Steven Pliszka, M.D. is Chair of the Department of Psychiatry of the University of Texas Health Science Center at San Antonio. He has been a faculty member at UTHSCSA since 1986, joining the Department of Psychiatry after completing his general and child adolescent psychiatry residencies at UTHSCSA. Throughout his career he has been involved in a wide range of administrative, research, clinical and educational activities. Prior to being Chair he served as Chief of the Division of Child and Adolescent Psychiatry from 1995-2015. His research has focused on Attention Deficit Hyperactivity Disorder (ADHD) and related disorders. He has been involved with clinical trials of the most medications used for ADHD. He currently uses functional magnetic imaging to try to understand the mechanisms of action of treatments for ADHD. He has been involved in several projects to integrate mental health services into pediatric primary care. Dr. Pliszka is the author of “Neuroscience for the Mental Health Clinician” and “Treating ADHD and Comorbid Disorders (Guilford Press). He has been very active in the American Academy of Child and Adolescent Psychiatry, authoring the academy’s practice parameters for the diagnosis and treatment of ADHD in 2007. Dr. Pliszka has an active clinical practice, caring for many children and adolescents with ADHD and other psychiatric disorders; he also serves as the attending psychiatrist for two residential facilities for children with severe behavioral and emotional disorders.

Disclaimer: Dr. Pliszka has indicated he has no relevant financial relationship to disclose.

To download this handout go to: http://www.winston-sa.org/syllabus
Diagnosis and Treatment of ADHDDiagnosis and Treatment of ADHDDiagnosis and Treatment of ADHDDiagnosis and Treatment of ADHDDiagnosis and Treatment of ADHDDiagnosis and Treatment of ADHDDiagnosis and Treatment of ADHDDiagnosis and Treatment of ADHDDiagnosis and Treatment of ADHDDiagnosis and Treatment of ADHDDiagnosis and Treatment of ADHD

Steven R. Pliszka, M.D.
Professor and Chair
Department of Psychiatry
The University of Texas Health Science Center at San Antonio

Disclosures

• Research support
  – Ironshore
• Consultant
  – Ironshore

Making the diagnosis

• Unfounded fears
  – An occult medical diagnosis might masquerade as ADHD
  – Missing an underlying psychiatric disorder
    • Depression
    • Mania
    • Psychosis
  – Contributing to the “overuse” of medication
  – Forgetting that common diseases occur commonly

27th Annual Learning Symposium
The Winston School San Antonio
Making the diagnosis

- Should never take more than an hour, can be done in 30 minutes with proper preparation (not including note writing)
- You have the advantage of knowing the family and child (in many cases)
- When brought up in follow up visit, give rating scales for home and school and schedule 30 minute follow up
- When parent call in with complaint of ADHD, give script to office staff- send rating scales to home, when returned, schedule parent

Interviewing the parent

- Review the rating scales from home and school. Look at report card, behavior chart if scales not available
- “I see there are a lot of sx of inattention and/or impulsivity” -
  - When did they start? (DSM-5 allows onset by age 12)
  - Nearly every day?
  - Impairment school and home?
- Redirect extensive “Story telling”

Interviewing the parent

- Academics
  - Grades may not be impaired in early grades
  - Learning disability vs. ADHD
    - Psychological evaluation is NOT required for a diagnosis of ADHD
    - Inconsistent with Learning disability
      - He can do it (school work) when he wants to
      - Able to do work when one on one
    - LD does not masquerade as ADHD (particular impulsivity)
    - Only when ADHD is treated can true cognitive ability be assessed
Ruling out MAJOR comorbidities

- Minor depression/anxiety are common in ADHD and are NOT a contradiction to stimulant treatment
- Many ADHD children discouraged about their lives, this gets better with treatment
- Questions to ask about depression/anxiety
  - How often does it occur, (daily, weekly rarely)?
  - How long does it last?
  - What does he/she talk about?
  - Self esteem issues?

