGREE,
DOPAMINE--GIVES BROADER SPECTRUM OF ACTIVITY.

USUAL DOSE RANGE--2.0 TO 5.0 MG/KG/DAY IN THREE DIVIDED DOSES
LESS SIDE EFFECTS THAN OTHER ANTIDEPRESSANTS (SEDATION AND
ANTICHOLINERGIC)--MOST DOSE-RELATED--NAUSEA ANOREXIA, SEDATION,

AND DIZZINESS MONITOR FOR POTENTIAL CARDIAC EFFECTS SUCH AS
DIASTOLIC HYPERTENSION

**COMBINED PHARMACOTHERAPY OR SOPHISTICATED COMBINED
PSYCHOPHARMACOLOGY**

(RATIONAL APPROACHES--NOT POLYPHARMACY--USED
TREATMENT OF COMORBID ADHD, AS AUGMENTATION STRATEGIES
FOR PATIENTS WITH INSUFFICIENT RESPONSE TO A SINGLE AGENT, AND FOR
THE MANAGEMENT OF TREATMENT EMERGENT ADVERSE EFFECTS--CLEAR
THERAPEUTIC GUIDELINES JUST NOW EMERGING--ALTHOUGH
INCREASINGLY COMMON, NOT MUCH RESEARCH DATA TO SUPPORT
PRACTICE

1. ANTIDEPRESSANT (TCAs AND SSRIs) AND STIMULANT FOR ADHD AND COMORBID DEPRESSION
2. CLONIDINE TO AMELIORATE FRUSTRATION AND INSOMNIA
3. MOOD STABILIZER AND STIMULANT OR OTHER MEDICATION TO TREAT ADHD AND COMORBID BIPOLAR

REPORTS OF CARDIAC DEATH IN FOUR CHILDREN ON COMBINATION
CLONIDINE AND MPH--FDA 55,000 CHILDREN.

8/29/94 8F ANESTHESIA, VOMITING, AUSTRALIA
PROTRACTED VOMITING FOR 1 DAY FOLLOWING GENERAL ANESTHESIA x 2.
1 WEEK LATER, AWOKE, VOMITED, COLLAPSED--TOXICOLOGIC BLOOD
ANALYSIS NEGATIVE FOR CLONIDINE AND MPH--NO CAUSE OF DEATH
1/30/95 7M HEART MURMUR, FIBROTIC CARDIAC SCARRING, CONGESTIVE
HEART FAILURE--CARDIAC ABNORMALTIES SUFFICIENT TO CAUSE DEATH
REGARDLESS OF MEDICATIONS

2/25/95 9F OCD, TS, FAS, MR, HISTORY OF SEIZURES--FLU-LIKE SYMPTOMS--
HEADACHE & NAUSEA, GRAN MAL SEIZURE--4 HRS LATER, 3 MORE AND
ARRESTED--ALSO ON FLUOXETINE & PROMETHAZINE PHARMACOLOGIC
ANALYSIS SHOWED PLASMA LEVELS OF FLUOXETINE AND NORFLUOXETINE
2-3 ORDERS OF MAGNTI'UD E GREATER THAN THOSE SEEN DURING REGULAR
TREATMENT--OVERDOSE CAUSE OF DEATH

7/30/95 10M HISTORY OF SYNCOPE, UNDETECTED CARDIAC MALFORMATION.

TOURETTE'S DISORDER

NEUROLEPTICS

TYPICAL

HALDOL (HALOPERIDOL)
ORAP (PIMOZIDE)

ATYPICAL

RISPERDAL (RISPERIDONE)

HALDOL

BLOCKS DOPAMINE₂ IN HYPOTHALAMUS
DOSAGE RANGE 0.5 MG - 5 MG/DAY
REDUCES MOTOR AND PHONIC TICS
EPS, MUSCLE SPASMS, TARDIVE DYSKINESIA (RARE), SKIN

SENSITIVITY, SEDATION, COGNITIVE SLUGGISHNESS

ORAP

BLOCKS DOPAMINE₂ IN HYPOTHALAMUS
 DOSAGE RANGE 0.5 MG - 10 MG/DAY
 REDUCES MOTOR AND PHONICS TICS
 RESTLESSNESS, UNUSUAL BODY MOVEMENTS AND POSTURES,
 PROLONGED QT INTERVAL, TARDIVE DYSKINESIA (RARE)

