

Major Depression in Children and Adolescents 6-17 Years

Level 0

Assessment

- Screening using multi-informant, validated rating scales that include Depression, specifically such as the Center for Epidemiological Studies Depression Scale for Children (CES-DC) and screening for comorbidity (other psychiatric and medical conditions).
- Specific screen for harm to self or others and access to firearms.
- Positive screen: DSM-IV - based interview evaluation.
- Rule out medical reason for depression (e.g., hypothyroidism, B12/folate deficiency, anemia, malnutrition (with or without eating disorder), chronic disorder (diabetes, asthma, inflammatory bowel disease, juvenile rheumatoid disease, etc).
- Rule out iatrogenic etiology of depression (i.e., medication side effects/interactions).
- Evaluate: past psychiatric and medical history, previous treatment, family conflict and current depression of family and caregivers, bullying, abuse, peer conflict, school issues and substance abuse.
- Consider and rule out presence of bipolar depression; pointers: prior (hypo)mania, family history of bipolar disorder, atypical depression with reverse neurovegetative signs, seasonal affective component, brief, recurrent episodes, melancholic depression in prepubertal child.
- Track outcomes using empirically validated tools. See Clinical Global Impression Scale (severity and improvement) and Child Depression Inventory.

Level 1

Initial Treatment Plan

- Address abuse, bullying, conflict, care giver depression.
- Establish a safety plan:
 - removal of firearms and other lethal means such as alcohol, prescription and non-prescription medications.
 - providing the adolescents with mutually agreeable and available emergency numbers and contacts.
 - engaging a concerned third party familiar with the adolescent
- Active support - 6 week trial (if mild symptoms).
 - Components of active support must include psychosocial interventions and psychoeducation and may include: self-help materials, active listening/relationship building, school involvement, mood monitoring, pleasant activities, cognitive restructuring, family conflict reduction, sleep hygiene and exercise.

Level 2

Targeted Treatment

- Start with cognitive behavior therapy (CBT)/Interpersonal therapy (IPT)/depression-specific behavioral family therapy.
- Fluoxetine or combination of CBT or IPT psychotherapy with fluoxetine (COMB).
- May consider use of citalopram and escitalopram for age 12 and above.

Major Depression in Children and Adolescents 6-17 Years, continued

Qualifiers:

- Mild: psychosocial interventions only.
- Moderate/Severe: COMB.
- Psychosis: SSRI (fluoxetine, escitalopram, citalopram) plus antipsychotic*.
- Comorbidity: COMB, treat comorbidity.
- Suicidality: intensify surveillance and follow-up; COMB if on antidepressant only or remove antidepressant if otherwise ineffective; if chronic, consider lithium augmentation.

Always Consider:

- Abuse/conflict/bullying.
- School function.
- Peer relationships.
- Sleep hygiene/exercise/diet.
- Medical conditions (e.g., hypothyroidism, B12 /folate deficiency, anemia, malnutrition (with or without eating disorder), chronic disorder (diabetes, asthma, inflammatory bowel disease, juvenile rheumatoid disease, etc).

Level 3

Inadequate Response

- If on psychosocial intervention alone, add medication.
- If on medication alone, add psychosocial intervention.
- Non-response to fluoxetine: switch to citalopram, escitalopram or sertraline.

Level 4

Poor or Non-response

- Refer to mental health specialist.
- Re-assess diagnosis (bipolar disorder, substance use disorder, anxiety disorders/PTSD), rule out medical condition (e.g., hypothyroidism – see above) or medication side effect.
- Increase psychosocial intervention and medication dose if tolerated
- Switch SSRI to bupropion or venlafaxine.
Consider augmentation of SSRI with bupropion, T3, lithium, buspirone, mirtazapine, aripiprazole, quetiapine (adult data only).
- Augment with alternate (either CBT or IPT) psychosocial intervention
- Consider change in level of care (treatment setting and interventions based on severity of illness).
- For milder form and/or seasonal affective symptoms with light sensitivity, consider bright light therapy.
- If psychotic/severe: ECT (for adolescents).

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After Maximum Medical Benefit:

- Maintenance for 9-12 months.
- Discontinuation over 3-4 months (if stable, return to premorbid functioning and no anticipated increase in stressors).
- Factors favoring maintenance treatment:
 - Partial response
 - Prior relapse
 - Suicidality
 - Comorbidity risk for relapse
 - Environmental risk for relapse
 - Family history of relapsing/recurrent major depression
 - Lack of return to full premorbid functioning.

Always Monitor:

- Adverse events
- Compliance
- Treatment or illness emergent suicidality
- Treatment or inherently emergent comorbidity
- Potential development of (hypo)mania

* *reassess diagnosis first (e.g., bipolar disorder), rule out psychostimulant or substance abuse related psychosis.*

Major Depression in Children and Adolescents 6-17 Years, continued

Drug Name	Starting Dose	Maximum Dose	FDA Approved Age
Fluoxetine	Children: 2.5 mg/day Adolescents: 5 mg/day	Children: 40 mg/day Adolescents: 60 mg/day	8-18 years
Citalopram	Children: 5 mg/day Adolescents: 10 mg/day	Children: 40 mg/day Adolescents: 40 mg/day*	Not approved for pediatric use
Escitalopram	Children: 2.5 mg/day Adolescents: 5 mg/day	Children: 20 mg/day Adolescents: 30 mg/day	12-17 years
Sertraline	Children: 12.5 mg/day Adolescents: 25 mg/day	Children: 150 mg/day Adolescents: 200 mg/day	Not indicated for MDD
Bupropion SR	Children: No Data Adolescents: Lesser of 3 mg/kg/day or 150 mg/day	Lesser of 6 mg/kg or 300 mg, with no single dose >150 mg	Not approved for <18 years

*Due to recent FDA ruling, Citalopram should not be prescribed above 40mg/day due to risk of QTc prolongation.