Comorbidity

<table>
<thead>
<tr>
<th>Major depressive disorder</th>
<th>Demoralization/Emotional lability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sad/Irritable/Depression 3-5 times per week for at least an hour</td>
<td>Intermittent sadness or anger</td>
</tr>
<tr>
<td>Chronic low self esteem</td>
<td>Tied to frustration</td>
</tr>
<tr>
<td>Suicidal ideation/plan outside of anger outbursts</td>
<td>Brief threats of self harm that resolve when calm</td>
</tr>
<tr>
<td>Neurovegetative signs</td>
<td>No neurovegetative signs except difficulty falling asleep.</td>
</tr>
</tbody>
</table>

Interview with child

- In young child, focus on depression and anxiety rather than the ADHD
- Ask concrete questions, quantify
- Sad/Happy- Like self/don’t like self- hurt self wish dead- suicide
- Rules- how parent's punish- fair/unfair- corporal punishment-abuse
- Psychosis screen
Anger issues

- Anger/aggression in ADHD most often improve when ADHD is treated.
- Aggression a rare side effect and is often related to rebound.
- Anger/aggression not a contraindication to ADHD treatment unless:
  - Severe, prolonged rage attacks
  - Psychotic symptoms co-occurring with anger
  - Self-injurious behavior (beyond dropping or head banging, i.e., cutting, suicidal ideation)

Methylphenidate (MPH)

- Apatensio XR:
  - 40% released immediately, 60% as extended release.
Amphetamine

ADHD medication guide

- Updated versions of the ADHD Medication Guide can be viewed at www.ADHDMedicationGuide.com.
- Laminated copies of the ADHD Medication Guide can be obtained at: www.ADDIandADHD.com.
- Contact Dr. Andrew Adornato at ADHDMedGuide@NEBLS.com with any questions, suggestions or comments.

North Shore-LIJ
Steven & Alexandra Cohen Children’s Medical Center of NY

Side Effects with Methylphenidate and Amphetamine Therapy

Many side effects are characteristic of ADHD and improve with stimulant treatment

*P<.01 vs placebo; †P<.01 vs methylphenidate.
Choosing stimulant

- On average MPH and AMP have equal efficacy and degree of adverse events
- Wide individual variation in how patients respond to stimulant class/formulations
- No clinical predictors of stimulant response exist
- Careful individual trials are needed

Stages of Medication RX for ADHD

1. Trial of a single stimulant, try different formulations for duration action
2. Trial of stimulant in alternate class
   - MPH fail → AMP
   - AMP fail → MPH
3. Trial of atomoxetine or alpha agonist XR
4. Combination of stimulant and alpha agonist

How fast to titrate?

<table>
<thead>
<tr>
<th>Concora</th>
<th>Adderall XRT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under 25 kg</td>
<td>Over 25 kg</td>
</tr>
<tr>
<td>Week 1</td>
<td>18</td>
</tr>
<tr>
<td>Week 2</td>
<td>27</td>
</tr>
<tr>
<td>Week 3</td>
<td>36</td>
</tr>
<tr>
<td>Week 4</td>
<td>54</td>
</tr>
</tbody>
</table>

Titrations can be done by phone
Diagnosis and Treatment of ADHD

Alpha Agonist Summary

- Clonidine
  - Increasingly used in single dose in PM for insomnia secondary to stimulants (0.05 to 0.1 mg q HS)
  - Declining role for treatment of daytime ADHD due to efficacy issues as well as sedation
- Guanfacine
  - Both immediate release and XR used more ADHD itself
    - Non responders to stimulants and atomoxetine
    - Patients with stimulant-induced tics whose ADHD responds only to stimulants

Dosing of alpha agonists

<table>
<thead>
<tr>
<th>Week</th>
<th>Dosage (mg) of Clonidine (Weight &lt; 45 kg)</th>
<th>Dosage (mg) of Guanfacine (Weight &gt; 45 kg)</th>
<th>All weights</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseline</td>
<td>Clonidine</td>
<td>Guanfacine</td>
<td>Clonidine</td>
</tr>
<tr>
<td>1-2</td>
<td>0.05 q.h.s.</td>
<td>0.5 q.h.s.</td>
<td>0.1 q.h.s.</td>
</tr>
<tr>
<td>2-4</td>
<td>0.05 b.i.d.</td>
<td>0.5 b.i.d.</td>
<td>0.1 b.i.d.</td>
</tr>
<tr>
<td>3-6</td>
<td>0.05 t.i.d.</td>
<td>0.5 t.i.d.</td>
<td>0.1 t.i.d.</td>
</tr>
</tbody>
</table>

