IDENTIFYING AND TREATING ADULT ADHD

ALEXANRDA SANTIAGO, DO

1

- Navigate to https://aafp1.cnf.io/ and tap the session titled "Identifying and Treating Adult ADHD in Direct Primary Care"
- OR just point your phone's camera at the QR code to join directly

2

Activity Disclaimer

The material presented here is being made available by the DPC Summit for educational purposes only. Please note that medical information is constantly changing; the information contained in this activity was accurate at the time of publication. This material is not intended to represent the only, nor necessarily best, methods or procedures appropriate for the medical situations discussed. Rather, it is intended to present an approach, view, statement, or opinion of the faculty, which may be helpful to others who face similar situations.

The DPC Summit disclaims any and all liability for injury or other damages resulting to any individual using this material and for all claims that might arise out of the use of the techniques demonstrated therein by such individuals, whether these claims shall be asserted by a physician or any other person. Physicians may care to check specific details such as drug doses and contraindications, etc., in standard sources prior to clinical application. This material might contain recommendations/guidelines developed by other organizations. Please note that although these guidelines might be included, this does not necessarily imply the endorsement by the DPC Summit.

3

Disclosure Statement

It is the policy of the AAFP and ACOFP that all individuals in a position to control CME content disclose any relationships with ineligible companies upon nomination/invitation of participation. Disclosure documents are reviewed for potential relevant financial relationships. If relevant financial relationships are identified, mitigation strategies are agreed to prior to confirmation of participation. Only those participants who had no relevant financial relationships or who agreed to an identified mitigation process prior to their participation were involved in this CME activity.

All individuals in a position to control content for this activity have indicated they have no relevant financial relationships to disclose.

4

Learning Objectives

1. Identify common signs, clinical presentations, and comorbidities associated with attention-deficit/hyperactivity disorder (ADHD) in adults.
2. Apply validated screening and diagnostic tools to accurately diagnose adult ADHD and differentiate it from other medical and mental health conditions with overlapping symptoms.
3. Implement evidence-based treatment strategies for adult ADHD tailored to individual patient needs.

5

WHY ADULT ADHD MATTERS

- ADHD affects 4-6% of adults and many remain undiagnosed
- Significant impact on:
  - work performance
  - relationships
  - finances
  - physical health
  - mental health
- Increased risk of:
  - Anxiety
  - Depression
  - Substance use disorders
  - Motor vehicle accidents
- ADHD often presents differently in adults and is frequently missed

6

CASE PRESENTATION

Emily is a 26-year-old woman presenting for worsening anxiety and difficulty managing daily responsibilities.

- High-achieving student throughout childhood and high school
- Began struggling academically in college, required an extra year to graduate
- Diagnosed with anxiety and depression in college with minimal improvement on multiple antidepressants
- Currently home with her first child, reports worsening overwhelm and fatigue
- Complains of difficulty concentrating, chronic procrastination, forgetfulness, disorganization, and inability to complete tasks
- Feels anxious, irritable, and guilty about not accomplishing more

DPC SUMMIT

7

Live Content Slide

When playing as a slideshow, this slide will display live content

Poll: What diagnosis is most likely based on the information provided?

8

DIAGNOSIS - DSM-5 CRITERIA

- 5 or more symptoms of inattention or hyperactivity/impulsivity
- Symptoms developed before age 12
- Symptoms are present in 2 or more settings
- Symptoms must be present for at least 6 months
- Clear evidence that symptoms impair social, academic, or occupational functioning
- Symptoms are not better explained by another mental or physical health condition
- 3 Presentations: Inattentive, Hyperactive, or Combined

9

PRESENTATION - CORE SYMPTOMS

Inattention:

- Difficulty sustaining focus
- Easily distracted
- Careless mistakes
- Poor organization
- Does not listen when spoken to
- Loses items
- Forgetful
- Avoidance of lengthy tasks
- Does not follow through

Hyperactivity/Impulsivity:

