



# Review of Psychotropic Drugs 2018

## Key



Cap	Capsule
CH	Chewable tablet
CR	Controlled Release
DR	Delayed Release
EPS	Extrapyramidal Side Effects
ER/XR	Extended Release
H	Hour
INJ	Injectable
IV	Intravenous
IM	Intramuscular Injection
LIQ	Liquid
LA	Long-Acting
LAI	Long-Acting Injectable
MAOI	Monoamine Oxidase Inhibitor
MAX	Maximum

OCD	Obsessive-Compulsive Disorder
ODT	Orally Disintegrating Tablet
OTC	Over-the-Counter
PO	By Mouth
NONE	Pulvules- No Abbreviation
REM	Rapid Eye Movement
SR	Sustained Release
SUPP	Suppository
Sx	Symptom(s)
TAB	Tablet
TCA	Tricyclic Antidepressant
TD	Transdermal
Tx	Treatment (of)
XR	Extended Release
↑/↓	Increase/decrease

Side Effects (SE) Degree &/or Occurrence	
-	no data
0	none
+	slight
++	moderate
+++	high
++++	very high
+++++	highest
qd	daily
bid	twice per day
tid	three times per day
qid	four times per day
hs	at bedtime

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### NOTES - General

- Do not abruptly stop any of these medications without consulting with the prescribing physician.
- All the listed medications have the potential to affect the sensorium. Caution must be taken when operating hazardous machinery, including automobiles.
- The physician and/or pharmacist must be informed of ANY other medications an individual takes before initiation of drug/psychotropic therapy due to the potential interactive effects. This includes over-the-counter medications and medicinal herbs. In addition, some foods may have an effect on the medication.
- Medication administration in children and the elderly always necessitates careful and complete individual assessment before initial dosing and maintenance therapy to best balance beneficial effects with side/adverse effects.
- Monoamine Oxidase Inhibitors (MAOI) interact with a number of Over-the-Counter drugs and foods. Make sure the individual is aware of the need to avoid consuming such drugs as those containing dextromethorphan (Robitussin©), nasal decongestants, hay-fever, sinus, and asthma medication; and foods with high tyramine or dopamine content such as beer, wine (including those that have little-to-no alcohol), pickled herring, liver, broad bean pods, cheese, yogurt, yeast extract, and excessive chocolate or caffeine. (This medication/food list is not complete.)
- Antidepressants can increase the risk of suicidality in children, adolescents and young adults with major depressive or other psychiatric disorders, especially during the first month of treatment. Patients should be monitored for clinical worsening, suicidality, or unusual behavior changes.
- Drugs that can increase/prolong the QT interval (EKG) can lead to potentially fatal Torsades de pointes. There is the possibility that patients on more than one medication that prolong the QT interval are at an even higher risk.
- **Transdermal patches:** avoid use on irritated or damaged skin. Studies show because transdermal drugs are designed with highly lipophilic agents, geriatric changes in skin hydration show no practical difference in absorption.

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## TABLE COMMENTS/ COMMON ADVERSE EFFECTS

1. Dose reductions are sometimes necessary in elderly patients.
2. Dose reductions are sometimes necessary in children and/or adolescents.
3. Safety and efficacy for some medications has not been established in children and/or adolescents.
4. **Anticholinergic Side Effects:**
  - a. At **THERAPEUTIC DOSE**: may include dry mouth, decreased sweating, headache, mydriasis (pupil dilation), blurred vision, cycloplegia (loss of ciliary eye muscle power/accommodation), urinary hesitancy & retention, constipation, palpitation (awareness of one's heartbeat), and tachycardia (rapid heart rate).
  - b. **TOXICITY**: may include signs & symptoms resembling psychosis (disorientation, confusion, hallucination, delusions, anxiety, agitation, and restlessness); coma, seizures; blurred vision; hot, dry, flushed skin; dry mucous membranes; dysphagia (difficulty in swallowing); decreased/absent bowel sounds; urine retention; hyperthermia; tachycardia; hypertension (elevated blood pressure); and increased respiratory rate. (Springhouse Nurse's Drug Guide, 2004)  
Encourage good dental hygiene since persistent dry mouth may increase the risk of dental caries.
5. Extrapyrarnidal Side Effects--This is a collection of abnormal movements affecting voluntary muscles, motor restlessness and coordination of the neck, spine, gait/walking, oral/facial, fingers, limbs, and eyes as well as associated vocalizations, breathing and swallowing. These can occur with both therapeutic and toxic dosage and may occur at any time, particularly after any dosage change (including cessation). Tardive dyskinesia is a type of extrapyramidal symptom in which the involuntary muscle movements are fixed or rhythmic. These movements may be irreversible and usually occur in individuals that have reached higher dosages of medication over longer periods of time (greater than one year).
6. Advise individual to avoid using alcohol during therapy with this medication.
7. Advise individual to avoid smoking during therapy with this medication.
8. Advise individual to use sunblock, wear protective clothing, and avoid prolonged exposure to strong sunlight to prevent photosensitivity reactions.
9. Take medication with food or milk if it causes GI (gastrointestinal) upset.
10. Sometimes, it is preferable to take full dosage of medication at bedtime to avoid daytime drowsiness. Some medications are split dosages for better symptom management.

