



# Where has all the Adderall Gone? Psychostimulants for the Non- Psychiatrist

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# Objectives

1

Understand the evaluation of Adult ADHD

2

Understand the treatment of Adult ADHD

3

Understand the appropriate use of psychostimulants

TABLE. Percentage of persons aged 5–64 years with at least one stimulant prescription fill, by sex, age group, calendar year, average annual percent change (2016–2020), and annual percent change (2020–2021) — MarketScan commercial databases, United States, 2016–2021



Sex and age group, yrs	Percentage, by year						Average annual % change,* 2016–2020	Annual % change,* 2020–2021
	2016	2017	2018	2019	2020	2021		
Sample size (millions)	20.7	19.0	17.4	16.0	15.6	13.3	—	—
Both sexes, all ages	3.6	3.7	3.6	3.7	3.8	4.1	1.4	7.9
Male, all	3.9	4.0	4.0	4.0	4.0	4.2	0.6	5.0
5–9	7.3	7.3	7.0	7.1	6.8	6.7	-1.7	-1.5
10–14	10.8	10.9	10.6	10.7	10.2	9.9	-1.4	-2.9
15–19	7.9	7.8	7.5	7.4	7.2	7.1	-2.3	-1.4
20–24	5.6	5.5	5.2	5.0	4.8	5.0	-3.8	4.2
25–29	4.0	4.1	4.1	4.1	4.2	4.7	1.2	11.9
30–34	3.4	3.6	3.8	3.9	4.1	4.7	4.8	14.6
35–39	2.7	2.9	3.0	3.3	3.4	3.9	6.0	14.7
40–44	2.1	2.2	2.3	2.5	2.7	3.0	6.5	11.1
45–49	1.7	1.8	1.9	2.1	2.1	2.3	5.5	9.5
50–54	1.3	1.4	1.4	1.5	1.6	1.8	5.4	12.5
55–59	1.0	1.0	1.1	1.1	1.2	1.3	4.8	8.3
60–64	0.9	0.9	0.9	0.9	0.9	0.9	0	0

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Sex and age group, yrs	Percentage, by year						Average annual % change,* 2016–2020	Annual % change,* 2020–2021
	2016	2017	2018	2019	2020	2021		
Female, all	3.2	3.3	3.3	3.4	3.6	4.1	3.0	13.9
5–9	3.0	3.0	2.9	2.9	2.9	2.9	–0.8	0
10–14	4.8	4.9	4.7	4.8	4.8	5.2	0	8.3
15–19	5.3	5.2	4.9	5.1	5.3	6.1	0.1	15.1
20–24	5.6	5.5	5.2	5.1	5.2	6.2	–1.8	19.2
25–29	4.2	4.4	4.4	4.5	4.6	5.4	2.3	17.4
30–34	3.5	3.8	3.9	4.1	4.4	5.1	5.9	15.9
35–39	3.1	3.4	3.5	3.7	4.0	4.7	6.6	17.5
40–44	3.0	3.1	3.1	3.3	3.5	4.0	4.0	14.3
45–49	2.6	2.8	2.9	3.0	3.2	3.5	5.3	9.4
50–54	2.1	2.2	2.2	2.4	2.5	2.9	4.5	16.0
55–59	1.6	1.7	1.7	1.8	1.9	2.0	4.4	5.3
60–64	1.2	1.3	1.3	1.4	1.4	1.5	4.0	7.1

# Diagnosing ADHD in an Adult

Initial  
Assessment

Symptom  
Evaluation

Medical  
Examination

Psychological  
Evaluation

Collateral  
Information

Diagnostic  
Criteria

Differential  
Diagnosis

Treatment  
Plan

# Initial Assessment

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- Why Now?
- Is their history in agreement with:
  - Medical Record
  - PMP
- Are they interested in symptom reduction or just medication



# Symptoms of ADHD

Inattention

Hyperactivity

Impulsivity

# Symptoms of ADHD

## Inattention

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Paying	close attention to details or making seemingly careless mistakes at work or during other activities
Sustaining	attention for long tasks, such as preparing reports, completing forms, or reviewing lengthy papers
Listening	closely when spoken to directly
Following	instructions and finishing duties in the workplace







# Symptoms of ADHD Inattention

- Organizing tasks and activities and managing time
- Engaging in tasks that require sustained attention
- Losing things such as keys, wallets, and phones
- Being easily distracted by unrelated thoughts or stimuli
- Being forgetful in daily activities, such as paying bills, keeping appointments, or returning calls