- Restless
- Fidgets
- Always “on the go”
- Interrupts others
- Difficulty waiting
- Excessive talking
- Blurts out answers
- Impulsive decisions

10

PRESENTATION - EXECUTIVE DYSFUNCTION

- Perpetually late
- Procrastination (paralysis)
- Difficulty starting and completing tasks
- Poor prioritization and planning
- Time blindness
- Forgetful
- Difficulty switching attention
- Easily side-tracked due to impairment in self-inhibition

11

PRESENTATION - EMOTIONAL DYSREGULATION

- Adults with ADHD have problems with:
  - Self-monitoring of their emotions and level of arousal
  - Self-regulation of the intensity of their emotional reactions
- This is responsible for a large part of their social/work impairments
- Examples:
  - Little things bother them
  - Hard to “let things go”
  - Experience stronger emotional reactions and often act on their feelings
  - Negative emotions often distract persons with ADHD

12

PRESENTATION

DIFFERENTIAL:

- Anxiety disorders
- Mood disorders
- Sleep disorder/sleep deprivation
- Substance use
- Medication-induced cognitive impairment
- Medical (thyroid, diabetes, anemia)
- TBI
- Dementia
- Excessive work/life stressors

COMORBIDITIES:

- Mood disorders
- Anxiety disorders
- Substance use disorders
- Sleep disorders
- Personality disorders
- Learning disorders
- Conduct disorders

13

SCREENING

- **WHO:**
  - All patients with mood, anxiety, or substance use disorders
  - Family members of patients with ADHD
    - Strong genetic component
  - Every patient with “treatment-resistant depression”
- **HOW:**
  - Adult ADHD Self-Report Scale (ASRS)
    - ASRS v1.1 - 18 questions that correspond to the DSM diagnostic criteria
    - Expanded ASRS - 31 questions (original 18 + additional items assessing executive dysfunction and emotional dysregulation)

14

ASRS

Adult ADHD Self-Report Scale (ASRS-v1.1) Symptom Checklist

Patient Name		Today's Date					
Please answer the questions below, rating yourself on each of the criteria shown using the scale on the right side of the page. As you answer each question, place an X in the box that best describes how you have felt and conducted yourself over the past 6 months. Please give this completed checklist to your healthcare professional to discuss during today's appointment.			Never	Rarely	Sometimes	Often	Very Often
1. How often do you have trouble wrapping up the final details of a project, once the challenging parts have been done?							
2. How often do you have difficulty getting things in order when you have to do a task that requires organization?							
3. How often do you have problems remembering appointments or obligations?							
4. When you have a task that requires a lot of thought, how often do you avoid or delay getting started?							
5. How often do you fidget or squirm with your hands or feet when you have to sit down for a long time?							
6. How often do you feel overly active and compelled to do things, like you were driven by a motor?							
							Part A

- First 6 questions are used for screening
- 4 or more items in the abnormal range suggests patient may have ADHD
- To reduce false positives, ask patients to answer based on their "lifetime" (before depression/anxiety, etc)
- Negative screening does not 100% rule out ADHD

15

DIAGNOSIS IN PRIMARY CARE

- ADHD is diagnosed primarily by history
  - Ask about:
    - Childhood symptoms
    - Multiple settings
    - Functional Impairment
  - Tips:
    - Avoid leading questions
    - Ask for examples
    - Interview family members
- Use rating scales to aid diagnosis - ASRS, Wender Utah Rating Scale
- Evaluate for other mental health disorders
  - PHQ-9: Major Depressive Disorder
  - GAD-7: Generalized Anxiety Disorder
  - MDQ or CIDI: Mood disorder

16

DIAGNOSIS IN PRIMARY CARE

- Assess for substance use disorders
  - AUDIT-C: alcohol consumption
  - DAST: Drug Abuse Screen Test
  - Don't forget about nicotine, caffeine, and marijuana
- Assess for other medical conditions (thyroid, anemia, diabetes, sleep disorders, long-COVID)
  - Labs: CBC, TSH, Ferritin, A1c
  - STOP-BANG, Epworth Sleepiness Scale
- Review medications and supplements
- Request previous records