11. Kidney Disease: Decreased dosing and increased monitoring may be needed in patients with kidney disease.

12. Liver Disease: Decreased dosing and increased monitoring may be needed in patients with liver disease.

### 13. IMPORTANCE OF HALF-LIFE ( $t_{1/2}$ ) & STEADY STATE (SS)

- Elimination Half-life ( $t_{1/2}$ ) - the time it takes for half of the drug to be eliminated from the body.
  - Elimination Half-life is affected by the elimination rate constant ( $k_d$ ) which is a patient specific factor
  - The elimination rate constant ( $k_d$ ) is determined by the patients' clearance (Cl) and volume of distribution ( $V_d$ )
- Steady state - when the rate of drug administration equals the rate of drug elimination.
- It takes approximately 5 half-lives to reach steady state. Conversely, it takes approximately 5 half-lives for a drug to completely clear a patient's system. Although the time to reach steady state is 5 half-lives, you can achieve a targeted steady state level more quickly by the administration of a one-time loading dose at the beginning of treatment.
- It is not until steady state that the true effects of the medication can be expected to be seen. Steady state may be achieved relatively quickly, while clinical response may take weeks to become evident.
- The factors that control steady state are the dose, dosing interval and clearance. While administering lower doses at longer intervals will result in lower steady state values, administration of the same dose at shorter intervals can lead to higher values, toxicities or overdoses.
  - Doing so too rapidly could actually result in toxicity or overdose, which may lead to adverse effects.
- **Obesity:** Drugs that bind to fat (high logP) or to protein will take longer to reach peak effect in patients that are obese. Obese patients may require slower and more gradual titrations up to determine optimum dose. Pharmacokinetics of drugs in obesity is multifactorial. Dosing is based on medication specific characteristics and can cause under dosing and overdosing. In general, medications that are highly lipophilic (fat soluble) have an increase in volume of distribution ( $v_d$ ) and may therefore require an increased dose to reach peak effect. These drugs may also take longer to clear an obese patient's system when the dose is decreased or the drug is discontinued.

Facts & Comparison® eAnswers. Wolters Kluwer Health, Inc 2015. Accessed 29 June 2015.