RISPERDAL

INHIBITS DOPAMINE₂ AND SEROTONIN₂ RECEPTORS
 DOSAGE RANGE .5 MG QD OR BID, INCREASE .5 MG EVERY COUPLE DAYS,
 MAXIMUM 4-6 MG
 HELPFUL MOTOR AND PHONIC TICS, AGGRESSION, HYPERACTIVHY,
 IRRITABILITY, SELF-INJURIOUS BEHAVIOR AND IMPROVED SOCIAL SKILLS
 ADDITIONAL BENEFIT
 WEIGHT GAIN; SEDATION--USUALLY NOT A MAJOR PROBLEM
 SLEEPINESS, ANXIETY, UNCONTROLLED MOVEMENTS, HEADACHE, NASAL
 STUFFINESS, AND AGITATION

OBSESSIVE-COMPULSIVE DISORDER; DEPRESSION; PERSISTENT MENTAL DISORDERS (AUTISM)

SSRIs

PROZAC	(FLUOXETINE)--OCD, DEP, PDD, BULIMIA
ZOLOFT	(SERTRALINE)--DEP, OCD, PANIC ATTACKS
PAXIL	(PAROXETINE)--DEP, PANIC ATTACKS
LUVOX	(FLUVOXAMINE)--OCD, DEP, PDD--FEWEST SIDE EFFECTS-USE IN CHILDREN
CELEXA	(CITALOPRAM)--NEWEST.

TCA/SRI

ANAFRANIL (CLOMIPRAMINE)--DEP, OCD, PDD

SE NEUROTRANSMISSION

ALTERED--INHIBITION OF REUPTAKE OF 5HT-- BLOCK POSTSYNAPTIC UPTAKE GET STRONGER SIGNAL-POSTSYNAPTIC--5HT 1A, 1D, 2A, 2C, 3,4

MEDICATION TARGETS

OBSESSIVE COMPULSIVE DISORDER

50%+ REDUCTION IN SYMPTOMS--OBSESSIONS, DOUBTING, RITUALS, COMPULSIONS, SELF-HARM

DEPRESSION

100 % ALLEVIATION OF SYMPTOMS

PERVASIVE DEVELOPMENTAL DISORDERS

REDUCED FREQUENCY AND INTENSITY OF REPETITIVE, RITUALIZED BEHAVIOR
 INCREASED EYE CONTACT, SOCIAL INITIATION, AND RESPONSIVITY
 DECREASED WITHDRAWAL AND EXPANDED REPERTOIRE OF INTERESTS
 DECREASE IN TANTRUMS, AGGRESSION, AND SELF-INJURIOUS BEHAVIOR
 IMPROVED ATTENTION AND "CONNECTEDNESS" TO ENVIRONMENT

PHARMACOKINETICS:

	<u>Half-Life</u>	<u>Therapeutic Dose Range</u>	
FLUOXETINE	4-6 DAYS	20-80	5-40
SERTRALINE	21 HRS	50-200	25-75
PAROXETINE	26 HRS	40-60	5-30
FLUVOXAMINE	15.6 HRS	100-300	50-150
CLOMIPRAMINE	37HRs	150-250	75-125

ADVERSE EFFECTS OF SSRIs (NOT A LOT OF PROBLEM)

NAUSEA	COMMON; DOSE-RELATED; DECREASES WITH USE
DIARRHEA	INCREASED WITH SERTRALINE
DRY MOUTH	PXT&SRT>FLV&FLX
ANOREXIA	INCREASED WITH FLX
HEADACHE	INCREASED WITH FLX
SOMNOLENCE	PRT=FLV>SRT&FLX
ANXIETY	INCREASED WITH FLX

EVIDENCE FOR EFFICACY OF SSRIs IN DEPRESSION

POSSIBLE BETTER RESPONSE
 BETTER SIDE EFFECTS PROFILE
 MINIMAL CARDIOTOXIC SYMPTOMS
 FEWER DRUG INTERACTIONS-CYTOCHROME P450 ENZYME INHIBITION
 LONGER HALF-LIFE--FLX-CONVENIENT DOSING, NO WITHDRAWAL EFFECTS

ANXIETY DISORDERS-GENERALIZED ANXIETY DISORDER, SEPARATION ANXIETY DISORDER, SOCIAL PHOBIA, SELECTIVE MUTISM, PANIC DISORDER, SIMPLE PHOBIAS, SCHOOL PHOBIA, POST-TRAUMATIC STRESS DISORDER