# Symptoms of ADHD Hyperactivity and Impulsivity

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- Experiencing extreme restlessness, difficulty sitting still for extended periods, and/or wearing others out with one's activity
- Fidgeting with or tapping hands or feet or squirming in seat
- Being unable to engage quietly in leisure activities
- Talking excessively
- Answering questions before they are asked completely
- Having difficulty waiting one's turn, such as when waiting in line
- Interrupting or intruding on others





# Medical Examination

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- Focused on ruling out other causes
  - Medical Conditions
  - Substances

Medical  
Causes of  
ADHD  
Symptoms

Thyroid dysfunction

Major Depressive Disorder

Bipolar Disorder

Anemia

# Substances that Impair Attention

- Any depressant
- Stimulants in certain situations
- Common offenders:
  - Marijuana
  - Opioids
  - Benzodiazepines



# Psychological Evaluation

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- May include assessments or testing
- Examines:
  - Cognitive abilities
  - Attention
  - Executive functioning



# Rating Scales

Childhood Symptom Scale

Wender Utah Rating Scale

Adult ADHD Rating Scale-IV

Brown Attention-Deficit Disorder Rating Scale and Diagnostic Form

Connors Adult ADHD Rating Scales

Current Symptoms Scale by Barkley and Murphy

Wender-Reimherr Adult Attention-Deficit Disorder Scale

Childhood Symptom Scale

Retrospective assessment of 18 DSM IV criteria

Also Includes:

- Functional disabilities
- Oppositional Defiant Disorder
- Conduct Disorder



# Wender Utah Rating Scale

Retrospective assessment  
of childhood ADHD  
symptoms from ages 8-10

2 Versions:

- Regular (61 questions)
- Short (25 questions)

# Adult ADHD Rating Scale-IV

Has a long version and a quick screen

Originally designed for children and adolescents

Used successfully in adults

# Brown Attention-Deficit Disorder Rating Scale and Diagnostic Form

Asks about:

- Clinical history
- Early schooling
- Family history
- Physical health
- Substance use
- Sleep habits

Also gathers data from observer/significant other

40 questions

Focuses mostly on inattention

# Connors Adult ADHD Rating Scales

3 versions:

- Screening
- Short
- Long

Self and Observer reports

8 Scales

# Connors Adult ADHD Rating Scales

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- Allows for ADHD by DSM IV Criteria and by measuring emotional lability
- Good interrater reliability between self report and physician rating

# Current Symptoms Scale by Barkley and Murphy

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- Self report scale of 18 symptoms corresponding to DSM IV criteria

Wender-  
Reimherr  
Adult  
Attention-  
Deficit  
Disorder  
Scale

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Measures severity  
of symptoms using  
Utah criteria

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Useful to assess  
mood lability  
symptoms

# Collateral Information

Helpful to have supporting information from the individual that has it

Very important to ask for specific metrics

“What do you notice most?”

Consider asking them to keep track



# Diagnostic Criteria

All of the symptoms are considered for criteria

As a general rule, you should assign a symptom to only one criteria of one mental condition

i.e. Trouble concentrating can be MDD, GAD, or ADHD

- Assign the symptom to the condition that you think is contributing to it the most.

# Adult ADHD

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- ADHD is a disorder that begins in childhood
- Adults with ADHD experience symptoms prior to the age of 12
- Must have 5 symptoms
- Must be present in two or more settings



# Differential Diagnosis

## Mental Conditions

- MDD
- GAD
- PTSD
- Personality Disorder

## Medical Conditions

## Malingering/Nefarious causes

# Treatment Plan



What is the patient's goals

Should be measurable



What is the patient's past history?