17

NEUROPSYCHOLOGICAL TESTING

- Routine use is not recommended for the diagnosis of ADHD by any practice guidelines (Bolea-Almanac et al., 2014; Kooij et al., 2018; NICE 2018).
  - Findings show a wide range of profiles - many false negatives and no correlation with functional impairments
  - Cannot reliably diagnose ADHD or differentiate from other conditions (Wasserman and Wasserman, 2012; Pettersson et al., 2018).
- Limited role:
  - Rule out comorbid learning disorders
  - To justify accommodations at school or work

18

CASE - ADDITIONAL HISTORY

- Child: rarely studied, completed assignments last minute, messy room/desk
- Current Examples:
  - My house is a mess because I can't bring myself to start basic tasks
  - I am always late and even forget appointments despite multiple calendars
  - I spend hours researching organizational tools but can't stick with anything
  - I avoid outings with other moms because I worry others find me rude
  - I have always felt like I am capable of more than I am accomplishing
- Husband reports: wife shops impulsively, does not listen during conversations, looses important objects (phone, keys)

19

CASE - ADDITIONAL HISTORY

- PMH: anxiety/depression, minimal improvement with SSRI/SNRIs
- FH: anxiety in mom, no known family history of ADHD
- Medications/supplements: multivitamin only
- Work/School: SAHM to 2 year-old
- Sleep: difficulty falling asleep since childhood, averages 6 hours
- Exercise: short walks with dog only
- Caffeine: 1-2 cups of coffee in the AM, energy drink in the afternoon
- Water: 48 oz
- Alcohol/Nicotine/Drugs/Marijuana: none

20

CASE - EVALUATION

- Expanded ASRS: 92 (severe)
- PHQ-9: 10 (mild/moderate) - sleep, fatigue, concentration
- GAD-7: 14 (moderate) - trouble relaxing, restless, irritable
- MDQ: negative
- STOP-BANG: 1 (low risk)
- Vitals: BP 115/72 | HR 75 | Height 64” | Weight 140 lbs
- LABS: CBC, CMP, TSH, Ferritin, HbA1c - all normal
- UDS 10 panel: negative

21

Live Content Slide

When playing as a slideshow, this slide will display live content

Poll: Now what do you think is the most likely diagnosis?

22

CASE - DIAGNOSIS

ADHD predominately inattentive subtype

- Task avoidance, always late, forgetful, does not listen, interrupts others, impulsive, poor organization
- Childhood symptoms
- Significant functional impairment in multiple settings
- GAD-7 and PHQ-9 mildly positive but main symptoms overlap with ADHD
  - No improvement on SSRI/SNRIs in the past
- No other significant medical hx, lifestyle factors, or substance use which would better explain symptoms

23

TREATMENT OVERVIEW

- **Stimulants:** amphetamines and methylphenidates
- **Nonstimulants:** atomoxetine, viloxazine, bupropion, guanfacine, clonidine
- **Behavioral:**
  - CBT/MCT - most effective for executive dysfunction
  - Organizational systems, time blocking, task chunking
- **Lifestyle:**
  - Sleep - at least 8 hours of good quality, consistent sleep
  - Diet, Exercise, Stress Management
  - Screen Management
  - Minimize substance use (alcohol, cannabis, caffeine, nicotine)

24

STIMULANTS

- First-line pharmacologic treatment for ADHD
  - Amphetamines may be more effective in adults but less tolerated
  - Methylphenidates may have slightly less risk for diversion/abuse
- Side Effects
  - Physical: HA, GI, dry mouth, anorexia, tics, increase BP/HR, QTc prolongation
  - Psychologic: anxiety, irritability, insomnia, compulsivity, abuse, psychosis
- Contraindications:
  - Unmanaged mood disorder or psychosis
  - Uncontrolled HTN, cardiac disease, hyperthyroidism, untreated glaucoma
  - Active cannabis or other substance abuse disorder

