

# MEDICATION MANAGEMENT OF ADULT ATTENTION-DEFICIT/HYPERACTIVITY DISORDER (ADHD) IN PRIMARY CARE

An outreach service for Medicaid providers to help identify and prevent potential gaps in evidence-based care, as well as detect fraud, abuse, overuse or inappropriate use.

<https://shealthviz.sc.edu/tipsc-1/>



## PICK UP QUICK TIPS ON...treating ADHD in adults based on comorbidities and patient characteristics

Monitor patients for functional and symptomatic progress toward treatment goals and medication tolerability.

## QUICKtip SC

Engage patients in good sleep habits. As many as 3 out of 5 adults with ADHD report sleep problems and poor sleep makes it harder to manage ADHD symptoms.

## QUICK FACTS TO CONSIDER

- ADHD **often persists** into adulthood with hyperactive symptoms usually manifesting in a more subtle way and inattentive symptoms persisting.
- Undiagnosed ADHD **may emerge** more clearly in adults with the increasing demands of higher learning, work, or family responsibilities.
- Different genders may present with different symptoms; ADHD is thought to be underrecognized and **underdiagnosed in females**.
- Initiation of ADHD medications (stimulants and non-stimulants) in adults has been associated with a **reduction in mortality** from accidental injuries and other unnatural causes.

## FORMAL RATING SCALES AID AT BASELINE AND ONGOING

Assess results from a formal rating scale, input from other sources (e.g., partner, co-worker, family member), and a full clinical interview during your baseline assessment – *rating scale results alone are not enough for an official diagnosis.*

Engage patients in conversations to identify what personal needs led them to ask for medication. Agree on SMART (Specific, Measurable, Achievable, Realistic, and Timely) goals<sup>1</sup> along with an action plan that addresses what they desire to achieve with treatment.

Use a combination of results from shorter-version rating scales and progress on SMART goals for ongoing monitoring of functional and symptomatic progress for you and your patient.

## SELECT SELF-REPORT RATING SCALES FOR USE IN ADULT ADHD

*All scales are validated for use during baseline assessment*

Tool	Number of Questions	Time to Completion	Observer Form <sup>2</sup>	Comments
<b>Adult ADHD Self-Report Scale 6-Question Screener (ASRS-v1.1)</b> <sup>3</sup>	6	3 minutes	N	Aligns with DSM-IV criteria; Easily scored (positive screen ≥ 14); Translated into 20 languages; Free and easily accessible online: <a href="https://www.hcp.med.harvard.edu/ncs/asrs.php">https://www.hcp.med.harvard.edu/ncs/asrs.php</a>
<b>Barkley Deficits in Executive Functioning Scale (BDEFS)</b>	20 (screen) 89 (long)	4 – 5 min 15 – 20 min	Y	Not specific to ADHD – beneficial in detecting executive function impairments in ADHD and other frontal lobe disorders; Long scale scoring differs per age range; For purchase
<b>Weiss Functional Impairment Rating Scale – Self Report (WFIRS- S)</b>	69	5-7 minutes	Y <sup>4</sup>	Detects functional improvement (total score of ≥ 13 considered significant improvement); Translated into 18 languages; For purchase

1. SMART goal example: set a 5-minute timer to get started (and keep going) on a boring task 5 days a week. 2. In addition to self-report patient form. 3. ASRSv1.1 18-item symptom checklist and ASRS-5 6-item screener (aligns with DSM-V) also available. 4. Parent-specific observer form.

## MULTIPLE VISITS AND CONVERSATIONS HELP INFORM TREATMENT

Let your patients know upfront there will be **multiple visits prior to a stimulant** prescription. Two to three office visits allow time to understand how symptoms impact daily life and any alternative reasons for requesting a stimulant (e.g., weight loss, performance, intentional or unintentional help coping with symptoms of another mental health condition). Be curious and engage patients in conversations to:

- ◆ Educate on adult ADHD and the **multimodal approach** to treatment (i.e., psychoeducation, non-drug strategies, and medication)
- ◆ Ask what symptoms they expect medication to improve and how they hope it will **impact their lives**
- ◆ Ask about current medications and supplements and educate on **risks of self-medicating** to manage symptoms (e.g., caffeine, cigarettes, alcohol, marijuana)
- ◆ Understand that a positive emotional experience or improved productivity on a stimulant is not diagnostic of ADHD

## NON-DRUG STRATEGIES ARE FOUNDATIONAL TO ALL TREATMENT PLANS

Adults with ADHD often need assistance developing healthy habits and routines to improve symptoms and executive functioning. During the initial visit, help patients identify non-drug strategies they would be willing to incorporate into their daily lives and encourage them to **get started on one right away** – even before starting any medications.