Absolutely should use a controlled substance contract



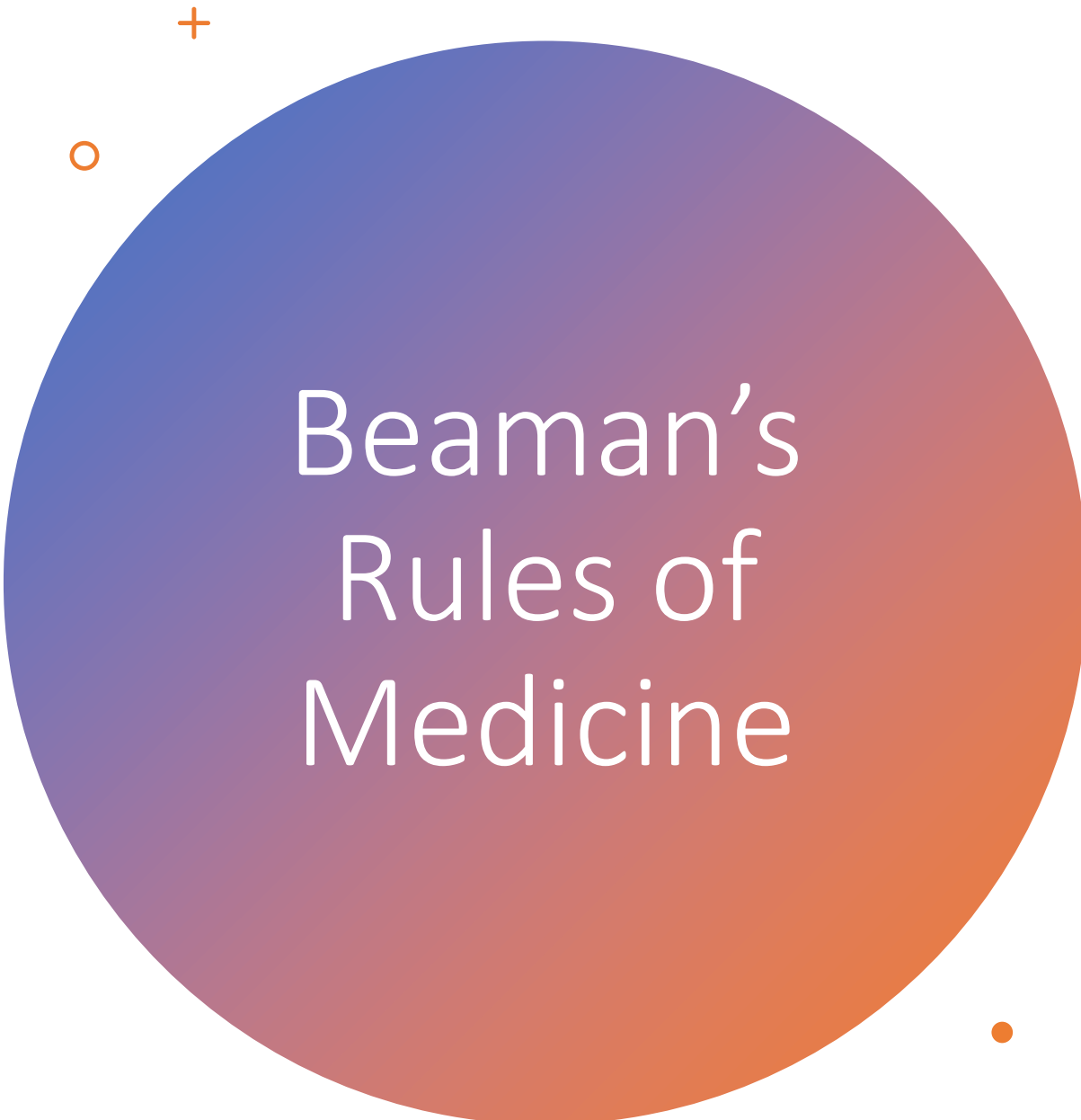
Plan should include monitoring for diversion

Treatment


Stimulants

Non-stimulants

Antidepressants



# Beaman's Rules of Medicine

1. Patients should not die because they go to the doctor
  2. Patients should not become addicted because they went to the doctor
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# Stimulants: Amphetamines

Immediate release dextroamphetamine

Immediate release  
dextroamphetamine/amphetamine (Adderall)

Extended release  
dextroamphetamine/amphetamine (Adderall XR)

Lisdexamfetamine (Vyvanse)

Stimulants:  
Methylphenidate

Immediate release

- Ritalin

Extended release

- Concerta



# Nonstimulants

## Atomoxetine

- Strattera

\*First line treatment when concerned about drug abuse

## Guanfacine

- Intuniv

## Antidepressants

### Bupropion

- Wellbutrin

### Desipramine (TCA)

- Norpramin



Medication  
Strategies

Start low dose

Titrate monthly to  
functionality

Each medication has its  
own side effect profile

# Medication Strategies



REMEMBER THAT ALL TREATMENT  
DECISIONS ARE RISK/BENEFIT



MAY BE MORE BENEFIT BASED ON  
OCCUPATION



MAY BE MORE RISK BASED ON  
BACKGROUND

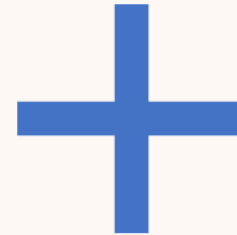
# Medication Strategies



Risk/Benefit Equation is constantly changing



Need monitoring for diversion/dependence/addiction



Always check function!

