

Modern Day Challenges to ADHD in the Primary Care Setting

Rebecca C. Moore, DO
Meagan W. Vermeulen, MD

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Name of CME Activity: 2017 ACOFP Annual Convention & Scientific Seminars

Dates and Location of CME Activity: March 16 - 19, 2017, Gaylord Palms Resort and Convention Center, Kissimmee, FL, United

Name of Faculty/Moderator: Rebecca Moore, DO

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Modern Day Challenges to ADHD in the Primary Care Setting

Rebecca Moore, DO
Meagan Vermeulen, M.D.
Assistant Professors, Department of Family
Medicine
Rowan University SOM



Goals and Objectives:

- Understand the barriers to making a diagnosis of ADHD in children and adults
- Understand the treatment options and obstacles in children and adults with ADHD
- Understand the potential legal issues in treating children and adults with ADHD



Epidemiology of ADHD in Children

- Approximately 11% of children 4-17 years of age (6.4 million) have been diagnosed with ADHD as of 2011.
- The percentage has increased from 7.8% in 2003 to 9.5% in 2007 and to 11.0% in 2011.
- Boys (13.2%) were more likely than girls (5.6%) to have ever been diagnosed with ADHD.
- 85% of children with ADHD are at risk for having the disorder as adults

DSM-V Criteria

- A persistent pattern of inattention and/or hyperactivity-impulsivity that interferes with functioning or development
 - Six or more of the symptoms have persisted for at least six months to a degree that is inconsistent with developmental level and that negatively impacts directly on social and academic/occupational activities.
- Several inattentive or hyperactive-impulsive symptoms were present prior to age 12 years
- Several inattentive or hyperactive-impulsive symptoms are present in two or more settings (e.g. at home, school, or work; with friends or relatives; in other activities)

DSM-V Criteria

- There is clear evidence that the symptoms interfere with, or reduce the quality of, social, academic or occupational functioning
- The symptoms do not occur exclusively during the course of schizophrenia or another psychotic disorder and are not better explained by another mental disorder (e.g. mood disorder, anxiety disorder, dissociative disorder, personality disorder, substance intoxication or withdrawal)



What is an IEP?

- Individual Education Program
- Available in public schools and free of charge
- Sets up goals for the child for the year
- Tried to educate a child in the least restrictive environment
- Makes an effort to help kids stay in a regular classroom



Reasons for Developing IEP

- Learning disabilities
- ADHD
- Emotional disorders
- Cognitive challenges
- Developmental delay
- Physical disabilities
- Autism
- Hearing Impairment
- Visual Impairment
- Speech or language impairment



How do you get an IEP evaluation?

- A parent, teacher, or physician can request an evaluation
 - Request should be in writing to ensure documentation of the date the request was made
 - Evaluation must be completed within 90 days of the initiation of the request
- An evaluation is performed through the following:
 - a conference with parents
 - a conference with the student
 - observation of the student
 - analysis of the student's performance (attention, behavior, work completion, tests, classwork, homework, etc.)



Simply fill out the child's name, age and today's date and then check off the signs or symptoms the child has shown. Take the completed checklist to your child's health care provider.

Child's name: _____ Child's age: _____ Today's date: _____

Inattention

Six or more of the following symptoms of inattention have been present for at least 6 months to a point that is inappropriate for developmental level

- ☐ Often does not give close attention to details or makes careless mistakes in schoolwork, work, or other activities.
- ☐ Often has trouble keeping attention on tasks or play activities.
- ☐ Often does not seem to listen when spoken to directly.
- ☐ Often does not follow through on instructions and fails to finish schoolwork, chores, or duties in the workplace (loses focus, gets sidetracked).
- ☐ Often has trouble organizing activities.
- ☐ Often avoids, dislikes, or doesn't want to do things that take a lot of mental effort for a long period of time (such as schoolwork or homework).
- ☐ Often loses things needed for tasks and activities (e.g. toys, school assignments, pencils, books, or tools).
- ☐ Is often easily distracted.
- ☐ Is often forgetful in daily activities.

Hyperactivity / Impulsivity


Six or more of the following symptoms of hyperactivity-impulsivity have been present for at least 6 months to an extent that is disruptive and inappropriate for developmental level

- ☐ Often fidgets with hands or feet or squirms in seat when sitting still is expected.
- ☐ Often gets up from seat when remaining in seat is expected.
- ☐ Often excessively runs about or climbs when and where it is not appropriate (adolescents or adults may feel very restless).
- ☐ Often has trouble playing or doing leisure activities quietly.
- ☐ Is often "on the go" or often acts as if "driven by a motor".
- ☐ Often talks excessively.
- ☐ Often blurts out answers before questions have been finished.
- ☐ Often has trouble waiting one's turn.
- ☐ Often interrupts or intrudes on others (e.g., butts into conversations or games).