## ANTIPSYCHOTICS — Review of Psychotropic Drugs 2018

Generic (Brand)	Dosage Forms	Dosage (mg)	t <sub>1/2</sub> <sup>13</sup>	Anticholinergic Effects <sup>4/</sup>	Sedation	↓BP (Orthostasis)	EPS <sup>6/</sup>	Comments
Aripiprazole (Abilify)	T, LAI	10-30 QD (LAI: <b>Maintena®</b> :400 q4w)	75 -146 h (LAI: 30-47d)	0/+	+	+	0	<b>Note:</b> There is a <b>black box warning</b> against using any antipsychotic in pts with dementia-related psychosis due to an increase in all-cause mortality  3, 6. ↑QT ODT no longer available from manufacturer.
Asenapine (Saphris)	ODT	5-10 BID	~ 24 h	0/+	++	++	+	1, 3, 6. Weight gain typical. Avoid eating and drinking 10 minutes after dose. Do not swallow, crush, or chew.
Brexpiprazole (Rexulti)	T	0.25-4 mg QD	91 h	0/+	+	0/+	+	1, 3, 5, 11, 12. Hyperglycemia, ↑TG, ↑Wt., Titrate weekly to target response. Caution use with CYP <b>inducers</b>
Cariprazine (Vraylar)	C	1.5-6 mg QD	2-4 days	0/+	+	+	++	3, 5,6. Avoid CYP inducers and Inhibitors, avoid in severe renal and hepatic impairment, no renal and hepatic dose adjustment in mild to moderate impairment.
Chlorpromazine (Thorazine)	I, T	10-300 TID	24 h	++	+++	+++	+++	1, 2, 6, 8, 7, 12. ↑QT interval, Liquid form, if spilled on skin, can cause rash/irritation. The injection form may cause stinging.
Clozapine (Clozaril)	T, ODT, L	<b>12.5 -450 BID</b>	8-12 h	+++	+++	+++	0	1, 3 (<16yo), 6, 11, 12. ↑QT interval. Guard against agranulocytosis with blood tests. (WBC and ANC required at least every 4 weeks, but should be more frequent at initiation and with dose changes.) <b>Retitrate from 12.5mg if tx interrupted &gt;2 days.</b>
Fluphenazine (Prolixin)	T, L, I, LAI	1-10 TID-QID (LAI: 12.5-50 q2-4w)	33h (LAI: 14-26d)	+	+	+	++++	1, 2, 3 (<12yo), 6, 8. Do not mix concentrate with beverages containing caffeine, tannins (tea), or pectinates (i.e. apple juice). Caution: debilitated patients. (LAI: use Z-track injection technique.)
Haloperidol (Haldol)	T, L, I, LAI	0.5-5 BID-TID (LAI: 10-15x daily PO dose q4w)	~18h (LAI: ~21d)	+	+	+	++++	1, 2, 6, 8. ↑QT interval. Caution: debilitated patients. (LAI: use Z-track injection technique.)
Iloperidone (Fanapt)	T	6-12 BID	~ 18-33 h	+	++	++	+	1, 3, 6, 12. ↑QT interval. Weight gain typical. Avoid overheating/dehydration. Use with caution in patients with cardiovascular disease. Decrease dose by 50% if patient is concomitantly taking other drugs that inhibit CYP2D6 or CYP3A4.

Loxapine (Loxitane)	C, Powder DPI	10-125 BID 10mg per blister	8 h	+	+	+	++	3, 6, Urge periodic eye examinations.
Lurasidone (Latuda)	T	40-160 QD	~18 h	0	+	+	+++	3, 6, 9, 10, 11, 12. (Take with a 350 calorie meal containing fats.)

## ANTIPSYCHOTICS (continued) — Review of Psychotropic Drugs 2018

Generic (Brand)	Dosage Forms	(mg)	t <sub>1/2</sub> <sup>13</sup>	Anticholinergic Effects <sup>[4]</sup>	Sedation	↓BP (Orthostasis)	EPS <sup>[6]</sup>	Comments
Olanzapine (Zyprexa)	T, ODT, LAI, IM	5-20 QD (LAI: 150-300 q2w, or 405 q4w)	21-54h (LAI: ~30d)	++	++	++	+	1, 2, 3 (<13yo), 6, 7, 12. ↑QT interval. Can be used as an antidepressant (especially in combination with fluoxetine).
Paliperidone (Invega)	T(ER), LAI	6-12 QAM (LAI: 39-234 q4w)	23h (LAI: 1-4mos.)	0/+	+	+	++	1, 3, 6, 11. ↑QT interval. Tablets should not be chewed, crushed, or divided.
Perphenazine (Trilafon)	T	O: 4-8 TID H: 8-16 BID-QID	9-12 h	+	++	+	++	1, 3 (<12yo), 6, 8. Do not mix concentrate with colas, black coffee, grape or apple juice or tea. Caution: debilitated patients.
Quetiapine (Seroquel)	T, T(ER)	T: 25-400 BID T(ER): 300-800 QPM	~ 6 h	0/+	++	++	0	1, 3 (<10yo), 6, 12. ↑QT interval, Avoid overheating/dehydration. Weight gain typical. Have eye examination initially & every 6 months. Caution: debilitated patients.
Risperidone (Risperdal)	T, L, ODT, LAI	T: 2-8 BID (LAI: 12.5-50 q2w)	3-20h (LAI: 3-6d)	0/+	+	++	++	1, 2, 3, 6, 8. ↑QT interval, Avoid overheating and/or dehydration. Weight gain typical. May be taken without regard to food. LAI: do not administer more frequently than every 2 weeks.
Thioridazine (Mellaril)	T	200-800mg /day in divided doses , BID-QID	4-24 h	+++	+++	+++	+	1, 2, 6, 8, 12. ↑QT interval. Dilute solution prior to administration. Caution: debilitated patients.
Thiothixene (Navane)	C	2-10 BID- TID, up to a max of 60mg	34h	+	+	+	+++	1,2 (12-18yo), 3 (<12yo), 6, 8, 12. Caution: debilitated patients.
Trifluoperazine (Stelazine)	T	1-20 BID	24h	+	+	+	+++	1, 2 (6-12yo), 3 (<12yo), 6, 8, 12. Caution: debilitated patients
Ziprasidone (Geodon)	C, I	20-80 BID	C: ~7h I: 2-5h	+	++	++	++	1, 3, ↑QT interval, Take with food.

