COMMONLY PRESCRIBED PSYCHOTROPIC MEDICATIONS

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NAME Generic (Trade)	DOSAGE	KEY CLINICAL INFORMATION
Antidepressant Medications*		
Bupropion (Wellbutrin)	Start: IR-100 mg bid X 7d, then ↑ to 100 mg tid; SR-150 mg qam X 7d then ↑ to 150 mg bid; XL-150 mg qam X 7d, then ↑ to 300 mg qam. Range: 300-450 mg/day.	Novel mechanism; **Contraindicated in seizure disorder and history of TBI** because it decreases seizure threshold; **stimulating; not good for treating anxiety disorders;** 2nd line TX for ADHD; **abuse potential.** P: C; L: Excreted/Use Caution. ¢ IR/SR/XL.
Citalopram (Celexa)	Start: 20 mg qday X 7d, then ↑ to 40 mg. MAX: 40 mg qday (MAX: 20 mg qday if ≥60 y/o, hepatically impaired, a CYP2C19 poor metabolizer, or taking a CYP2C19 inhibitor).	Well-tolerated SSRI; minimal CYP450 interactions; good choice for anxious pt. **Caution: QTc prolongation.** P: C; L: Excreted/Use caution. ¢
Duloxetine (Cymbalta)	Start: 30 mg qday X 7d, then ↑ to 60 mg qday. Range: 60-120 mg/day.	SNRI; TX for neuropathic pain; **need to monitor BP**; 2nd line TX for ADHD. P: C; L: Not recommended. $
Escitalopram (Lexapro)	Start: 5 mg qday X 7d, then ↑ to 10 mg qday. Range 10-20 mg/d (~3X potent vs. Celexa).	Best-tolerated SSRIs; minimal CYP450 interactions. Good choice for anxious pt. P: C; L: Excreted/Use caution. ¢
Fluoxetine (Prozac)	Start: 10 mg qam X 7d, then ↑ to 20 mg qday. Range: 20-60 mg/day.	More activating than other SSRIs; long half-life reduces withdrawal (t½ = 4-6 d). P: C; L: Not recommended. ¢
Mirtazapine (Remeron)	Start: 15 mg qhs. X 7d, then ↑ to 30 mg qhs. Range: 30-60 mg/qhs.	Novel mechanism; Sedating and appetite promoting; Neutropenia risk so avoid in the immunosupressed. P: C; L: Excreted/Use caution. ¢
Paroxetine (Paxil)	Start: 10 mg qhs X 7d, then ↑ to 20 mg qday. Range: 20-60 mg/day.	SSRI; Anticholinergic; sedating; **Significant withdrawal syndrome.** P: D; L: Excreted/Use caution. ¢
Sertraline (Zoloft)	Start: 25 mg qam X 7d, then ↑ to 50 mg qday. Range: 50-200 mg/day.	SSRI; limited CYP 450 interactions; mildly activating. P: C; L: Compatible. ¢
Venlafaxine (Effexor)	Start: IR-37.5 mg bid X 7d, then ↑ to 75 mg bid; ER-75 mg qam X 7d, then ↑ to 150 qAM. Range: 150-375 mg/day.	SNRI. More agitation & GI side effects than SSRIs; TX for neuropathic pain at 225 mg and above; **need to monitor BP; Significant withdrawal syndrome.** P: C; L: Not recommended. ¢ IR $ ER.
Nortriptyline (Pamelor)	Start: 25 mg qhs X 7d, then ↑ 25 mg qhs - q weekly to 75 mg qhs. Range: 75-150 mg/day.	TCA; Sedating; TX for neuropathic pain; Baseline EKG; Max dose in elderly: 100 mg; **Lethal in overdose.** P: D; L: Excreted/Use caution. ¢
***Antidepressant Medications warnings/precautions**: 1) Potential increased suicidality in first few months, 2) Long term weight gain likely (except venlafaxine & bupropion), 3) Sexual side effects common (except bupropion & mirtazapine), 4) Withdrawal syndrome frequently occurs with abrupt cessation (especially with SSRIs and SNRIs), Increased risk of bleeding with SSRIs and SNRIs (especially in combo with NSAIDs), 5) Risk for Serotonin Syndrome (except bupropion), especially with combination of drugs effecting serotonin metabolism, 6) Hyponatremia sometimes seen with SSRIs and SNRIs especially in elderly.		
Antianxiety and Sleep (Hypnotic) Medications		
