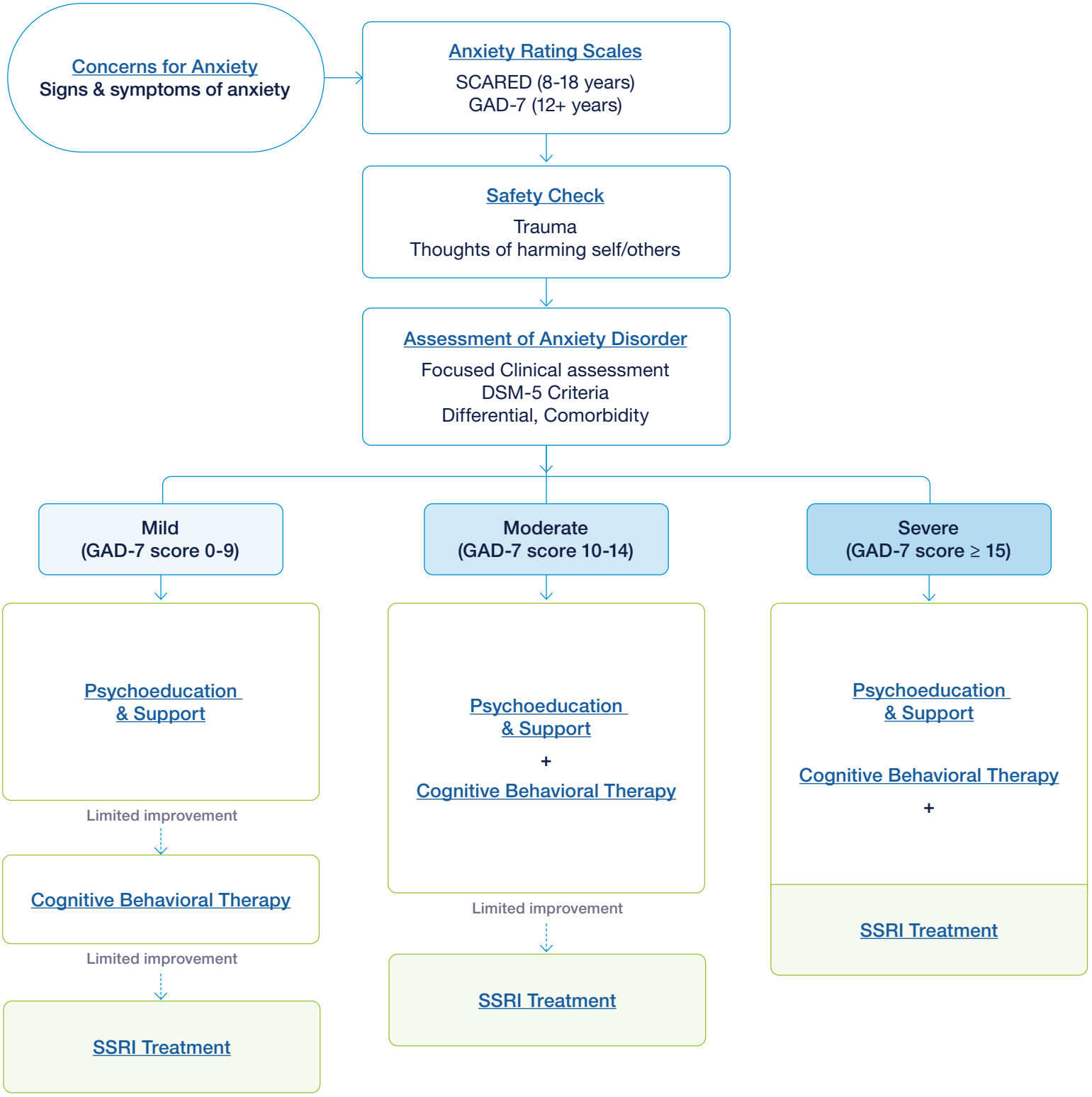
Clinical Work Pathway
Anxiety

UCSF Benioff Children's Hospitals | Child & Adolescent Psychiatry Portal



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Concerns for Anxiety

Common Signs and Symptoms of Anxiety

Irritability, Anger, Temper tantrums

Somatic complaints without medical cause

- Muscle tension
- Headache
- Stomach pain
- Restlessness
- Insomnia

Avoidance behaviors

- School refusal
- Extreme shyness
- Clinging
- Refusing to sleep alone

Change in appetite

Decline in academic performance

Anxiety Rating Scales

- SCARED (age 8-18)
- GAD-7 (age 12+)