## ANTIDEPRESSANTS — Review of Psychotropic Drugs 2018

Generic (Brand)	Dosage Forms	Dosage (mg)	t <sub>1/2</sub> <sup>13</sup>	Anticholinergic Effects <sup>[4]</sup>	Sedation	↓BP (Orthostasis)	Sexual Dysfunction	GI Effects	Activation Insomnia	Comments
Amitriptyline (Elavil)	T	O: 50-150 QD H: 100-300 QD	13-36h	++++	++++	++	++++	++++	++++	1, 2, 3, 4, 6, 8, 11. ↑QT interval, May need to increase fluids & use stool softener as needed.
Amoxapine (Asendin)	T	50-600 QHS	8h	+++	++	+	++	++	++	1, 2, 3, 4, 6, 7, 8. Increase fluids & use stool softener as needed.
Bupropion (Wellbutrin, Zyban)	T, T(SR), T(ER)	100-200 BID IR: 100-150 TID ER: 150-450 QD	14-28h	++	++	+	0/+	0/+	0/+	3, 6, 11, 12. Take as 3 divided doses as scheduled.
Citalopram (Celexa)	T,L	20-60 QD ( max 40 mg in pts>60yo)	35h	0/+	0/+	0/+	++++	++++	++++	1, 2, 3, 6, 12. ↑QT interval.
Clomipramine (Anafranil)	C	25-75 TID	19-37h	+++	+++	++	+++++	+++++	+++++	1, 2, 3, 4, 6, 8. ↑QT interval
Desipramine (Norpramin)	T	25 – 300 QHS	12-24h	+	+	+	++	++	++	1, 2, 3, 6, 8. ↑QT interval
Desvenlafaxine (Pristiq)	T (ER)	50-400 QD	10-11h	0	0	0	+	++	+	2, 3, 4, 6, 9, 11, 12. Take with food.
Doxepin (Sinequan)	T, C, L	25 – 150 QHS	8-24h	++	+++	++	++	++	++	1, 3, 6, 8, 10, 11, 12. ↑QT interval. Dilute liquid in H <sub>2</sub> O, milk or juice (orange, grapefruit, tomato, prune, or pineapple <b>only</b> ) just prior to use.
Duloxetine	C	20 – 60	8-17h	0/+	+	+	++	+++	+++	3, 6, 11, 12.

(Cymbalta)		QD								
Escitalopram (Lexapro)	T,L	10-20 QD	22-32h	0/+	0/+	0/+	++++	++++	++	1, 3, 6, 11, 12. ↑QT interval