Guanfacine XR and stimulants

Wilens et al. Presented at AACAP meeting, New York, 2010

No difference in somnolence rates between AM and PM administration

% with ADHD RS - Pm
Diagnosis and Treatment of ADHD

Clonidine XR and stimulants

Mean age 10.5 years
ADHD >26 after 4 weeks of stimulant

Rebound

- When medication wears off, possible that behaviors not only return to baseline, but are worse.
  - Evening behavior- is it "just the same" or "worse"?
  - Is it associated with irritability/outbursts not present before meds (or much worse after meds)?
  - If school behavior much improved, but evening behavior worse, that is rebound.
  - If irritability is worse during the peak time of the stimulant during the day, that is a mood side effect (rare)

How to handle rebound

- If rebound occurs at 4 PM or symptoms do not controlled after 4 PM in spite of long acting:
  - If room for improvement in daytime ADHD, increase AM dose of long acting stimulant
  - If perfect at school but sx rebound at 4 PM, add short acting stimulant in pm
- If rebound occurs later in night or is associated with severe predominately irritable mood add alpha agonist.
Sculpting the stimulant dose

<table>
<thead>
<tr>
<th>Day time dose</th>
<th>Afternoon dose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concerta 18 mg Q AM</td>
<td>MPH 5 q 4 pm</td>
</tr>
<tr>
<td>Concerta 35-72 mg Q AM</td>
<td>MPH 10-20 mg q 4 PM</td>
</tr>
<tr>
<td>Vyvanse 30-50 mg Q AM</td>
<td>DEX/MSA 5 mg q 4 PM</td>
</tr>
<tr>
<td>Vyvanse 60-70 mg Q AM</td>
<td>DEX/MSA 5 mg q 4 PM</td>
</tr>
<tr>
<td>Focalin XR 5 mg Q AM</td>
<td>D-MPH 2.5 mg Q 4 PM</td>
</tr>
<tr>
<td>Focalin XR 10 mg Q AM</td>
<td>D-MPH 5 mg Q 4 PM</td>
</tr>
<tr>
<td>Focalin XR 15-30 mg Q AM</td>
<td>D-MPH 7.5-10 mg Q 4 PM</td>
</tr>
</tbody>
</table>

*Caution regarding sleep and appetite*

Adding alpha agonist

- Add for:
  - “Hyperarousal” - either baseline or stimulant induced - irritable, crying, can’t settle
  - Partial response of ADHD symptoms when stimulant has been maximized
  - Sleep issues
  - Tics (as discussed)

Sleep Problems Only
- Clonidine 0.1-0.2 mg q hs
- Avoid doses above 0.2 mg

Irritability PM only
- Guanfacine IR 1-2 mg Q 4 PM
- Can be added to pm stimulant dose

All day irritability/partial response
- Intuniv 1-4 mg q AM
- Can give Intuniv q hs
- Clonidine ER helpful in severe hyperarousal, watch for sedation
The Psychology of ADHD
- There is no "Why?"
- Everything is short term
- Parental ADHD/ADHD traits a problem
- ADHD children do not process rewards and punishments similar to typically developing children:
  - Always go for immediate reward
  - Cannot delay gratification
  - Social rewards not "salient" - i.e. reinforcing

Behavioral Approaches

<table>
<thead>
<tr>
<th></th>
<th>Mon</th>
<th>Tues</th>
<th>Wed</th>
<th>Thu</th>
<th>Fri</th>
<th>Sat</th>
<th>Sun</th>
</tr>
</thead>
<tbody>
<tr>
<td>Don’t hit sister</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Do things 1st time asked</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Homework</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Risperidone for aggression?

Dangers of Antipsychotics

- Weight gain
- Lipid issues
- High prolactin
- Breast discharge
- EPS/NMS (rare but problematic)

What Does Risperidone Add to Parent Training and Stimulant for Severe Aggression in Child Attention-Deficit/Hyperactivity Disorder?

Treatment of Severe Childhood Aggression (The TOSCA Study)

Michael Amen et al.

Journal of the American Academy of Child and Adolescent Psychiatry

Volume 53, Issue 1, Pages 47-60.e1 (January 2014)

DOI: 10.1016/j.jaac.2013.09.022
Diagnosis and Treatment of ADHD

Blader et al – adding Risperidal and Valproate to stimulant

QUESTIONS?
27th Annual Learning Symposium

Thanks to our Supporters

Local Community News
Norton Lewis Printing
San Antonio Magazine
South Texas Money Management
The Ewing Halsell Foundation
Incarnate Word University
Trinity University
University of Texas Health-Science Center San Antonio, CME Office
Private School Association