Provider Resources Anxiety screening tools

Safety Check

Safety evaluation algorithm

Evaluation of Anxiety Disorder

Focused Clinical assessment (Clinical Pearls for History Taking)

Collateral history	• Gather collateral from family, teachers, school staff, other care takers, or after-school program • History may be obtained through rating scales, phone-calls, correspondence
Assess for functioning in multiple domains	• Family relationships • Peer relationships • School/Academic functioning; screen for learning disorders
Assess for acute stressors	• Acute stressors: stressors in family life, peer/social relationships, school/academic stressors etc
Assess for Trauma history, chronic stress	• Neglect, physical, sexual or emotional abuse • Screen for ACES
Longitudinal clinical hx of symptoms	• Onset of symptom presentation, developmental course • Behavioral concerns in earlier childhood years • Screen for developmental concerns (i.e. Developmental delay, Autism Spectrum Disorder)
Differential diagnosis and Comorbidities	• Depression, ADHD, Autism Spectrum Disorder, Substance use • Learning disorder • Physical disorders: Hyperthyroidism, Migraine, Asthma, Seizures, Hypoxemia, Anemia, Dysrhythmia • Stressors: Bereavement, adjustment to stressors • May use general screeners: PSC-17 to assess for behavioral concerns- internalizing vs externalizing vs attention problems **and/or** • Symptom targeted screeners for Depression (PHQ-9A, SMFQ), Substance use (CRAFFT)

DSM-5 Diagnostic Criteria

DSM-5 Criteria for Anxiety Disorders	
Separation Anxiety Disorder	"Developmentally inappropriate and excessive fear or anxiety concerning separation from those to whom the individual is attached, as evidenced by" 3 or more symptoms including worries about separation and behaviors to avoid separation for at least 1 month.
Social Anxiety Disorder	Significant anxiety regarding social situations accompanied by fear of being negatively judged for at least 6 months
Panic Disorder	"Recurrent unexpected panic attacks" accompanied by fear of having a panic attack or maladaptive behaviors to avoid panic attacks for at least 1 month.
Generalized Anxiety Disorder (GAD)	"Excessive anxiety and worry" for 6 months or more which is difficult to control and is accompanied by 1 (3 in adults) or more additional symptoms (restlessness, fatigue, poor concentration, irritability, muscle tension, or sleep disturbance).

For all of the above:

- Causes functional impairment or significant distress.
- Not better explained by another disorder.

Symptoms Severity

Mild (GAD 0-9):

- Anxiety has caused some interference at work/home/school, but everything that needs to be done is still getting done.
- Anxiety slightly interferes with relationships, but overall social life is still fulfilling.

Moderate (GAD 10-14):

- Anxiety is distressing at times, difficult to relax or focus, but could do it if tried.
- Frequently avoids things that are uncomfortable, and makes changes in lifestyle to avoid tasks, situations, activities, or a place.
- Anxiety interferes with tasks at home/school with fewer things getting done compared to the past.
- Still socializes sometimes, anxiety interferes with social life and does not spend as much time with others as in the past.

Severe (GAD 15 and above):

- Anxiety level is intense most of the time, difficult to relax or focus on anything else.
- Work, school performance has suffered, and in extreme cases child is avoiding school/job and has faced consequences due to anxiety interfering with ability to get things done.
- Friendships and relationships have suffered due to anxiety, rarely socializes.

Psychoeducation & Support

Normalization

1. Anxiety is a normal part of life. Everyone experiences anxiety sometimes but it can become a problem if it's causing you a lot of distress or getting in the way of your functioning. Our brains use the fight, flight, or freeze response to help us stay safe. Have you heard of this before? Basically, it means that when our brains perceive a threat, we often respond by fighting (arguing, irritability), fleeing (avoidance), or freezing (shutting down). While a little anxiety can be helpful, too much can get in the way of things. For instance, a little anxiety might help motivate you to study for your test, but too much anxiety can lead to procrastination (avoidance) which while in the short term may make you feel better, isn't helpful in the long term.