## ANTIDEPRESSANTS (continued) — Review of Psychotropic Drugs 2018

Generic (Brand)	Dosage Forms	Doseage (mg)	t <sub>1/2</sub> <sup>13</sup>	Anticholinergic Effects <sup>[4]</sup>	Sedation	↓BP (Orthostasis)	Sexual Dysfunction	GI Effects	Activation Insomnia	Comments
Fluoxetine (Prozac, Sarafem)	T,L, C (DR)	20-80 QAM 90 DR Qweek	1-3d	0/+	0/+	0/+	+++++	+++++	+++++	1, 2, 3, 6, 12. ↑QT interval. Do not take in the p.m. as may cause insomnia. Active metabolite: t <sub>1/2</sub> ~4-16d
Fluvoxamine (Luvox)	T, C(ER)	50-300 QD	~15h	0/+	0/+	0	+++++	+++++	+++++	1, 2, 3, 6, 7, 12.
Imipramine (Tofranil)	T,C	O: 75-200 QHS H: 100-300 QHS	11-25h	++	++	+++	++++	++++	++++	1, 2, 3, 6, 7, 8, 9, 10, 12. ↑QT interval
Isocarboxazid (Marplan)	T	10-30 BID	-	0/+	0/+	+	+++	++++	++	1, 3, 6, 10. MAOI
Levomilnacipran (Fetzima)	C	20-120 QD	12h	0	0	+	0	+	+	2, 3, 6, 11. Efficacy not established for use >8wks.
Maprotiline (Ludomil)	T	25-75 TID	21-58h	++	++	+	0/+	0/+	0/+	1, 3, 6, 8, 9, 12.
Mirtazapine (Remeron)	T, ODT	15-45 QHS	20-40h	++	+++	++	+++	+++	+++	1, 3, 6, 11, 12. ↑QT interval. ODT: After removal from package, immediately place on tongue, water not necessary.
Nefazodone (Serzone)	T	50-300 BID	2-5h	0/+	++	+	++++	++++	++++	1, 3, 6, 8. Notify MD immediately if liver failure signs are detected. Caution: debilitated patients.
Nortriptyline (Pamelor)	C,L	30-150 QHS	18-44h	++	++	+	+++	+++	+++	1, 2, 3, 6, 8, 10. ↑QT interval

## ANTIDEPRESSANTS (continued) — Review of Psychotropic Drugs 2018

Generic (Brand)	Dosage Forms	Doseage (mg)	t <sub>1/2</sub> <sup>13</sup>	Anticholinergic Effects <sup>[4]</sup>	Sedation	↓BP (Orthostasis)	Sexual Dysfunction	GI Effects	Activation Insomnia	Comments (Page 10 revised)
Olanzapine/ Fluoxetine (Symbyax)	C	6-12 / 25-50 QHS	1-16d	++	++	+++	+++	++	+	1, 3, 6. ↑QT interval. Data in this section for fluoxetine component only. See “Antipsychotics” section for information on Olanzapine.
Paroxetine (Paxil)	T, T(CR), L, C	IR:10-60 QD ( max 40mg in elderly pts) CR: 12.5- 75mg QD ( max 50mg in elderly pts)	10-24h	0	0/+	0	+++++	+++++	+++++	1, 2, 3, 6, 11, 12. ↑QT interval. The CR tablet must not be chewed or crushed. Caution: debilitated patients.
Phenelzine (Nardil)	T	15-30 TID	-	+	+	+	-	-	-	1, 3, 6, 10. MAOI
Protriptyline (Vivactil)	T	5-10 TID-QID Up to 60mg	54-198h	+++	+	+	++	++	++	1, 3, 4, 6, 8, 10, 12. Take each dose with 8 ounces of water.
Sertraline (Zoloft)	T,L	50-200 QD	1-4d	0	0/+	0	+++++	+++++	+++++	3, 12. ↑QT interval. Mix liquid form immediately before use with H <sub>2</sub> O, ginger ale, lemon/lime soda, lemonade, or orange juice only.
Tranlycypromine (Parnate)	T	10-20 TID	~3h	+	+	0	-	-	-	1, 3, 6, 10. MAOI
Trazodone	T,	50-100mg	5-10h	+	++++	++	+++	+++	+++	1, 2, 3, 6, ↑QT interval, Take with

(Desyrel)	T(ER)	BID- TID up to 400( output max , 600mg max input ) May be used up to 200mg QHS for insomnia									food.
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### **ANTIDEPRESSANTS (continued) — Review of Psychotropic Drugs 2018**

Generic (Brand)	Dosage Forms	Doseage (mg)	t <sub>1/2</sub> <sup>13</sup>	Anticholinergic Effects <sup>[4]</sup>	Sedation	↓BP (Orthostasis)	Sexual Dysfunction	GI Effects	Activation Insomnia	Comments (Page 11 revised)
Trimipramine (Surmontil)	C	O: 50-200 QHS H: 100-300 1-3 Divided doses	7-30h	++	+++	++	+	+	+	1, 3, 6, 8, ↑QT interval
Venlafaxine (Effexor)	T	75-225mg/day divided BID-TID max 375mg	5-11h	0	0	0	+++	+++	+++	1, 3, 6, 11. ↑QT interval, Take with food.
Venlafaxine XR (Effexor XR)	C(XR)	37.5-225 QD	5-11h	0	0	0	+++	+++	+++	Although t <sub>1/2</sub> is the same as the immediate-release formulation, the absorption is much slower, resulting in a longer duration of action.
Vilazodone (Viibryd)	T	10-40 QD	25h	0	0	-	+	++	+	3, 6, Take with food.
Vortioxetine (Trintelix)	T	5-20 QD	66h	++	0	0	+++	+++	0	1, 3, 4, 6.