DPC SUMMIT

25

BENEFITS OF STIMULANT TREATMENT

Stimulant treatment is not only very effective for the core symptoms of inattention, hyperactivity, and impulsivity but is also shown to reduce the risk of:

- Premature death
- Motor vehicle accidents
- Substance use disorders
- Depression
- Suicidal behavior
- Criminal convictions

DPC SUMMIT

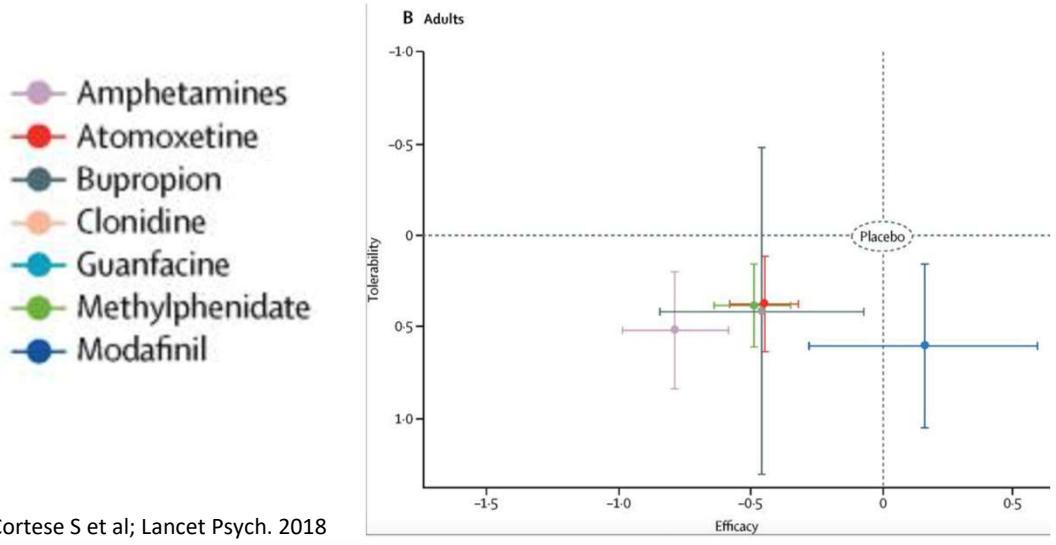
26

NON-STIMULANTS

- Advantages:
  - No abuse potential
  - Not a controlled substance - easier to prescribe
  - Longer acting - works 24 hours/day
  - May be preferred in patients with bad anxiety
  - Do not worsen tics
- FDA approved - Atomoxetine (Strattera), Viloxazine (Qelbree)
  - Selective NE reuptake inhibitors
- Off-label - Bupropion, Guanfacine, Clonidine

27

MEDICATION COMPARISON



Cortese S et al; Lancet Psych. 2018

28

TREATMENT SELECTION

- Treat condition causing the most severe functional impairment first
- No comorbidity/contraindications —> Start with long-acting stimulant
  - ER Advantages: Convenient, better adherence, less abuse, less crash
  - Amphetamines slightly favored over methylphenidates in adults
  - If one group is not effective —> try the other group
- Concern for abuse —> Lisdexamfetamine, Azstarys, non-stimulant
- Significant anxiety —> Atomoxetine
- Comorbid depression —> Bupropion

29

Live Content Slide

When playing as a slideshow, this slide will display live content

Poll: Which medication would you choose to start Emily on?