Education on Avoidance

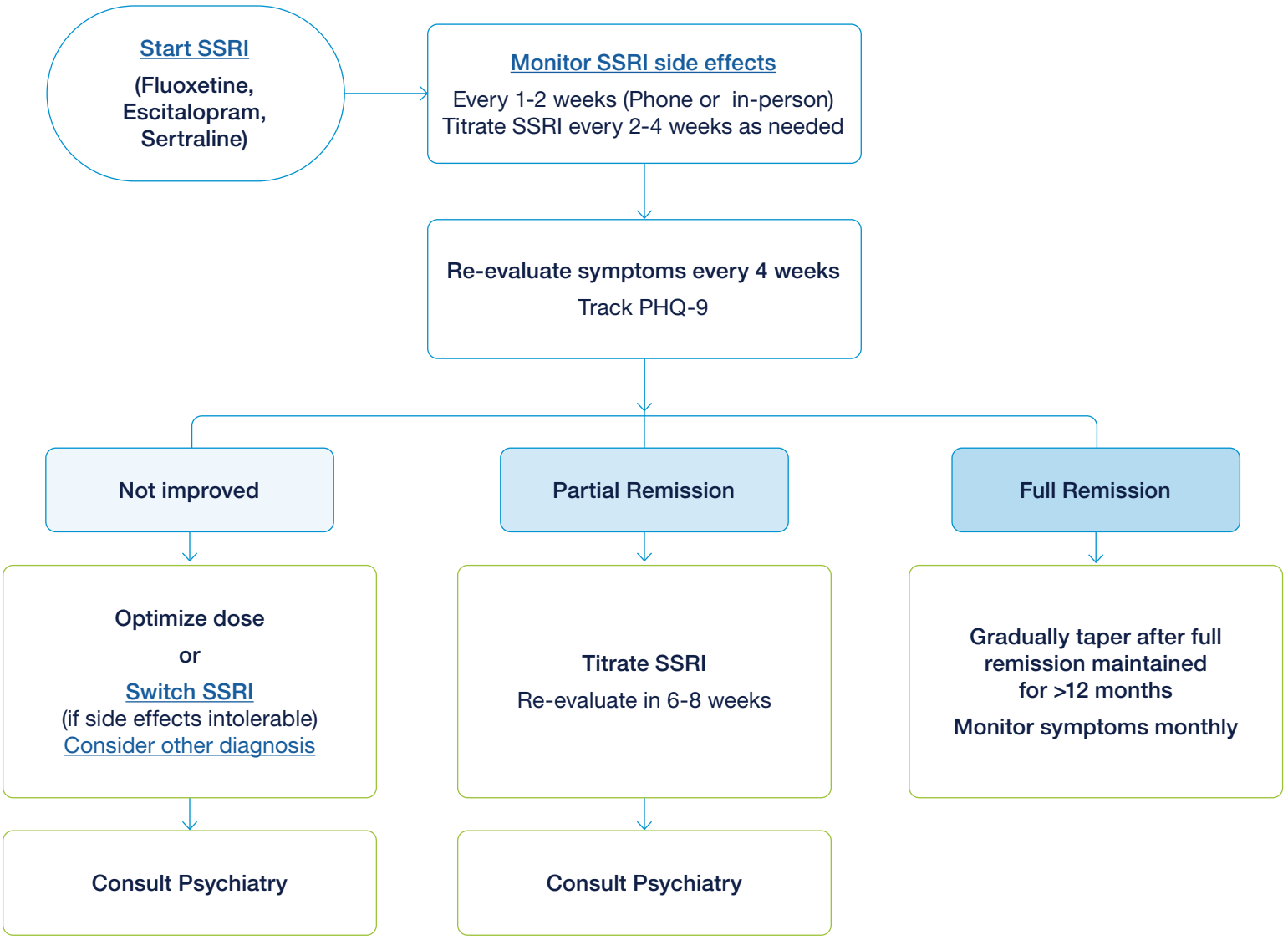
1. Avoidance is one of the key parts of anxiety. When something makes us anxious, we tend to avoid it (flight response) which then temporarily relieves the anxiety. However, most of the things that we worry about we can't avoid forever, and the more we avoid something the bigger the anxiety gets. Like in the studying procrastination example, the longer you put off studying for a test, the more the anxiety builds. This creates a feedback loop where the more anxious someone is, the more they avoid, and the bigger the anxiety gets.
2. Exposures are a strategy for stopping this feedback loop. Exposures are the opposite of avoidance; you expose yourself to what's making you anxious instead of avoiding it. While this increases your anxiety short term, with continued exposures your anxiety goes down. This is due to a process called habituation where your body gets used to things over time. Exposures are approached in a step-wise manner; you start by exposing yourself to something that's a little anxiety-provoking and practice tolerating that. Once that's okay, you gradually practice exposures to medium and then very anxiety-provoking things. For instance, if someone is afraid of snakes, they might start by talking about snakes, then looking at pictures, then a video, gradually working up to managing their anxiety while seeing a live snake. If your anxiety is milder, you can practice exposures at home with the support of your family and written resources. If your anxiety is more severe, you can work with a therapist to practice exposures as part of a treatment called Cognitive Behavioral Therapy (CBT).