### NON-DRUG STRATEGIES FOR MANAGING ADHD

Strategy	Self-Guided Resources	Tips for Incorporating Strategy / Comments
<b>Cognitive Behavioral Therapy (CBT)</b>	<a href="https://bit.ly/free_CBT">https://bit.ly/free_CBT</a>	Try the FreeCBT app when stuck in an “all or nothing” mindset; Formal therapy yields benefits after 12 to 15 one-hour sessions but many patients continue therapy; For use as adjunctive treatment with medication
<b>Regular Exercise</b>	<a href="https://www.nike.com/ntc-app">https://www.nike.com/ntc-app</a>	Incorporate an enjoyable aerobic exercise (e.g., walking, running, biking, swimming) into your daily routine; As little as 10 minutes of aerobic exercise may improve impulsivity; Add variety – don’t do the same exercise everyday (e.g., try a group class or exercise outdoors)
<b>Good Nutrition</b>	<a href="https://bit.ly/Nutrition_Label_Facts">https://bit.ly/Nutrition_Label_Facts</a> <a href="https://add.org/adhd-diet/">https://add.org/adhd-diet/</a>	Poor diet choices (e.g., fast food, sugary drinks) may be associated with adult ADHD symptoms; check labels for “Added Sugars”; Add healthy eating habits – one habit at a time; Consider increasing protein (e.g., fish, low-fat dairy), vegetables, whole grains, fruit
<b>Mindfulness</b>	<a href="https://www.youtube.com/watch?v=y5EqO8CQ_cQ">https://www.youtube.com/watch?v=y5EqO8CQ_cQ</a> <a href="https://mobile.va.gov/app/mindfulness-coach">https://mobile.va.gov/app/mindfulness-coach</a>	Schedule 5 to 10 minutes a day to focus on your breathing; use an alarm to keep track of time; Practice by keeping focus on the sensations and actions while performing routine activities like brushing your teeth, washing dishes, or walking
<b>Healthy Sleep Habits</b>	<a href="https://bit.ly/ADHD_Sleep_Handout">https://bit.ly/ADHD_Sleep_Handout</a> <a href="https://mobile.va.gov/app/cbt-i-coach">https://mobile.va.gov/app/cbt-i-coach</a>	Go to bed at the same time and set an alarm to wake up at the same time every day (even on weekends); Place cell phone and electronic devices away from bed; Follow the same soothing routine every night and end the evening quietly with low light and low activity

# PATIENTS WITH ADHD OFTEN HAVE MENTAL HEALTH COMORBIDITIES

**Establish all co-occurring mental health conditions PRIOR** to prescribing ADHD meds to determine the best order of treatment as part of an individualized treatment plan

Consider **slower dose titrations and more frequent monitoring** for adverse effects, response to treatment, and significant drug interactions when initiating ADHD medications

**Screen patients for ADHD** who have symptoms of other mental health conditions (e.g., anxiety) and are **not responding to treatment** or present with functional difficulties and problems that suggest ADHD