## MOOD STABILIZERS — Review of Psychotropic Drugs 2018

Generic (Brand)	Dosage Form	Usual Adult Dosage (in mg, all adjusted per lab values)	$t_{1/2}$ <sup>13</sup>	Comments
Carbamazepine (Carbatrol, Tegretol)	T, T (ER), C, C (ER), L, CH	200-1200 BID 1600 QD (max)	IR: 25-65h (initial), then 12-17h  ER: 35-40h	2. Side effects may include nausea, dizziness, sedation, headache, dry mouth, constipation, and rash. (half-life decreases to 12-17 h on repeated dosing due to autoinduction of its own metabolism)
Lithium Carbonate (Eskalith CR, Lithobid)	C, T, T (ER), L	1200-2100 mg/day (acute mania) 900-1800mg/day (long-term) div TID-QID dosing mainly patient-specific	~24h	1,2,3 (<12yo), 11. ↑QT interval. Side effects may include nausea, fine hand tremor, ↑ urination, ↑ thirst. Toxicity: slurred speech, confusion, severe GI effects, weight gain, and acne. Drink plenty of water. Avoid caffeine.
Valproic Acid (Depakene, Depakote)	C, C(sprinkle), C(DR), T(DR), I, L, T	250-500 TID 60mg/kg/day (max)	9-16h	1, 3 (Tx for mania), nausea, diarrhea, abdominal cramps, sedation, tremor, weight gain, and rash. Give with food.

### ANXIOLYTICS (Anti-Anxiety) — Review of Psychotropic Drugs 2018

Generic (Brand)	Doseage Forms	Usual Adult Dosage (in mg, all adjusted per lab values)	t <sub>1/2</sub> <sup>13</sup>	Comments
Alprazolam (Xanax)	T, T(ER), L, ODT	0.25-0.5 TID (initial) <b>MAX:</b> 4mg/day	10-13h	1, 2, 3, 6, 7, 12. ↑t <sub>1/2</sub> : geriatrics, obesity, liver disease.
Buspirone (BuSpar)	T	7.5-30 BID	2-6h	3, 6, 9, 11, 12. Side effects may include dizziness.
Chlordiazepoxide (Librium)	C	5-25 tid/qid (anxiety) 50-300 QD (acute alcohol withdrawal)	10-48h	1, 2, 3 (<6yo), 6, 7, 11, 12. Side effects may include drowsiness, lethargy, hangover. Active metabolite: t <sub>1/2</sub> up to 95h
Clonazepam (Klonopin)	T, ODT	0.25 BID-TID (initial) 4.0 QD (max)	30-40h	1, 2, 6. Side effects may include drowsiness, ataxia, behavioral disturbances (especially in children), salivation.
Clorazepate (Tranxene)	T	7.5-30 BID-TID (anxiety) 30-90 QD (acute alcohol withdrawal)	3h	1,2,3 (< 9 years), 6, 7. Side effects may include drowsiness, lethargy, and hangover. Caution: debilitated patients. Active metabolite: t <sub>1/2</sub> up to 120h.
Diazepam (Valium)	T, IM, IV, L, Rectal gel	2-10 BID-QID (anxiety) 5-10 TID-QID (acute alcohol withdrawal)	48h	1, 2, 6, 7, 12. Side effects may include pain, drowsiness, lethargy, hangover, ataxia, phlebitis at injection site, possibility of drug dependence. ↑t <sub>1/2</sub> : pediatrics, obesity, renal failure, liver failure.
Hydroxyzine (Vistaril, Atarax)	T, C, IM, L,	50-100 QID	3-20h	2, 6, 9, 12. ↑QT interval. Side effects may include drowsiness, and dry mouth. Clinical effects are usually noted 15-30 mins post oral administration. ↑t <sub>1/2</sub> : geriatrics, liver failure.
Lorazepam (Ativan)	T, L, IM, IV	0.5-2 BID-TID	12h	1,2,3 (< 12 years),6, 7. Side effects may include drowsiness, lethargy, and hangover. Taper down after extended use. Caution: debilitated patients.
Oxazepam (Serax)	C	10-30 TID-QID	3-9h	1, 3, 6, 7. Side effects may include mental status changes. Taper down after extended use.