Cognitive Behavioral Therapy (CBT)

CBT is a type of time-limited therapy based on the concept that thoughts, behaviors, and feelings all affect each other and that by changing our thoughts and behaviors, we can change how we feel. It is often the first choice for children and teens with depression, which ranges from 6-20 sessions. It is the psychotherapy with the most evidence for treatment of childhood anxiety disorders. It consists of five main parts:

1. Psychoeducation of kid and parents about anxiety disorders and CBT
2. Somatic management skills training
3. Cognitive restructuring
4. Exposures
5. Relapse prevention plans

SSRI Treatment



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Partial Remission:
< 2-month period devoid of signs and symptoms of major depression
Full Remission:
2-month period or longer devoid of signs and symptoms of major depression
PHQ-9 score < 5 at 12 months (Kroenke, 2001)

HYPERBOXES from SSRI Treatment algorithm

SSRI

SSRI	Starting dose (mg/day)	Titration increment (mg)	Typical Dosage range (mg/day)	Comments	FDA approval
Escitalopram (Lexapro)	5-10	5	10-20	• Well tolerated • QTc prolongation; • less drug-drug interaction • Black-box warning • Indication for Depression (age ≥ 12), anxiety	MDD (age ≥ 12)
Fluoxetine (Prozac	10-20	10	20-80	• Most activating • More drug-drug interactions • Least likely to cause discontinuation syndrome • QTc prolongation • Black-box warning • 1st line for Depression, Anxiety	MDD (age ≥ 8) OCD (age ≥ 7)
Sertraline (Zoloft)	25-50	25	100-200	• Somewhat activating • Black-box warning • Indication: Anxiety, Depression	OCD (age ≥ 6)

Adapted from San Francisco Health Network Behavioral Health Services Medication Use Improvement Committee (2019). Safer prescribing of Antidepressant medication 2017

What to Know About SSRIs

Most antidepressants take a few weeks to begin taking effect and take up to 6-8 weeks for the full effect. Consider SSRIs when an anxiety disorder is severe, interferes with participation in psychotherapy, or only partially responds to psychotherapy.

Start with fluoxetine (Prozac), escitalopram (Lexapro) or sertraline (Zoloft).

Start at a low dose and increase every 4 weeks.

Follow-up every 2-4 weeks while titrating the dose.

If good benefit, continue at minimal effective dose. If no or partial benefit and no significant side effects, continue increasing to max dose.

If significant side effects develop or there's a lack of benefit at max dose, try second SSRI.

If good benefit and no significant side effects, continue for a year and then try discontinuing by gradually tapering off the medication. Restart if they relapse.

Mild & Common Side Effects that tend to last only a few days:

- nausea (improved if the medication is taken with food)
- abdominal discomfort
- headache
- drowsiness or difficulty sleeping

More Serious & Rare Side Effects:

- increased restlessness
- increased irritability or aggression
- temporary increase in suicidal thoughts and behaviors for adolescents. The risk of increased suicidal thinking is very small (3.8% with medication compared to 2.2% with placebo). It doesn't happen suddenly. It is usually accompanied by general worsening of depressive symptoms, increased agitation, sometimes restlessness.

While rare, these more serious side effects are the **opposite** of the intended effect, so if they are feeling worse, please reach out by contacting us right away for an appointment

Other serious but very rare side effects:

- muscle rigidity, fever, excessive sweating, severe jaw clenching, tremors: these are signs of "serotonin syndrome", and require emergent medical evaluation

How to talk about Black-box warnings

Parent: Is my child/teen more likely to hurt and kill themself being on an antidepressant?