30

CASE - TREATMENT

- Vyvanse 20-30 mg once daily in the morning
  - Take medication with protein to minimize side effects and extend duration
  - Switch multivitamin to evening
  - Decrease caffeine and increase water intake
- Set clear goals and expectations - what are we treating
- Sign controlled substance agreement

31

MONITORING

- Check HR/BP and weight before starting medication, before/after dose change, and every 3-6 months
- At follow-ups track:
  - Symptom improvement - personal examples, rating scales (ASRS)
  - Function - work/school performance, social impacts, relationships, etc
  - Side effects - sleep, appetite, mood
- Check PDMP every fill
- UDS 1x/year

32

COMBINATION THERAPY

- Only 50% of patients get full improvement in ADHD symptoms on monotherapy
  - Additional medication or non-pharmacological intervention is often needed
- Executive dysfunction —> skills/habit training through CBT or metacognitive therapy is most helpful
- Stimulant + atomoxetine —> good option in patients who are not able to tolerate full dose of either medication
  - Atomoxetine can help with the effects of the stimulant wear off early
  - Beneficial when tolerance has developed to the stimulant
- Stimulant + guanfacine —> may reduce CV side effects, insomnia, weight loss
- Stimulant + bupropion —> good for comorbid depression

33

TOLERANCE?

- Alternative explanations are more likely than true tolerance
  - Unrealistic expectations
  - Normal decline in energy and mood benefits can be misinterpreted as loss of efficacy
  - External factors - lack of sleep, increased stress or load on mental resources
- Evaluation tips:
  - Ask specific questions - which symptoms, duration, etc
  - Ask about external factors - sleep, diet, supplements, medications, stress, exercise, schedule changes, etc
- True tolerance only develops in a small percentage of patients
  - Options: Increase dose, change stimulant class/formulation, add on non-stimulant
- Executive dysfunction —> skills/habit training through CBT or MCT is most helpful

34

TAKEAWAYS

- Adult ADHD is common and frequently missed
- Executive dysfunction is often the most impairing symptom in adults
- ADHD is diagnosed by history—not testing
- Stimulants are highly effective when appropriately prescribed
- Medication works best when combined with skills and systems
- Closely monitor patients to ensure treatment goals are met and to prevent abuse/diversion

35

Live Content Slide

When playing as a slideshow, this slide will display live content

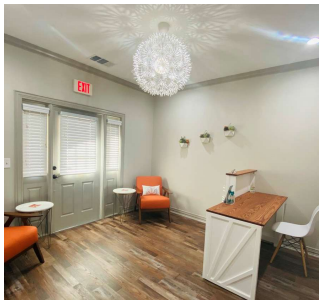
Social Q&A for Identifying and Treating Adult ADHD in Direct Primary Care

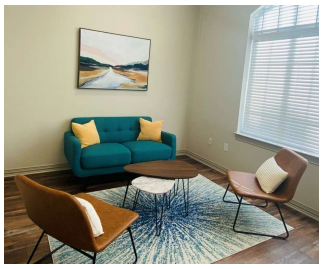
36

QUESTIONS?

Contact Information
Dr. Alexandra Santiago
drsantiago@brighthealthmed.com
www.brighthealthmed.com

BrightHEALTH
FAMILY MEDICINE & WELLNESS





DPC SUMMIT

37

REFERENCES

Bolea-Alamañac B, Nutt DJ, Adamou M, et al; British Association for Psychopharmacology. Evidence-based guidelines for the pharmacological management of attention deficit hyperactivity disorder. J Psychopharmacology. 2014 Mar;28(3):179-203. doi: 10.1177/0269881113519509. PubMed PMID: 24526134.

Pettersson R, Söderström S, Nilsson KW. Diagnosing ADHD in Adults: An Examination of the Discriminative Validity of Neuropsychological Tests and Diagnostic Assessment Instruments. J Atten Disord. 2018 Sep;22(11):1019-1031. doi: 10.1177/1087054715618788. Epub 2015 Dec 17. PubMed PMID: 26681530.

Wasserman T, Wasserman LD. The Sensitivity and Specificity of Neuropsychological Tests in the Diagnosis of Attention Deficit Hyperactivity Disorder, Applied Neuropsychology: Child, 2012:1:2, 90-99.