## Hypnotics/Sedatives (usually given at bedtime) — Review of Psychotropic Drugs 2018

Generic (Brand)	Doseage Forms	Usual Adult Dosage (mg) <i>adjusted per lab values</i>	t <sub>½</sub> <sup>13</sup>	Comments
Diphenhydramine (Benadryl, Unisom)	T, C, L, IV, IM,	25-50 QHS or Q4-6h	4-8h	6, 8. ↑QT interval. Side effects may include drowsiness, sedation, sleepiness, dizziness, nausea, dry mouth, epigastric distress, and hemolytic anemia.
Doxylamine (Unisom SleepTabs)	T, L, T (chewable)	25-100 QHS	10-18h	Dry mouth, dry eyes. Give 30 minutes prior to bedtime.
Estazolam (ProSom)	T	1-2 QHS	10-24h	1, 3, 6, 7. Side effects may include daytime drowsiness, somnolence, asthenia, hypokinesia. Caution: debilitated patients.
Eszopiclone (Lunesta)	T	2 mg QHS; <b>MAX:</b> 3 mg QHS	5-9h	1, 3 (<18 yo), 4, 5, 6, 10, 11, 12. Side effects may include headache and unpleasant taste. Do not take with or immediately following a high-fat meal. Caution: debilitated patients.
Flurazepam (Dalmane)	C	15-30 QHS	~2h	1 (start at lowest dose), 3, 6, 7. Side effects may include daytime sedation, dizziness, drowsiness, disturbed coordination, headache. Active metabolite: t <sub>½</sub> up to 100h. Caution: debilitated patients.
Midazolam (Versed)	L, IV, IM	<ul style="list-style-type: none"> <li>■ 0.07-0.08 mg/kg IM 30-60 minutes prior to procedure (usually 5 mg)</li> <li>■ 0.02-0.04 mg/kg IV infusion</li> <li>■ 0.5-0.75 mg/kg PO (max: 20 mg)</li> </ul>	2-7h	1, 2, 6, 11. Do not mix with any liquid prior to dispensing. Side effects may include decreased respiratory rate, amnesia. Obesity: calculate dose using Ideal Body Weight (IBW). Caution: debilitated patients.
Quazepam (Doral)	T	7.5-15 QHS	25-84h	3
Ramelteon (Rozerem)	T	8 mg QHS	1-5h	2 (use 4 mg QHS), 3, 6, 10. Side effects may include hallucinations. Do not administer with or immediately following a high-fat meal.
Temazepam (Restoril)	C	7.5-30 QHS	4-18h	1 (start at lowest dose), 3. Side effects may include drowsiness, dizziness, and lethargy. Taper down required after extended use. Caution: debilitated patients.
Triazolam (Halcion)	T	0.125-0.5 QHS	~2h	1 (start at lowest dose), 3, 6, 12. Side effects may include drowsiness, dizziness, and headache. ↑t <sub>½</sub> : obesity, pediatrics. Taper down required after extended use. Caution: debilitated patients.
Zaleplon (Sonata)	C	<ul style="list-style-type: none"> <li>■ 5-20 QHS</li> <li>■ Elderly: 10 mg QHS</li> </ul>	1h	1 (start at lowest dose), 3, 6, 12. Side effects may include headache and possibility of drug dependence. Do not take drug after high-fat or heavy meal. Caution: debilitated patients.
Zolpidem (Ambien)	T, T(CR), L, ODT	<ul style="list-style-type: none"> <li>■ Female/Elderly : 5 mg QHS</li> <li>■ Male: 10 mg QHS</li> </ul>	3h	1 (start at lowest dose), 3, 6, 11, 12. Side effects may include headache. Take on empty stomach immediately before bedtime. Caution: debilitated patients.