## PRIMARY CARE CONSIDERATIONS FOR SELECT MENTAL HEALTH COMORBIDITIES

*Prioritize the presence of suicidal and violent thoughts*

Condition (Select Screening Tool)	What to Treat First	Medication/Treatment Considerations
<b>Bipolar Disorder (BD)</b> (MDQ and PHQ-9)	BD	Offer ADHD medication when therapeutic levels of a mood stabilizer are established ( $\alpha_2$ agonists [e.g., clonidine] can be initiated with mood stabilizer); Discontinue stimulant if mania is triggered; once mood is stabilized cautiously restart stimulant (start low, go slow); Refer to specialist when appropriate
<b>Substance Use Disorder (SUD)</b> (Single-Item Screen for Polysubstance Use) <sup>1</sup>	Active, severe SUD	Consider atomoxetine or stimulant formulations with lower abuse potential (e.g., long-acting methylphenidate, lisdexamfetamine); Consider co-management with SUD treatment team; Refer to specialist when appropriate
<b>Depression</b> (PHQ-9)	Moderate to severe depression, otherwise most impairing disorder	Consider combination of stimulant + SSRI or SNRI and monitor for serotonin syndrome; Consider treatment with bupropion; Atomoxetine monotherapy not recommended; Dysthymia and mild depression may benefit from treating ADHD first
<b>Anxiety</b> (GAD-7)	Most impairing disorder	Consider combination of stimulant + SSRI or SNRI (consider starting the SSRI/SNRI first and add stimulant when anxiety symptoms have improved) and monitor for serotonin syndrome; Atomoxetine may be beneficial for both ADHD and anxiety; Stimulants may increase anxiety – titrate slowly
<b>Sleep Disorders</b> (Epworth Sleepiness Scale)	Most impairing disorder	Identify if sleep disturbance <sup>2</sup> existed prior to medication; Offer non-drug options first – sleep hygiene education <sup>3</sup> and CBT-i; Take stimulant dose earlier in day – consider short-acting formulation or switch to non-stimulant (e.g., atomoxetine); Consider short-term ( $\leq 4$ weeks) adjunctive treatment with sleep medication <sup>4</sup>

**1.** How many times in the past year have you had 5 (male) / 4 (female) or more drinks in a day? (> 0 positive). How many times in the past year have you used an illegal drug or prescription medication for non-medical reasons (for example, because of the experience or feeling it caused)? (> 0 positive). **2.** Screen for obstructive sleep apnea if symptoms of sleep-related breathing disorders. **3.** Sleep hygiene is not a stand-alone treatment for chronic insomnia disorder. **4.** Strength of evidence for sleep agents is weak.

**KEY:** CBT-i Cognitive Behavioral Therapy – insomnia; GAD-7 General Anxiety Disorder 7-item scale; MDQ Mood Disorder Questionnaire; PHQ-9 Patient Health Questionnaire 9-item depression scale; SSRI Selective serotonin reuptake inhibitor; SNRI Serotonin and norepinephrine reuptake inhibitor

# SELECT STIMULANT AND NON-STIMULANT MEDICATIONS FOR ADULT ATTENTION-DEFICIT/HYPERACTIVITY DISORDER (ADHD)

Remember to check **SCRIPTS** ( PDMP or NARX report) prior to prescribing a stimulant (C-II) and every three months thereafter (<https://southcarolina.pmpaware.net/login>)

**SCREEN for PRE-EXISTING CONDITIONS** including cardiac disease, mental health conditions (e.g., bipolar disorder, psychosis), and pregnancy/lactation **PRIOR** to starting any medication

**FOLLOW-UP QUICKLY** (1-week) after initiating stimulant medication to titrate dose based on response and tolerability; non-stimulant medications may take up to 4 weeks to see response

**MONITOR ALL PATIENTS** for new mood, anxiety, substance use disorder, psychotic or manic symptoms, suicidal behavior or ideation, aggressive behavior (new or worsening), appetite, irritability/mood swings, and changes in cardiac conditions

**AGREE ON SMART GOALS** (e.g., create 25-minute work blocks without distractions followed by a five minute break – repeat 4 cycles then enjoy a 15-30 minute break) to assess treatment response

