ADHD Pharmacotherapy: Stimulant Use and Abuse

A Clinical Perspective
Thor C. Bergersen, M.D.

Complex Patients

- Rarely do people fit into categorical boxes
- Constellation of symptoms is the norm
- ADHD is frequently comorbid
- Treat symptoms, not disorders

ADHD the Chameleon

- Can look like Bipolar Disorder
- Can present with depression
- Can present with anxiety or OCD symptoms
- Can exist in objectively successful people
- Substance use often confounding factor

ADHD and Substance Use

- Dopamine and reward dependence
- Stimulation seeking behavior
- Concept of “self medicating”
- Alcohol, marijuana and nicotine are the drugs of choice for those with ADHD
- Use should not preclude treatment

Coexisting Symptoms

- Perfectionism and ADHD
- Anxiety and ADHD
- OCD like symptoms with ADHD
- Depression and ADHD
- Mood lability and ADHD

Evaluation

- Interview and history
- Checklists
- Neuropsychological Testing
- Quotient Evaluation
- NEBA (EEG diagnostic tool)
- Drug screen
### Precautionary Measures
- Require past medical records
- Contact all previous providers
- Prescription monitoring program (MA)
- Beware of specific medication requests
- When in doubt, speak with pharmacist

### Practical First Steps
- Sleep (usually not enough)
- Diet (often designed for convenience)
- Exercise (if not, start)
- Substance use (or abuse)

### Therapy and Coaching
- Practical and goal directed
- Augments pharmacotherapy
- Provides strategies and organization
- Long term benefits
- Often not possible

### Rationale for Treatment
- Dopamine (DA) or norepinephrine (NE)
- Excessive DA or NE reuptake in prefrontal cortex usually the issue
- Genetic vs environmental influences
- Improving quality of life is the goal

### Tool for Focus
- Eyeglasses for your brain metaphor
- It’s not cheating, just leveling the field
- You don’t “need” to take this medication
- No judgment, just help

### “De-Pathologize”
- What we call ADHD is a set of traits
- People with ADHD can focus/hyperfocus
- Attention Regulation Disorder more accurate
- Unique among psychiatric conditions, impairment is situation dependent
Correct Diagnosis = Low Abuse
- People with ADHD are unlikely to abuse
- Stimulants = focus and desire to work
- Most with ADHD would rather not take stimulants during time off
- Very few request early refills

Stimulant Rx: The Ideal Patient
- Meets diagnostic criteria
- No comorbid diagnosis
- No substance abuse
- Not asking for anything
- Medical history is available

The Less Than Ideal Patient
- No medical or psychiatric history
- Some history but refuses access
- Evasive regarding substance use
- Specific medication requests
- Personality disorder

High School and College
- Higher abuse potential
- More likely to sell for $
- Advise patients to keep meds safe
- Enforce no early refills
- Emphasize sleep and nutrition

Current Substance Use
- Discuss health risks with stimulants
- Marijuana and ADHD do not mix
- Cocaine and stimulants “deadly”
- MDMA, meth + stimulants very bad
- Excess alcohol counterproductive

Amphetamines
- Generic mixed amphetamine combo
- Adderall XR (also recently generic)
- Dextroamphetamine (tablet vs. spansule)
- Vyvanse (lysdextroamphetamine)
- Procentra (liquid dextroamphetamine)
<table>
<thead>
<tr>
<th>Amphetamine Doses</th>
<th>Methylphenidate (MPH)</th>
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<tbody>
<tr>
<td>• generic amphetamine: 5 to 20mg bid</td>
<td></td>
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<tr>
<td>• Adderall XR: 10 to 30mg/d</td>
<td></td>
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<tr>
<td>• Dextroamphetamine: 5 to 15mg bid</td>
<td></td>
</tr>
<tr>
<td>• Vyvanse: 20 to 70mg/d</td>
<td></td>
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<tr>
<td>• Procentra = 5mg/5ml</td>
<td></td>
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<tr>
<td>• Generic</td>
<td></td>
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<tr>
<td>• Ritalin LA</td>
<td></td>
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<tr>
<td>• Concerta (now generic)</td>
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<tr>
<td>• Metadate CD (also generic)</td>
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<tr>
<td>• Focalin XR (dexamphetamine)</td>
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<td>• Quillivant (MPH liquid long acting)</td>
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<thead>
<tr>
<th>Methylphenidate Dose</th>
<th>Stimulant Side Effects</th>
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<tbody>
<tr>
<td>• IR MPH: 5 to 20mg up to tid</td>
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<tr>
<td>• Ritalin LA: 10 to 40mg/d</td>
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<tr>
<td>• Metadate CD: 10 to 40mg/d</td>
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<tr>
<td>• Concerta: 18 to 72mg/d</td>
<td></td>
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<tr>
<td>• Focalin XR: 5 to 40mg/d</td>
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<tr>
<td>• Dexamphetamine: 2.5 to 10mg up to tid</td>
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<tr>
<td>• Quillivant – 25mg/5ml</td>
<td></td>
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<tr>
<td>• Appetite Suppression</td>
<td></td>
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<tr>
<td>• Insomnia</td>
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<tr>
<td>• Anxiety</td>
<td></td>
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<td>• Mood changes</td>
<td></td>
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<tr>
<td>• Peripheral vasoconstriction</td>
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<tr>
<td>• Sympathetic activation</td>
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<table>
<thead>
<tr>
<th>Stimulant Abuse Potential</th>
<th>Signs and Symptoms of Abuse</th>
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<tbody>
<tr>
<td>• Greater with IR forms (tablets)</td>
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<tr>
<td>• Increasing dose/tolerance a risk factor</td>
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<td>• Early refill request pattern (excuses)</td>
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<tr>
<td>• Doctor shopping (prescription monitoring)</td>
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<tr>
<td>• Concurrent medications or substance use</td>
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<tr>
<td>• Medication lost or stolen</td>
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<td>• Weight loss</td>
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<td>• Job loss or academic collapse</td>
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<tr>
<td>• Urgency when requesting refills</td>
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<td>• Secrecy regarding previous/current providers</td>
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Combination Treatment

- Stimulant and SSRI's
- Stimulant and mood stabilizer
- Stimulant and bupropion
- Benzodiazepine and stimulant
- Amantadine and stimulant
- L-methylfolate and stimulant

Treatment Algorithm

ADHD & Stimulants

- Patient education is important
- Be alert to signs and symptoms of abuse
- Stimulants + substance use = problem
- Encourage patients to be honest with regard to use vs. abuse and substance use

Summary

- ADHD is a multifaceted entity
- It can be disguised in many ways
- Potential for abuse is always present
- Symptoms (and side effects) are the guide to treatment

Thank you and Discussion

- Q & A

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