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Monitoring

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Urine Drug Screens

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PMP

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Pill Counts

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Refill timing

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Behavior

# Drug Testing

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- Screening
  - Immunoassay
  - Lots of false positives
- Mass Spectroscopy
  - Confirmatory
  - Relatively no alternative explanation for a substance to be present



# Urine Drug Screens

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- Should be done at first visit
- Should be done frequently in the beginning of treatment
- Should be done routinely after
- All patients tested the same

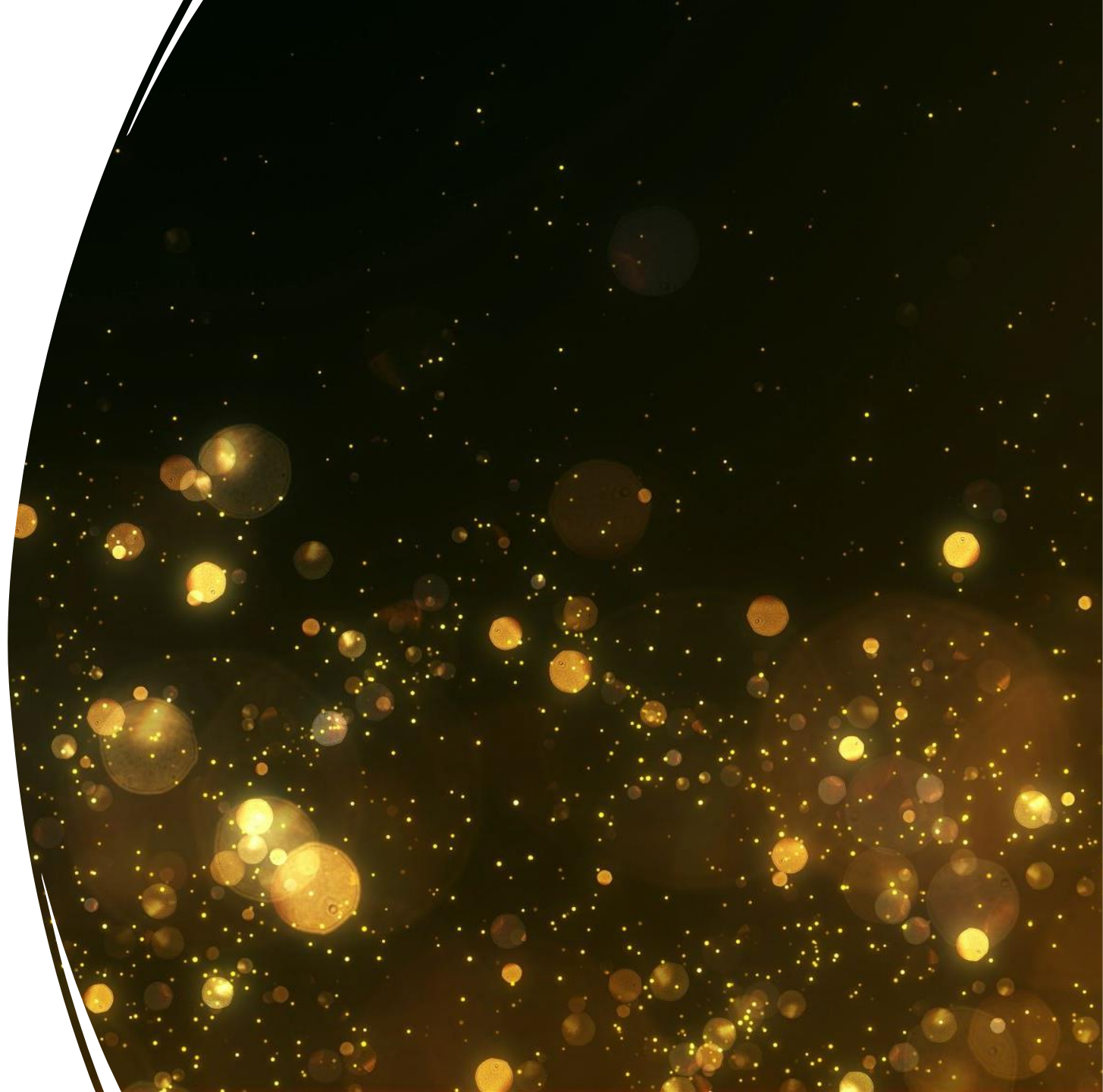




# Abnormal Urine Drug Screens

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- Inconsistent Positive
  - Positive for something it should not be
- Inconsistent Negative
  - Negative for something it should be positive for