PCP: In 2004, FDA issued a black box warning that now includes all antidepressants based on 24 RCTs, due to the possible increased risk of suicidal thoughts and behaviors in young people up to age 25. There was a slightly increased risk (3.8% vs. 2.2% with placebo) of suicidal ideation and self-injury, however, **no actual increased risk of suicide found in these studies.**

The increased suicidal ideation may be related to "activation syndrome" secondary to antidepressants. With activation syndrome, people may feel more energized, agitated or restless (pacing or fidgeting). These symptoms may occur more often within the first 3 months of treatment.

Parent: Will the medication make my child/teen like a "zombie" or change their personality?

PCP: When taking and titrating as prescribed, SSRIs don't change one's personality. Rarely, at higher doses, blunted affect, apathy or "loss of emotions" could happen. Lowering the dose, augmenting with another medication, or switching to a different antidepressant (i.e. from SSRI to SNRI) may help.

Parent: Does that mean my child/teen would be better off not taking meds?

PCP: Since the black box warning issued by FDA, primacy care providers have understandably felt less comfortable prescribing these meds, and as the prescription rate went down, increased trend of child/teen depression and suicide was observed.

Depression is worth treating, and it is important to regularly follow up with me either in person or by phone to share anything about the medication that may be associated with your child/teen doing worse or better. Please feel free to contact me in this case so that we could discuss, or even consider stopping, as this is obviously the opposite of what we want.

Parent: Why is the antidepressant doing the opposite thing?

PCP: We believe that the suicidal thoughts and behaviors are still most likely associated with your child/teen's pre-existing depression. In the process of finding the right medication for their depression symptoms, we encourage your child/teen to also consider therapy. **Combining therapy with medication** can be helpful to allow patients and therapists to develop and build coping skills and language to express their thoughts and feelings, including the destructive and harmful ones.

SSRI Side effects and management strategies

Mild & Common Side effects (~10%)	Management Strategies
GI upset (Nausea, diarrhea, pain)	• Take with food. • Usually subsides within 2 weeks • Assess for other causes of eating disturbance
Headache	• Supportive care (hydration, Tylenol as needed) • Usually subsides within 1-2 weeks • Switch medication if symptoms persist and intolerable
Fatigue, low energy	• Administer at bedtime. • If symptoms persist and impairing, consider switching to different medication.
Difficulty sleeping	• Administer in AM • Discuss sleep hygiene, evaluate for other causes of sleep disorders
Less Common Side effects (<10%)	**Management Strategies**
↑ Agitation, Restlessness Anxiety	• Usually self-limiting within 2-4 weeks • May occur in 3-8% of patients • If persistent and symptoms are intolerable: • Decrease to lower dose • Switch to different medication
Sexual dysfunction	• Switch to different medication
Dry mouth	• Supportive care (sugarless gum, candy, hydrate)
Tremors	• If persists for longer than few weeks, and impairing switch to different medication
Rare & Uncommon Side effects (<1%)	**Management Strategies**
Black Box Warning **(↑ suicidal thoughts/behavior, thoughts of self-harm)**	Safety Assessment and Evaluation Consult with psychiatrist or mental health provider • FDA reviewed 24 studies with 9 different SSRIs (4,400 youth) • NO suicides in these studies • Adverse events of suicidal ideation and/or self-injurious behavior reported in 3.8% of patients on meds vs. 2.2% on placebo • No worsening or new suicidal ideation reported in 17/24 studies that inquired about SI
Increase in appetite	• Monitor weight, healthy diet
Increased bleeding time	• Medical evaluation, switch medication
Photosensitivity, SIADH	• Medical evaluation, switch medication
Serotonin Syndrome (Fever, flushing, muscle rigidity, jaw clenching, tremors, vital instability)	• Stop medications • Requires emergent medical evaluation (ER)

Switching antidepressants

Guide for switching antidepressants

Switching from	Switching to	Suggested approach
Fluoxetine	Other antidepressant	Taper -> stop -> start low, go slow with the new agent
SSRI	Other SSRI or SNRI	1. Direct switch to equivalent or lower doses 2. Cross-taper when higher doses of the initial antidepressants are used
SSRI or SNRI	TCA	1. Cross-taper for 1-2 weeks 2. Start with lower TCA doses if switching from an agent with CYP2D6** or CYP1A2*** inhibition
Any antidepressant (except MAOIs)	Mirtazapine or bupropion	Cross taper 1-4 weeks to minimize serotonin discontinuation syndrome
Bupropion	Other antidepressant	Cross taper over 1-3 weeks
Mirtazapine	Other antidepressant	Cross taper
TCA	Other antidepressant	Cross taper over 1-2 weeks