## SELECT FDA-APPROVED STIMULANT ADHD MEDICATION DOSING GUIDELINES<sup>1</sup>

*Start low and titrate weekly based on response and tolerability<sup>2</sup>*

Medication (Brand Example) (%IR/%DR)	Initial Dose (Weekly Titration)	Onset (minutes)	Duration (hours)	FDA Max Daily Dose	Off-Label Max Daily Dose	Misuse/ Abuse Potential	Comments
<b>METHYLPHENIDATE</b>							
<b>Short-Acting (Twice Daily Dosing)</b>							
<b>Methylphenidate</b> (Ritalin <sup>®</sup> )	5-10 mg (5-10 mg/day)	20-30	3-5	60 mg	100 mg	++	Take 30-45 minutes before meals
<b>Dexmethylphenidate</b> (Focalin <sup>®</sup> )	2.5 mg (2.5-5 mg/day)	30	3-5	20 mg <sup>3</sup>	50 mg		High-fat meal delays absorption by 1.5 hours
<b>Intermediate-Acting (Once Daily Dosing)</b>							
<b>Methylphenidate ER<sup>4</sup></b> (Methylin ER <sup>™</sup> ) <sup>5</sup>	20 mg (10-20 mg/day)	60-90	3-8	60 mg	100 mg	+	Sustained-release tablet; May require BID dosing
<b>Long-Acting (Once Daily Dosing)</b>							
<b>Methylphenidate<sup>4</sup></b> (Ritalin LA <sup>®</sup> ) (50/50)	10-20 (10 mg/day)	100	6-8	60 mg <sup>3</sup>	100 mg	+	Mimics BID dosing; High-fat meal delays first peak
<b>Methylphenidate<sup>4</sup></b> (Concerta <sup>®</sup> ) (22/78)	18-36 mg (18 mg/day)	30-60	8-12	72 mg	108 mg		Tablet shell may be seen in stool
<b>Dexmethylphenidate<sup>4</sup></b> (Focalin XR <sup>®</sup> )(50/50)	10 mg (10 mg/day)	30	9-12	40 mg	50 mg		Mimics BID dosing; High-fat meal delays first peak
<b>AMPHETAMINES</b>							
<b>Short-Acting (Twice Daily Dosing)</b>							
<b>Mixed Amphetamine Salts</b> (Adderall <sup>®</sup> )	5 mg (5 mg/day)	30	4-6	40 mg <sup>3</sup>	60 mg	+++	
<b>Intermediate-Acting (Once Daily Dosing)</b>							
<b>Dextroamphetamine<sup>4</sup></b> (Dexedrine Spansules <sup>®</sup> )	5 mg (5 mg/day)	60-90	5-8	40 mg <sup>3</sup>	60 mg	++	Sustained-release capsule; May require BID dosing
<b>Long-Acting (Once Daily Dosing)</b>							
<b>Mixed Amphetamine Salts<sup>4</sup></b> (Adderall XR <sup>®</sup> )	10-20 mg (10 mg/day)	30	8-12	40 mg	60 mg	++	Mimics BID dosing; Food delays peak by 2-3 hours
<b>Mixed Amphetamine Salts<sup>4</sup></b> (Mydayis <sup>®</sup> )	12.5-25 mg (12.5 mg/day)	30	12-16	50 mg	-	++	Longest duration; Food delays peak by 5 hours
<b>Lisdexamfetamine<sup>6</sup></b> (Vyvanse <sup>®</sup> )	30 mg (10-20 mg/day)	90-120	12-14	70 mg	-	+	High-fat meal delays absorption by about 1 hour; Less weight loss

## SELECT NON-STIMULANT ADHD MEDICATION DOSING GUIDELINES<sup>1</sup>

*Non-stimulant medications have no abuse potential*

Medication (Brand Example)	FDA Approved in Adults	Initial Dose (Titration)	Onset (weeks)	Duration (hours)	FDA Max Daily Dose (Off-Label Max Daily Dose)	Comments
<b>Atomoxetine<sup>2,3</sup></b> (Strattera <sup>®</sup> )	Y	40 mg QAM (May increase to 80 mg/day in 1-2 divided doses after minimum of 3 days)	1-4	24	100 mg (120-160 mg)	Divided doses and slower titrations can minimize GI side effects (nausea); High-fat meal delays peak by 3 hours; Do not open capsule
<b>Viloxazine ER<sup>3</sup></b> (Qelbree <sup>®</sup> )	Y	200 mg QAM (200 mg weekly)	1-2	24	600 mg (- <sup>4</sup> )	Better GI profile compared to atomoxetine but greater rates of insomnia and somnolence; Discontinue in pregnancy
<b>Clonidine ER<sup>2</sup></b> (Kapvay <sup>™</sup> )	N	0.1 mg QHS (0.1 mg weekly)	1-2	12-14	(0.4 mg) <sup>5</sup>	Do not stop or abruptly taper off; Not a 1:1 conversion between clonidine products;
<b>Clonidine</b> (Catapres <sup>®</sup> )	N	0.1 mg QHS (0.1 mg/day every 2-3 days) <sup>6</sup>	2-8	4-6	(0.4 mg) <sup>5</sup>	Higher rates of somnolence and hypotension compared to guanfacine; Option for adjunct use with stimulant
<b>Guanfacine ER<sup>3</sup></b> (Intuniv <sup>®</sup> )	N	1 mg daily (1 mg weekly)	2-3	12-24	(7 mg) <sup>5</sup>	Do not stop or abruptly taper off; Mimics BID dosing; High-fat meals increase exposure and risk of side effects; Option for adjunct use with stimulant (4 mg max)
<b>Guanfacine<sup>3</sup></b> (Tenex <sup>™</sup> )	N	1 mg QHS (1 mg every 3-4 days) <sup>7</sup>	2-8	6-8	(4 mg) <sup>5</sup>	Do not stop or abruptly taper off; Not a 1:1 conversion to guanfacine ER
<b>Bupropion<sup>3</sup></b> (Wellbutrin SR <sup>®</sup> ) <sup>8</sup>	N	100 mg QAM (increase to 100 mg BID after 1 week) <sup>9</sup>	1-2	24-48	(400 mg) <sup>5</sup>	Tolerability varies
<b>Bupropion<sup>3</sup></b> (Wellbutrin XL <sup>®</sup> ) <sup>8</sup>	N	150 mg for 1 week (increase to 300 mg daily after 1 week for 3 weeks then to 450 mg if needed)	1-2	24-48	(450 mg) <sup>5</sup>	