What do you see?

Ask a relative, friend, coach, teacher, or child care provider to tell you what your child does. Print a blank checklist and forward them.

More information:
<http://www.cdc.gov/adhd>
 1-800-CDC-INFO (800-232-4636) <http://www.cdc.gov/info>

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And then...

- a multidisciplinary team of professionals will evaluate the child based on the following:
 - their observations
 - the child's performance on standardized tests
 - Daily work such as tests, quizzes, classwork, and homework
- Tests might include measures of specific school skills, such as:
 - reading or math
 - more general developmental skills including speech and language

And then...

- Team members complete their individual assessments and develop a comprehensive evaluation report (CER) that compiles their findings
- Offers an educational classification
- Outlines the skills and support the child will need
- Parents have a chance to review the report before the IEP is developed. Changes can be made based on discussion between parents and the team members



How does the report help?

- It outlines the support services your child will receive and how often they will be provided (for example, occupational therapy twice a week)
- Support services might include special education, speech therapy, occupational or physical therapy, counseling, audiology, medical services, nursing, and vision or hearing therapy
- They might also include transportation; the extent of participation in programs for students without disabilities



- IEP should be reviewed annually to update the goals and make sure the levels of service meet your child's needs.
 - IEPs can be changed at any time on an as-needed basis.
 - A parent can request a meeting and bring the team together to discuss your concerns If you think your child needs different services.



How to Empower the Parents

- Get a copy of your parents' rights when your child is referred. These guidelines outline parent right to control what happens to your child during each step of the process.
- The parents' rights also describe how you can proceed if you disagree with any part of the CER or the IEP — mediation and hearings both are options.
 - You can get information about low-cost or free legal representation from the school district or, if your child is in Early Intervention (for kids up to age 3), through that program.



Points to Remember...

- Parents have the right to choose where their kids will be educated. This choice includes public or private elementary schools and secondary schools, including religious schools. It also includes charter schools and home schools.
- The rights of children with disabilities who are enrolled in private elementary schools and secondary schools are not the same as those of kids with disabilities who are enrolled in public schools



Private School Considerations:

- Children with disabilities who are placed by their parents in private schools may not get the same services they would receive in a public school.
- Not all kids with disabilities placed by their parents in private schools will receive services.



What is a 504?

- a civil rights law that prohibits discrimination against individuals with disabilities
 - part of the Rehabilitation Act of 1973
- Section **504** ensures that students with medical or other disabilities have equal access to an education
- Qualified students may receive accommodations and modifications planned by persons knowledgeable about the students, the meanings of evaluation data, and placement and accommodation options.



Section 504

- A law that protects individuals from discrimination based on their disability in connection with any public or private program or active receiving federal financial assistance.
- Divided into seven subparts
 - Subpart D = K-12 schools
 - Subpart E = postsecondary institutions



So what do we do? How do we treat children/adolescents with ADHD?



Changes in ADP Guidelines

- ADP changed guidelines in 2011
- Expanded the age range – previously 6-18yrs and now 4-18yrs
- Expanded scope of treatments to include behavioral therapy
- Developed an algorithm for evaluation, diagnosis and treatment of ADHD
- Formed an integration with the Task Force of Mental Health



Preschool Children (4-5 years)

- Behavioral therapy as first line of treatment for the child, parent and teacher
- Medication for children if behavioral therapy does not significantly improve and have moderate to severe symptoms



Elementary School Children (6-11 years)

- Medication **AND**
- Behavioral therapy strategies:
 - Parent training
 - Classroom behavioral management
 - Peer interventions that focus on behavior
 - Organizational skills training
 - Combination of behavioral therapies



Adolescents (12-18 years)