- ***When fluoxetine is involved, remember its active metabolite has long half-life of 9 days**
- ****CYP2D6 inhibition: fluoxetine, paroxetine, duloxetine. The inhibition may cause elevation of levels of medications metabolized by this pathway: TCAs, SSRIs, SNRIs, etc.**
- *****CYP1A2 inhibition: fluvoxamine**

Category of Antidepressants

Pediatric Antidepressants		Starting dose (mg/d)	Titration increment (mg)	Typical dose range (mg/d)	FDA-approved indications and age (years)
SSRI					
Citalopram	Celexa	10 - 20	10	20 - 40	—
Escitalopram	Lexapro	5 - 10	5	10 - 20	MDD (≥12)
Fluoxetine	Prozac	10 - 20	10	20 - 80	MDD (≥8), OCD (≥7)
Sertraline	Zoloft	25 - 50	25	100 - 200	OCD (≥6)
SNRI					
Venlafaxine	Effexor	37.5	75	150 - 225	—
Duloxetine	Cymbalta	20 - 30	20 - 30	40 - 60	GAD (≥7)
Desvenlafaxine	Pristiq	25	25	25 - 100	—
Atypical antidepressants					
Bupropion XL	Wellbutrin XL	150	150	150 - 450	—
Mirtazapine	Remeron	7.5 - 15	7.5-15	15 - 45	—
Vilazodone	Viibryd	Not studied			—
Vortioxetine	Trintellix	5	5	5 - 20	—
Tricyclic antidepressants					
Clomipramine	Anafranil	25	25	50 - 200	OCD (≥10)
Desipramine	Norpramin	25 - 50	25	50 - 200	—
Nortriptyline	Pamelor	10 - 50		30 - 50	—
Imipramine	Tofranil	10 - 25		50-100	Enuresis (≥7)

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Resources for Providers

AACAP Anxiety Disorder Resource Center
https://www.aacap.org/AACAP/Families_and_Youth/Resource_Centers/Anxiety_Disorder_Resource_Center/Home.aspx

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Text Only Version of Main Flowchart

Title: "Clinical Work Pathway Anxiety"

1. First step is "Concerns for Anxiety **Signs & symptoms of anxiety**"
2. Then "Anxiety Rating Scales: SCARED (8-18 years); GAD-7 (12+ years)"
3. Then "Safety Check**:** Trauma; Thoughts of harming self/others"
4. Then "Assessment of Anxiety Disorder**:** Focused Clinical assessment; DSM-5 Criteria; Differential, Comorbidity"
5. Then stratify 3 actions steps
    - I. **Mild (GAD-7 score 0-9)**: 1st line of treatment; Psychoeducation & Support: If limited improvement then 2nd line of treatment: Cognitive Behavioral Therapy. If limited improvement then 3nd line of treatment: SSRI Treatment
    - II. **Moderate (GAD-7 score 10-14)**: 1st line of treatment; Psychoeducation & Support and Cognitive Behavioral Therapy**.** If limited improvement then 2nd line of treatment: SSRI Treatment
    - III. **Severe (GAD-7 score≥15):** Psychoeducation & Support and Cognitive Behavioral Therapy **and** SSRI Treatment

Rev. 08/01/21

Text Only Version of SSRI Treatment Flowchart

Title: "SSRI Treatment"

1. First step is "Start SSRI: **(Fluoxetine, Escitalopram, Sertraline)**"
2. Then "Monitor SSRI side effects**:** Every 1-2 weeks (Phone or in-person); Titrate SSRI every 2-4 weeks as needed"
3. Then "**Re-evaluate symptoms every 4 weeks:** Track PHQ-9"
4. Then stratify 3 actions steps
    - I. **Not improved**: 1st line of treatment; **Optimize dose or** Switch SSRI (if side effects intolerable) Consider other diagnosis. Then **Consult Psychiatry**
    - II. **Partial Remission**: 1st line of treatment; **Titrate SSRI** Re-evaluate in 6-8 weeks. Then **Consult Psychiatry**
    - III. **Full Remission:** Gradually taper after full remission maintained for >12 months **Monitor symptoms monthly**

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