Children's Hospital Of Wisconsin

Co-Management Guidelines

To support collaborative care, we have developed guidelines for our community providers to utilize when referring to, and managing patients with, the pediatric specialists at Children's Hospital of Wisconsin. These guidelines provide protocols for jointly managing patient cases between community providers and our pediatric specialists.

Pharmacologic Management of Pediatric Depression

Diagnosis/symptom	Referring provider's initial evaluation and management:	When to initiate referral/ consider refer to Psychiatry Clinic:	What can referring provider send to Psychiatry Clinic?	Specialist's workup will likely include:
Signs and symptoms Persistent sadness, hopelessness, feeling worthless, useless or guilty or irritability ; changes in eating, sleep, energy or behavior patterns; self-injury, self-destructive behavior	**Diagnosis and Treatment** • Cognitive- Behavioral Therapy(CBT) should be the first-line treatment for mild to moderate anxiety disorders with medications used in conjunction with CBT for more severe cases. **Treatment** • Selective Serotonin Reuptake Inhibitors(SSRIs) are considered the pharmacological treatment of choice for pediatric anxiety. They, however, require close supervision in the initial stages of treatment and at subsequent dosage alterations. The current recommendation by both the FDA and the American Academy of Child and Adolescent Psychiatry(AACAP) is that the patient *ideally* be monitored weekly for the first month(phone contact is sufficient), biweekly for the next month, and monthly thereafter. • The FDA placed a "black box" warning on all antidepressants in October 2004, due to concerns of increased suicidal thinking in children and adolescents prescribed these medications. This was based on review of	If the patient fails both CBT and pharmacotherapy trials with utilizing two pharmacologic strategies consider referral to psychiatry. Prior to referral consider the Child Psychiatry Consultation Program (CPCP) http://www.chw.org/medical-care/psychiatry-and-behavioral-medicine/for-medical-professionals/psych-consult-site/	**1. Using Epic** • Please complete the external referral order **In order to help triage our patients and maximize the visit, the following information would be helpful include with your referral order:** • Urgency of the referral • What is the key question you would like answered? Note: The patient must call to schedule the appointment **2. Not using Epic external referral order:** • In order to help triage our patients maximize the visit time, please **fax** the above information to **(414-607-5288**) • It would also be helpful to include:	**After referral to Psychiatry Clinic:** Medication management, or recommendations and referral back to the referring provider to continue care

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	FDA clinical trials involving 4300 youth who received any of the currently available SSRIs. Analysis of the studies revealed a 4% risk of suicidal thinking got children on medication compared to 2% of those taking a placebo. A subsequent meta- analysis funded by the NIMH found a 3% risk of suicidal thinking for children on medication for depression compared to 2% of those taking placebo. **No suicides occurred in any of these studies.** For more information, please refer to www.parentsmedguide.org. • All SSRIs are equivalent in terms of symptom improvement, but they differ in side effect profiles and metabolism. • Possible side effects from SSRIs include increased energy, restlessness, behavioral disinhibition, stomach upset, and appetite change. Also, noted is QT prolongation in citalopram and escitalopram. They may rarely cause serotonin syndrome, Stevens-Johnson syndrome, or toxic epidermal necrolysis. The SSRIs are metabolized, in part, by the cytochrome P450 system and should be administered with caution when used with other medications metabolized this pathway. • If the first choice of SSRI is not tolerated or is ineffective, a trial of a different SSRI can be used. Consider referring to a child psychiatrist if multiple trials of SSRI have failed. • When SSRIs are being discontinued, doses should be tapered slowly while the patient is monitored for potential symptoms recurrence. The exception to this is fluoxetine, which, because its longer half-life, can be discontinued without being weaned, although patient should still be monitored for symptom recurrence. • Treatment should continue for at least 6-12 months following symptom remission. If patient does not tolerate medication discontinuance, long-term treatment is indicated.		• Chief complaint, onset, frequency • Recent progress notes • Labs and imaging results • Other Diagnoses • Office notes with medications tried/failed in the past and any lab work that may have been obtained regarding this patient's problems. Note: The patient must call to schedule the appointment.	