Alprazolam (Xanax)	Start: IR-0.25-0.5 mg tid. Usual MAX: 4 mg/d. ER-0.5-1mg qAM Usual MAX:3-6 mg/d	**Equiv. dose: 0.50 mg.** Onset: *intermediate* (1-2 hrs). T½: 11 hrs. More addictive than other benzos and has uniquely problematic withdrawal syndrome. **Try to avoid as 1st line TX. Significant withdrawal syndrome.** P: D; L: Not recommended. ¢
Amitriptyline (Elavil)	Start: 10 mg qhs X 7d, then consider ↑ 25 mg qhs Range: 10-50mg/qhs	TCA; Sedating; TX for neuropathic pain; **Lethal in overdose.** P: C; L: Excreted/Use caution. ¢
Clonazepam (Klonopin)	Start: 0.25 mg bid Usual MAX: 4 mg/day.	**Equiv. dose: 0.25 mg.** Onset: *intermediate* (1-4 hrs). T½: 30-40 hrs. Helpful in TX mania. P: D; L: Not recommended. ¢
Diazepam (Valium)	Start: 5 mg bid. Usual MAX: 40 mg/day.	**Equiv. dose: 5 mg.** Onset: *immediate*. T½: 50-100 hrs. Caution with liver disease P: D; L: Not recommended. ¢
Lorazepam (Ativan)	Start: 0.5-1 mg bid to tid. Usual MAX: 6 mg/day. Insomnia: 0.5-2 mg qhs.	**Equiv. dose: 1 mg.** Onset: *intermediate*. T½: 12 hrs. No active metabolites, so safer in liver dz. P: D; L: Not recommended. ¢
Buspirone (Buspar)	Start: 7.5 mg bid. Range: 10-30 mg bid.	Non-benzo SSRI-like drug FDA approved for anxiety. May take 4-6 weeks to become fully effective. P: B; L: Not recommended. ¢
Hydroxyzine (Vistaril)	Start: 25-100 mg 3-4 X per day. Usual MAX: 400 mg/day.	Non-benzo Antihistamine FDA approved for anxiety. P: C (Not recommended in 1st trimester); L: Not recommended. ¢
Prazosin (Minipress)	Start: 1 mg qhs. Increase q 2-3 d until symptoms abate. Usual MAX: 10 mg qhs.	BP med used to TX nightmares. Warn about orthostasis in AM after 1st dose & after each new dosage change. P: C; L: Not recommended.¢
Trazodone (Desyrel)	Start: 25-50 mg qhs. Range: 50-150 mg qhs.	Commonly used as sleep aid; **inform about priapism risk in men**. P: C; L: Not recommended. ¢
Temazepam (Restoril)	Start: 15 mg at bedtime. MAX: 45 mg qhs.	**T½: 8.8 hrs**. Older benzo hypnotic. No P450 metabolism. More potential for physical dependence. P: X; L: Not recommended. ¢
Zolpidem (Ambien)	Start: 5-10 mg qhs. MAX: 20 mg qhs.	**T½: 2.6 hrs**. Potential for sleep-eating and sleep-driving. P: C; L: Excreted/Use caution. ¢ Available in longer acting form (CR $)
Mood Stabilizers		
Lithium	Start: 300 mg bid or 600 mg qhs. Target plasma level: acute mania & bipolar depression: **0.8-1.0 meq/L**; Maintenance: **0.6-0.8 meq/L**. Available in ER form dosed once daily (usually at HS, Lithobid & Eskalith). Plasma levels related to renal clearance.	**Black box warning for toxicity**. Teratogenic (cardiac malform.) and will **need to inform women of childbearing age of this risk**. Check Ca^{2+}, TSH and BMP before starting and q6-12 months thereafter. Advise pt about concurrent use of NSAIDS and HTN meds acting on the kidney as can decrease renal clearance. Lithium strongly anti-suicidal. P: D (Not recommended in 1st trimester); L: Contraindicated. ¢
Divalproex (Depakote)	Start: 500 mg/day (bid, DR; qday, ER); increase dose as quickly as tolerated to clinical effect. **Target plasma level: 75 to 100 mcg/mL (DR) & 85-125 mcg/ml (ER).**	**Multiple black box warnings** including for hepatotoxicity, pancreatitis, and teratogenicity (**need to inform women of childbearing age of this risk**). Need to monitor LFTs, platelet counts, and coags initially and q3-6 mo. Weight gain common. P: D/X; L: Excreted/Use caution. $