## Acetylcholinesterase Inhibitors (Cholinergics) — Review of Psychotropic Drugs 2018

Generic	Brand	Available Doseage Forms	Usual Adult Daily Dose (mg)	t <sub>1/2</sub> <sup>13</sup>	HA	N/V/D	→ appetite	Dizziness	Fatigue	Insomnia	Comments
Donepezil	Aricept	T: 5, 10, 23 ODT: 5, 10	5-10 qHS	70h	++	++	+	++	+	++	1. ↑QT interval, ↑GI bleed risk, ↑seizure risk. Possible: asthma/COPD exacerbation
Galantamine	Razadyne	T: 4, 8, 12 L: 4mg/mL	8-12 BID	7h	+	++++	+	++	+	0	1, 9, 11. ↑QT interval
Galantamine ER	Razadyne ER	8, 16, 24	16-24 q24h	7h	+	++++	+	++	+	0	1, 9, 11. ↑QT interval
Rivastigmine	Exelon	1.5, 3, 4.5, 6	1.5-6 BID	1.5h	++	+++++	+++	+++	+	++	1, 9. anxiety, asthenia, somnolence, tremor, abdominal pain, dyspepsia ↑ risk: UTIs, falls
Rivastigmine ER	Exelon ER	TD: 4.6, 9.5, 13.3	9.5-13.3 q24h	3h	+	++++	++	+++	+	+	1, 9. Same as oral, plus: agitation, irritation at application site. Do not use on damaged or easily damaged skin.

**Drugs with anticholinergic activity will decrease the efficacy of the above medications.**

Psychotropic Medications with anticholinergic effects are included in this chart.

The following drugs/drug classes also have moderate-to-high anticholinergic activity:

- Antimuscarinics (for overactive bladder)
- Antihistamines
- Muscle Relaxants
- bentrupine, amantadine, trihexyphenidyl (for Parkinsons)
- disopyramide (for arrhythmias)
- cimetidine, ranitidine (for GERD)
- ipratropium, tiotropium, aclidinium, umeclidinium (for Asthma/COPD)
- meperidine (opioid pain medication)
- atropine, dicyclomine, hyoscyamine, loperamide, prochlorperazine, promethazine, propantheline (for GI disturbances)

## Stimulants for ADHD\*\* — Review of Psychotropic Drugs 2018

Generic ■ Brand(s)	Available Doseage Forms (mg)	Usual Adult Daily Dose (mg)	$t_{1/2}^{13}$	**Additional Comments
<b>Methylphenidate</b>				
■ Ritalin	T: 5, 10, 20	2.5-20 BID to TID	2.7-3.5h	
■ Methylin	CH: 2.5, 5, 10 L: 5mg/5mL, 10mg/5mL	2.5-20 BID to TID	2.7-3.5h	
<b>Methylphenidate ER</b>				
■ Ritalin SR; Metadate ER	T: 20	10-20 once daily to BID	3.5h	
■ Ritalin LA; Metadate CD	C: 10, 20, 30, 40, 60	10-20 once daily to BID	2.5-6.8h	
■ Concerta	T: 18, 27, 36, 54	10-20 once daily to BID	3.5h	
■ Quillivant XR	L: 5mg/mL	10-20 once daily to BID	5-5.6h	
■ Daytrana	TD: 1.1mg/h, 1.6, 2.2, 3.3	1 patch/day (9h)	4h	Poss. irritation at application site. Do not use on damaged or easily damaged skin.
<b>Dexmethylphenidate</b>				
■ Focalin	T: 2.5, 5, 10	2.5-20 BID to TID	2-4.5h	Headache, Xerostomia
<b>Dexmethylphenidate ER</b>				
■ Focalin XR	C: 5, 10, 15, 20, 25, 30, 35, 40	10-40 once daily	2-4.5h	1st Peak: ~1h; 2nd Peak: ~6.5h
<b>Mixed Amphetamine Salts</b>				
■ Adderall	T: 5, 7.5, 10, 12.5, 15, 20, 30	max: 40/day (1-3 div doses)	10-14h	Peak: ~3h; Headache, Xerostomia
<b>Mixed Amphetamine Salts ER</b>				
■ Adderall XR	C: 5, 10, 15, 20, 25, 30	20-30 once daily	10-14h	Peak: ~7h; Headache, Xerostomia
<b>Dextroamphetamine</b>				
■ Dextrostat	T: 5, 10	5-20 BID; 5-10 TID	10h	
■ Dexedrine Spanule IR+SR	C: 5, 10, 15	10-40 once daily	12h	
■ Procentra; ■ Liquadd	L: 1mg/mL	5-20 BID	12h	
<b>Lisdexamfetamine</b>				
■ Vyvanse	C: 20, 30, 40, 50, 60, 70	30-70 once daily	1h	Xerostomia

**\*\*NOTE** – all of the above medications can cause: ↑ QT interval, BP, insomnia, anxiety/nervousness; ↓ appetite, weight