PHARMACOTHERAPY

SSRIS
 TCAs
 VENLAXFAXINE
 BENZODIAZEPINES
 BUSPAR
 SERZONE

BENZODIAZEPINES

XANAX (ALPRAZOLAM)
 KLONOPIN (CLONAZEPAM)

EXERT EFFECTS BY BINDING AT STEREO SPECIFIC RECEPTORS AT SEVERAL SITES WITHIN THE CENTRAL NERVOUS SYSTEM. THE EXACT MECHANISM OF ACTION IS

UNKNOWN BUT CAUSE DOSE-RELATED CNS DEPRESSANT ACTIVITY.

XANAX--0.25 MG TO 0.5 MG/DAY AT HS

KLONOPIN--0.5 MG TO 1 MG/DAY AT HS

BOTH ARE EFFECTIVE IN AMELIORATING PANIC AND ANXIETY DISORDERS
SIDE EFFECTS--DROWSINESS AND CONFUSION

BUSPAR (BUSPIRONE)

MECHANISM OF ACTION UNKNOWN. DIFFERS FROM BENZODIAZEPINES DOES NOT EXERT ANTICONVULSANT, MUSCLE RELAXANT, OR SEDATION EFFECTS. HAS A HIGH AFFINITY FOR SEROTONIN RECEPTORS

DOSAGE RANGE: 15-30 MG/DAY IN THREE DIVIDED DOSES
USED IN TREATMENT OF ANXIETY DISORDERS OR SHORT-TERM RELIEF OF SYMPTOMS OF ANXIETY; PMS; DEPRESSION
SIDE EFFECTS--DIZZINESS, NAUSEA, HEADACHE, NERVOUSNESS, LIGHTEADNESS, AND EXCITEMENT

SERZONE (NEFAZODONE)

INHIBITS REUPTAKE OF BOTH SEROTONIN AND NOREPINEPHRINE
DOSAGE RANGE: 50-100 MG/DAY IN TWO DIVIDED DOSES
USED IN TREATMENT OF DEPRESSION AND ANXIETY.
SIDE EFFECTS--NAUSEA, DIZZINESS INSOMNIA, MUSCLE WEAKNESS, AND AGITATION

BIPOLAR DISORDER

ESKALITH OR LITHOTARS (LITHIUM CARBONATE)

MOOD STABILIZERS (ANTICONVULSANTS)

KLONOPIN	(CLONAZEPAM)
DEPAKENE OR DEPAKOTE	(VALPROIC ACID, DIVALPROEX SODIUM)
TEGRETOL	(CARBAMAZEPINE)

LITHIUM IS AN ELEMENT OF THE ALKALI-METAL GROUP. ITS SPECIFIC MECHANISM IN THE CONTROL OF MANIA IS UNKNOWN-INCREASES REUPTAKE AND DECREASES RELEASE OF NE AND 5-HT

DOSAGE RANGE: 100-300 MG/DAY TWO DIVIDED DOSES--THERAPEUTIC LITHIUM LEVEL OF 0.5 TO 1.3 mEq/L
USED IN TREATMENT OF BIPOLAR DISORDER DEPRESSION, AND RAGE
SIDE EFFECTS--HAND TREMOR FREQUENT URINATION, INCREASED THIRST AND MILD NAUSEA

DEPAKENE AND DEPAKOTE ARE POSTSYNAPTIC GABA AGONISTS--MECHANISM OF ACTION POORLY UNDERSTOOD OTHER THAN INCREASES BRAIN CONCENTRATIONS OF GABA

DOSAGE RANGE: 125-300 MG IN TWO DIVIDED DOSES (60 MG/KG/DAY)
USED IN TREATMENT OF BIPOLAR DISORDER
SIDE EFFECTS: SEDATION, NAUSEA, INDIGESTION, TREMORS, AND
PHOTOSENSITIVITY

TEGRETOL IS CHEMICALLY UNRELATED TO OTHER ANTICONVULSANTS AND ITS
SPECIFIC MECHANISM OF ACTION IS UNKNOWN
DOSAGE RANGE: 200-600 MG/DAY IN TWO DIVIDED DOSES
USED IN TREATMENT OF BIPOLAR DISORDER
SIDE EFFECTS: DIZZINESS, DROWSINESS, UNSTEADINESS, NAUSEA, AND
VOMITING