Lamotrigine (Lamictal)	Start: 25 mg qday for wks 1 & 2; then 50 mg qday for wks 3 & 4; then 100 mg qday for wk 5; and finally 200 mg qday for wk 6+ (usual target dose). Dosage adjustment required when taken w/ drugs that ↓ (e.g., Tegretol, estrogens) or ↑ (Depakote) Lamictal concentration.	**Black box warning** for serious, life-threatening rashes requiring hospitalization and d/c of TX (Stevens Johnson syndrome @ approx. 1:1-2000). No drug level monitoring typically required. Need to strictly follow published titration schedule. Fewer cognitive and appetite stimulating side effects. No evidence that doses above 200 mg more effective for mood. P: C; L: Not recommended. ¢
Antipsychotic/Mood Stabilizers**		
Aripiprazole (Abilify)	**Mania.** Start: 15 mg qday; Range: 15-30 mg/day. **MDD adj tx**. Start: 2-5 mg/day; adjust dose q1+ weeks by 2-5 mg. Range: 5-10 mg/day. MAX: 15 mg qday. **Schizophrenia**. Start: 10-15 mg/day; ↑ at 2 week intervals; Range: 10-15 mg/day; MAX: 30 mg/day.	EPS: Mild; TD Risk: Mild; Sedation: Mild; Metabolic Effects: Mild. Very long half-life: 75 hrs. Least amount of sexual side effects. FDA indication for adjunctive treatment of MDD. Potential increased suicidality in first few months. Need to screen glucose and lipids regularly. P: C; L: Not recommended. $$$
Lurasidone (Latuda)	**Bipolar Dep:** Start: 20 mg qday; Initial target: 20 mg qday Range: 20-60 mg/day. MAX: 120 mg/day. **Schizophrenia:** Start/Initial Target: 40 mg qday Range: 40-160 mg qday. MAX: 160 mg/day.	EPS: Mild to Moderate; TD Risk: Unknown; Sedation: Moderate; Metabolic Effects: Mild. It is critical to take Latuda with food (at least 350 calories) for optimal absorption (increased by up to three fold). Also, grapefruit juice should be avoided. P: B; L: Not recommended. $$$.
Olanzapine (Zyprexa)	**Mania.** Start: 10 mg qhs; Range: 10-20 mg/qhs. MAX: 20 mg/day. **Schizophrenia**. Start: 5 mg qhs; ↑ by 5 mg qhs per week; Range: 10-15 mg qhs: MAX: 20 mg/day.	EPS: Mild; TD Risk: Mild; Sedation: Moderate; Metabolic Effects: Severe. **Do not prescribe to patients with diabetes**. Need to screen glucose and lipids regularly. P: C; L: Not recommended. ¢
Quetiapine (Seroquel)	**Bipolar Dep:** Start: 50 mg qhs; Initial target: 300 mg qhs; Range: 300-600 mg/d. **Mania.** Start: 50 mg bid; Initial target: 200 mg bid. Range: 400-800 mg/d. **MDD adj tx**. Start: 50 mg qhs; Initial target: 150 mg qhs. Range: 150-300 mg/day. **Schizophrenia**. Start: 25 mg bid and increase by 50-100 mg/d (bid/tid). Initial target: 400 mg/d. Range: 400-800 mg/d.	EPS: Mild; TD Risk: Mild; Sedation: Moderate; Metabolic Effects: Moderate to Severe. FDA indication for bipolar depression and adjunctive treatment of MDD. Potential increased suicidality in first few months. Need to screen glucose and lipids regularly. **Abuse potential**. Available in an extended release form: Seroquel XR. **Avoid or use alternative in combination with methadone due to QTc prolongation**. P: C; L: Not recommended. IR $/XR $$$
Risperidone (Risperdal)	**Mania.** Start: 1-2 mg qhs;↑ by 1-2 mg/d per week. Range: 3-4 mg/day. MAX: 6 mg/d. **Schizophrenia**. Start: 1 mg qhs;↑ by 1 mg/d per week; Range: 3-4 mg/day, MAX: 6 mg/d.	EPS: Moderate; TD Risk: Moderate; Sedation: Moderate; Metabolic Effects: Moderate. Hyperprolactinemia and sexual side effects common. Need to screen glucose and lipids regularly. P: C; L: Not recommended. ¢
****Antipsychotic/Mood stabilizer warnings/precautions**: 1) Increased risk of death related to psychosis and behavioral problems in elderly patients with dementia, 2) Increased risk of QTc prolongation and risk of sudden death (especially in combination with other drugs that are known to prolong the QTc).		