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Medication	Dose/MDD	Available Doses	Starting Dose/ Titration	FDA Approval	Notes
Antidepressants: SSRIs					
Fluoxetine (Prozac)	10-60mg daily	10, 20, 40, 60mg; 20mg/5ml soln	10-20mg; ↑ by 10-20mg	≥8yo for MDD ≥7yo for OCD	Has a long half-life; more likely to cause activation; use with caution in patients with QTc prolongation concerns
Sertraline (Zoloft)	12.5-200mg daily	25, 50, 100; 20mg/ml soln	12.5-25mg; ↑ by 25-50mg	≥6yo for OCD	More likely to cause GI symptoms when started; typically resolves within 2 weeks.
Citalopram (Celexa)	10-40mg daily	10, 20, 40; 10mg/5ml soln	10mg; ↑ by 10-20mg		Dose should not exceed 40mg daily because of possible risk of QTc prolongation at doses > 40mg
Escitalopram (Lexapro)	5-20mg daily	5, 10, 20; 5mg/5ml soln	5-10mg; ↑ by 5-10mg	≥12yo for MDD	Can cause QTc prolongation in overdose; can be sedating
Paroxetine (Paxil, Paxil CR, Pexeva)	10-60mg daily CR: 12.5-75mg	10, 20, 30, 40; 10mg/5ml soln; CR: 12.5, 25, 37.5 Pexeva: 10, 20, 30, 40	10mg; ↑ by 10mg; CR: ↑ by 12.5mg		More likely to cause sedation, weight gain, sexual side effects, and withdrawal symptoms.
Fluvoxamine (Luvox, Luvox CR)	25-300mg daily in divided doses	25, 50, 100	25mg daily; ↑ by 25mg; for short-acting: divide dose at 100mg total	≥8 yo for OCD	Used less often for depression, more for OCD.

Antidepressants:SNRIs					
Venlafaxine (Effexor, Effexor XR)	25-300mg daily	25, 37.5, 50, 75, 100 XR: 37.5, 75, 150, 225	37.5-75mg; ↑ by 37.5-75mg		More likely to cause activation; other potential side effects include HTN, dream disorder, tremor, hyponatremia; may also cause withdrawal symptoms; may be effective for social phobia; questionable efficacy for generalized anxiety disorder

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Duloxetine (Cymbalta)	30-120 mg given over divided doses at 60 mg	20 mg, 30 mg, 40 mg, 60 mg	30 mg; ↑ by 30-60 mg, Max dose is 120 mg	7-17 yo for GAD	Potential side effects include HA, nausea, HTN, bleeding, liver failure. Do not use in hepatic impairment. Note: no evidence that doses > 60 mg confer additional benefit
Desvenlafaxine (Pristiq)	50-400 mg	50,100	50 mg		Active enantiomer of venlafaxine; may cause hyperlipidemia and Ha; note: no evidence that doses> 50 mg confer additional benefit
Levomilnacipran (Fetzima)	20-120 mg	20, 40,80, 120	20 mg x 2 days, then increase to 40 mg; can ↑by 40 mg Max dose is 120 mg		

Antidepressants: Tricyclic Antidepressants					
Amitriptyline (Elavil)	10-200 mg	10, 25, 50, 75, 100, 150	10 mg; ↑ by 10 mg	≥ 12 yo for MDD	Potentially fatal in overdose; narrow therapeutic window; may cause weight gain, constipation, agranulocytosis, hepatotoxicity
Clomipramine (Anafranil)	25-250 mg daily	25, 50, 75	25 mg; ↑ by 25 mg	10≥ for MDD, OCD	Potentially fatal in overdose; may cause weight gain, GI symptoms, HA, vision changes, fatigue, tremor, orthostatis, hyperglycemia, agranulocytosis, hepatotoxicity
Imipramine (Tofranil)	25- 100 mg daily	10,25, 50	25 mg; ↑ by 25 mg	≥6 yo nocturnal enuresis	Potentially fatal in overdose; may cause weight gain, constipation, dizziness, somnolence, blurred vision, agranulocytosis, and QTc prolongation
Antidepressants: Other					
Bupropion (Wellbutrin, SR, XL)	75-450 mg daily	IR: 75-100 SR:100, 150, 200 XL: 150, 300	IR: 75mg daily then increase to BID or TID SR:150 mg then increase to BID, max dose 300 mg/day XL: 150 mg daily;		Dopamine reuptake inhibitor; contraindication in patients with seizure disorder and eating disorder; does not target anxiety; may help with ADHD symptom; more likely to be activating than other medications

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			↑by 75-150 mg		
Mirtazapine (Remeron)	7.5-45 mg daily	15, 30, 45; soluble form: 15, 30, 45	7.5-15mg; ↑ by 7.5-15 mg		Likely to cause weight gain and sedation. Dose usually given at bedtime. May rarely cause agranulocytosis, neutropenia, Torsades de Pointes.
Vilazodone (Viibryd)	10-40 mg daily	10, 20, 40	10mg; ↑by 10mg		Not available in generic form; may cause nausea, diarrhea, and palpitations
Vortioxetine (Trintellix)	10-20 mg	5, 10, 20	10mg; Max dose 20 mg		

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