**1.** Other formulations available (e.g., Azstarys<sup>™</sup> [longest acting dexmethylphenidate], Jornay PM<sup>®</sup> [methylphenidate with 12-hour onset]). **2.** Common side effects are insomnia, appetite loss, headache, dry mouth, weight loss; refer to package inserts for more detail on adverse effects, drug interactions, and medication monitoring. **3.** Based on dosing in children. **4.** Do not crush, split, or chew. **5.** Generic only available. **6.** Amphetamine pro-drug.

**1.** Other non-stimulant pharmacotherapy options with limited/inconsistent evidence are desipramine, venlafaxine, desvenlafaxine, imipramine, modafinil, brexpiprazole, low-dose aripiprazole and low-dose risperidone, lamotrigine, armodafinil. **2.** Discontinue if presence of jaundice or symptoms of lab evidence of liver injury. **3.** Do not crush, chew, or split. **4.** No literature available to support doses above FDA maximum. **5.** Maximum daily dose for FDA-approved indications. **6.** For weight ≤ 45 kg initial dose is 0.05 mg QHS; titration is 0.05 mg/day every 2-3 days. **7.** For weight ≤ 45 kg initial dose is 0.5 mg and titration is 0.5 mg/day every 3-4 days. **8.** Doses of 400-450 mg are associated with best efficacy. **9.** Based on response and tolerability, may increase in 100 mg/day increments at intervals of 3 to 4 weeks up to 200 mg twice daily.

**KEY:** + Lower risk, ++ Some risk, +++ Higher risk; **BID** Twice daily; **DR** Delayed release; **ER/XL/XR** Extended release; **FDA** Food and Drug Administration; **GI** Gastrointestinal; **IR** Immediate release; **LA** Long acting; **SR** Sustained release; **QHS** At bedtime



# STIMULANT DIVERSION: STAY PATIENT-CENTERED AND VIGILANT

## Help Reduce Prescription Stimulant Diversion

- Share a patient provider agreement (PPA) with clearly established boundaries and patient expectations
- Check SCRIPTS Narx report at baseline and periodically
- Educate on safe med disposal and storage
- Obtain urine drug screens for all patients
- Utilize longer-acting stimulants or non-stimulants
- Screen for unintended stimulant medication effects (e.g., euphoria, elevated mood)

## Participate in Harm-Reduction Strategies

- Offer naloxone to patients using nonprescribed stimulants to protect the patient and show you care
- Warn patients about risks of fentanyl-laced counterfeit stimulant medications (e.g., Adderall®)
- Refer to a specialist if stimulant use disorder is suspected

## Warning Signs for Prescription Stimulant Misuse or Diversion

- Symptoms associated with heavier use or intoxication (e.g., agitation, psychosis, shortness of breath, palpitations, euphoria)
- A pattern of losing or early re-ordering of prescriptions
- SCRIPTS check identifies unexpected medication activity
- Urine drug screen contains unexpected result
- Misuse of other drugs (e.g., cocaine, alcohol)
- Non-oral use of stimulants

(Adapted with permission from Veterans Health Administration PBM Academic Detailing Service)

**A lethal dose of fentanyl was found in 7 out of 10 counterfeit pills seized by the FDA from the illegal drug market.**

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*The information contained in this summary is intended to assist primary care providers in the management of ADHD in non-pregnant adults in a primary care setting. This advice contains general recommendations and is advisory only. It is not intended to replace sound clinical judgment, nor should it be regarded as a substitute for individualized diagnosis, treatment, management, or overall care based on an individual patient's clinical conditions.*