po = by mouth; prn = as needed; qday = 1x/day; bid = 2x/day; tid = 3x/day; qid = 4x/day; qod = every other day; qhs = at bedtime; qac = before meals. P= pregnancy risk category L= lactation. ¢ = <$20, $ = $20-$100, $$ = $101-250, $$$ = >$250. SSRI = Selective Serotonin Reuptake Inhibitor. SNRI = Serotonin Norepinephrine Reuptake Inhibitor. **Initially developed by Stephen Thilke, MD, MPH & Alex Thompson, MD, MPH in 2008. Subsequent revisions by David A. Harrison, MD, PhD & Anna Ratzliff, MD, PhD V4.0 Aug 2015.**

Major Depressive Disorder: Limited or No Response to Treatment

Considerations

Is the patient taking the medication?

Poor adherence is common with all medications and antidepressants are no exception. Are there side effects that are limiting adherence (*e.g.*, sexual side effects) or other concerns (e.g., cost, getting addicted)?

Is the dosage high enough?

One of the most frequent causes of lack of efficacy of antidepressants is under-dosing. If the patient has showed some response but has not achieved remission to an adequate initial dosage (see guidelines in this document) after 4-6 weeks then increase the dosage. The usual maximum dosages are listed below.

Is the diagnosis correct?

Other causes of depression requiring potentially different approaches include:

Bipolar depression. In bipolar depression antidepressants frequently do not work and can trigger a manic episode.

Depression secondary to a general medical condition. Causes include hypothyroidism, cerebrovascular accident, sleep apnea, and Parkinson's Disease.

Substance induced mood disorder.

- Is the patient taking medications that could be triggering depressive symptoms? Examples include steroids, interferon, and hormonal therapy.
- Is the patient withdrawing from medications that could cause depression? Examples include withdrawal from cocaine, methamphetamine, anxiolytics.
- Is the patient abusing alcohol or other CNS depressants?

Are there untreated co-morbid conditions that are exacerbating the symptoms?

Examples include anxiety disorders (PTSD, Panic D/O & OCD), personality disorders, and somatoform disorders.

Typical Maximum Therapeutic Doses (mg/day) of Commonly Used Antidepressants unless otherwise indicated

Bupropion (Wellbutrin)	450 mg
Citalopram (Celexa)	40 mg
Duloxetine (Cymbalta)	120 mg
Escitalopram (Lexapro)	30 mg
Fluoxetine (Prozac)	60 mg
Mirtazapine (Remeron)	60 mg
Paroxetine (Paxil)	60 mg
Sertraline (Zoloft)	200 mg
Venlafaxine (Effexor)	375 mg

Good Reasons to Stop a Medication

- Intolerable side effects
- Dangerous interactions with other necessary medications
- It was never "indicated" to begin with (wrong diagnosis or wrong medicine for correct diagnosis)
- It has been at the maximum therapeutic dosage for 4-8 weeks with no response.

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