DPC SUMMIT

38

39

MEDICATIONS FOR ADHD IN ADULTS

NONSTIMULANTS:

Generic Name	Brand Name	MOA	Notes
Atomoxetine	Strattera	Selective NE reuptake inhibitor	Start 25 mg/day BID dosing best tolerated 3 month trial Better response if treatment naive
(Viloxazine)	**Qelbree**	Selective NE reuptake inhibitor	Additional serotonergic effects —> better mood and emotional regulation
Guanfacine ER	Intuniv	Central alpha 2a receptor agonist	Off-label for adults 2-6 mg daily (AM or PM) Less sedating than clonidine Do not take with high-fat meal
Wellbutrin	Buproprion	Norepinephrine-Dopamine Reuptake Inhibitor	Treat comorbid MDD/nicotine dependence Limit to 300 mg if on stimulant (risk of seizures)

AMPHETAMINES:

- Dextroamphetamine (d-AMP): more potent, effects a broader range of symptoms, fewer CV effects
- Levoamphetamine (l-AMP): longer half-life, possibly less appetite suppression

Generic Name	Brand Name	Composition	Duration	Notes
Mixed Amphetamine Salts	Adderall IR	75% d-AMP	4-6 hrs	
Dextroamphetamine	Zenzedi	100% d-AMP	4-6 hrs	
Racemic Amphetamine	Evekeo	50% d-AMP	4-6 hrs	↑l-AMP —> longer duration
Dextroamphetamie SR	Dexedrine Spansules	100% d-AMP 50% IR / 50% ER	6-8 hrs	May cause less anxiety and CV side effects
Mixed Amphetamine Salts ER	Adderall XR	75% d-AMP 50% IR / 50% ER	8-10 hrs	Cost effective ER option for adults
Amphetamine ER ODT	Adzenys XR ODT	75% d-AMP 50% IR / 50% ER	9-12 hrs	Blister pack w/6 tabs Slightly quicker onset (45 mins)
Lisdexamfetamine	Vyvanse	Prodrug 100% d-AMP + lysine	10-12 hrs	Lowest abuse potential Not affected by antacids FDA - Binge-eating disorder
Triple-bead mixed amphetamine salts	Mydayis	75% d-AMP 33% IR / 66% ER	12-16 hrs	1 IR bead and 2 ER beads (release at 4 + 8 hrs)

METHYLPHENIDATES:

- Methylphenidate: 50/50 racemic mixture of d- and l- isomers
- Dexmethylphenidate: d-isomer only (pharmacologically active component) —> more potent

Generic Name	Brand Name	Composition	Duration	Notes
Methylphenidate	Ritalin		3-4 hrs	BID - TID dosing, early peak
Dexmethylphenidate	Focalin IR		4-6 hrs	Not affected by food, early peak
Methylphenidate ER Biphasic 50-50	Ritalin LA	50% IR / 50% ER	6-8 hrs	Bimodal release (2 peaks)
Methylphenidate ER Biphasic 30-70	Metadate CD	30% IR / 70% ER	8 hrs	Bimodal release Strong early peak
Dexmethylphenidate ER	Focalin XR	50% IR / 50% ER	8-10 hrs	Bimodal release Rapid onset of action (30 mins)
Methylphenidate ER 24 hours	Concerta	OROS delivery	10-12 hrs	Slower onset (1 hour) More consistent (low peak)
Methylphenidate Patch	Daytrana	ER patch	10-12 hrs	Off-label in adults 2 hours for onset, late peak
Methylphenidate ER Biphasic 40-60	Aptensio XR	40% IR / 60% ER	10-12 hrs	Bimodal release Intermediate onset (45 mins)
(Methylphenidate HCL ER)	**Jornay PM**	Dual-action MPH (DR + ER)	12-14 hrs	Delayed release - onset 10 hrs later Peak at 14 hours
(Serdexmethylphenidate /d-methylphenidate)	**Azstarys**	70% SDX (prodrug) + 30% d-MPH	10-12 hrs	Similar to Vyvanse (prodrug) - lower abuse potential