# Inconsistent Positive

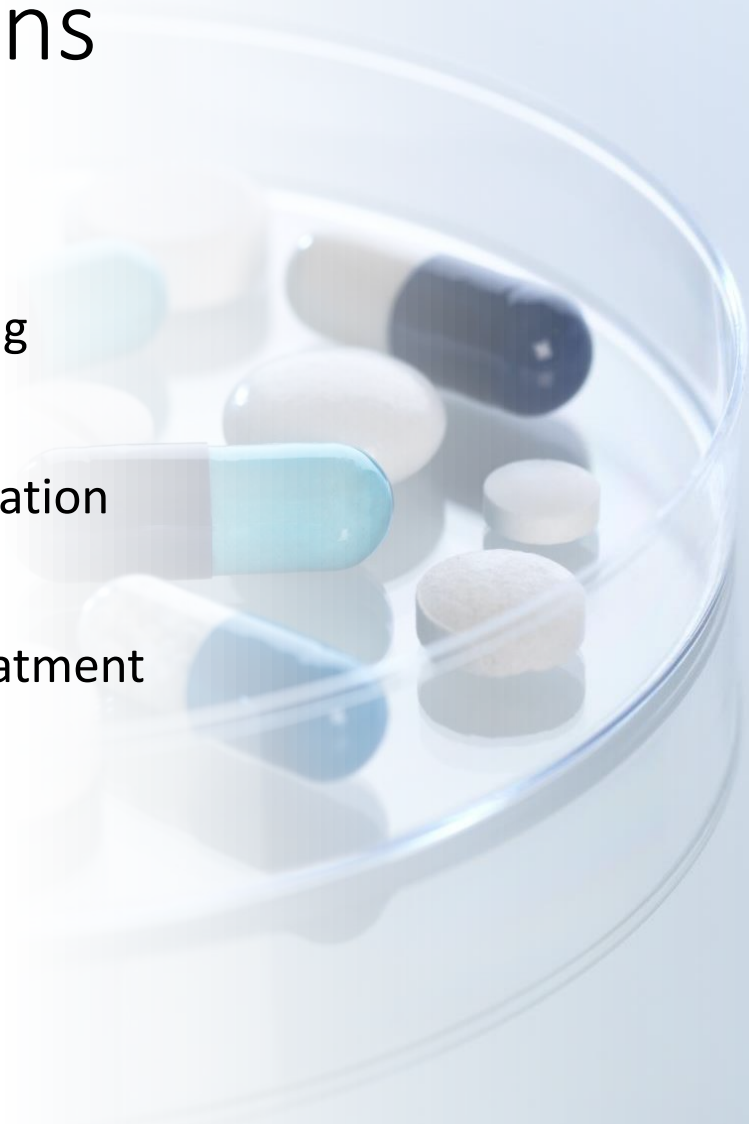
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- Have to acknowledge and have to do something
- Ask yourself how the substance can be contributing to the symptoms
- Are you abiding by the Hippocratic Oath



# Inconsistent Positive Options

- More frequent monitoring
- Discontinuation of medication
- Referral to substance treatment



# Inconsistent Negative

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- Huge Red Flag
- Should consider immediate cessation
- You cannot knowingly contribute to diversion



# Prescription Monitoring Program

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- Should be checked at every visit
- Adherence to controlled substance contract
- Violations need to be addressed in the chart



# Pill Counts

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- Can verify adhering to prescription instructions
- Can be done at your office or at a local pharmacy
- Should be random but flexibility is important



# Aberrant Behaviors

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- Driving the conversation toward controlled substances
- Demanding
  - Certain medications
  - Higher doses
- Refusal to participate in alternative treatment or diagnostics
- History of diversion



# What about marijuana?

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- Absolute no
- Marijuana causes inattention
- The appropriate first step is to stop the offending agent
- Both are addicting and mind-altering





# Conclusion

ADHD requires an accurate objective diagnosis

Stimulants should not be first line and should be very cautiously

Documentation and monitoring are paramount to avoid patient harm and physician liability



**Questions?**

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