- FDA approved medications **AND** behavioral therapy

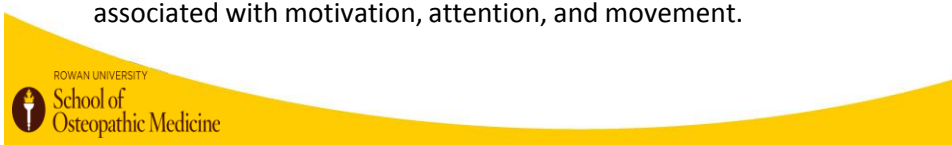


Stimulants

- Amphetamine ([Adzenys XR ODT](#), [Evekeo](#))
- Amphetamine/Dextroamphetamine ([Adderall](#) and [Adderall XR](#))
- Dextroamphetamine ([Dexedrine](#), [ProCentra](#), [Zenzedi](#))
- Dexmethylphenidate ([Focalin](#) and [Focalin XR](#))
- Lisdexamfetamine ([Vyvanse](#))
- Methylphenadate ([Concerta](#), [Daytrana](#), [Metadate CD](#), [Metadate ER](#), [Ritalin](#), [Ritalin SR](#), [Ritalin LA](#), [Quillivant XR](#))

*Between 70-80 percent of children with ADHD have fewer ADHD symptoms when they take these fast-acting medications.

* Believed to increase brain levels of dopamine—a neurotransmitter associated with motivation, attention, and movement.

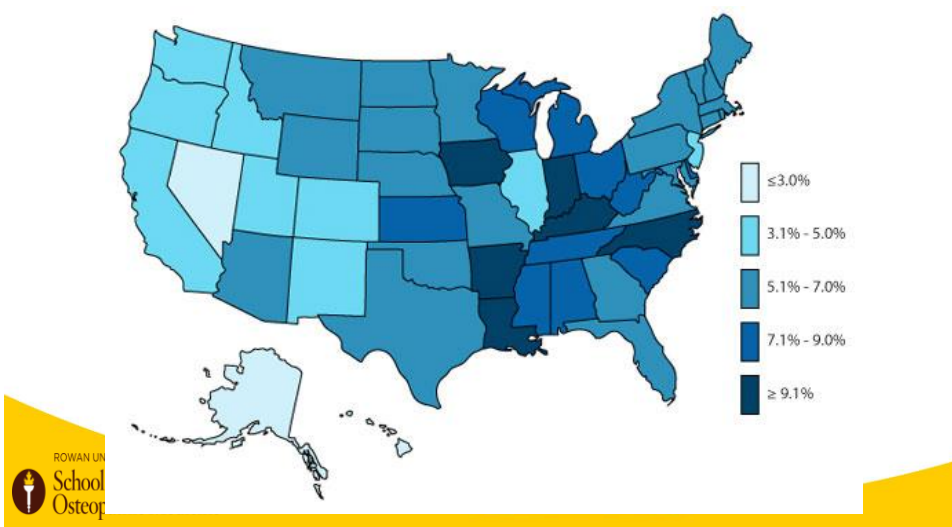


Non Stimulants

- atomoxetine ([Strattera](#))
- guanfacine ([Intuniv](#))
- clonidine ([Kapvay](#))



Percent of Youth Aged 4-17 Years Currently Taking Medication for ADHD by State:
National Survey (2011)



Other Medications

- Tricyclic antidepressants
 - Amitriptyline ([Elavil](#))
 - Desipramine ([Norpramin](#), [Pertofrane](#))
 - Imipramine ([Tofranil](#))
 - Nortriptyline ([Aventyl](#), [Pamelor](#))
- Bupropion ([Wellbutrin](#))
- Escitalopram ([Lexapro](#)) and sertraline ([Zoloft](#))
- Venlafaxine ([Effexor](#))



Side effects of Medications

- Decreased appetite
- Weight loss
- Fatigue
- Dizziness
- Heart rate

- *Consider EKG before initiating stimulant medications



Barriers to Treatment

- Live in an area with no access to behavioral therapy
- Dissatisfaction with the diagnostic process.
- Fear of stimulant medication



Accommodations in the Classroom

- You could provide the student with a copy of your lecture notes or outline.
- Allow the student to tape record lectures.
- Allow the student additional time to complete in-class assignments, particularly writing assignments
- Use more than one way to demonstrate or explain information.
- Read aloud what you write on the board or present on an overhead visual
- Provide study guides or review sheets.



Examination Accommodations

- Extended exam time
 - typically time and one half to double time
- To take exams in a room with reduced distractions
- The assistance of a reader, scribe, or word processor for exams
- The option of an oral exam
- To use spelling and grammar assistive devices for essay exams
- To use a calculator for exams
- To use scratch paper during exams



Prescription Monitoring Programs

- Varies slightly from state to state
 - NJ Aware
- Licensed physicians can register to have access to the program
- Some state programs can show medications filled in neighboring states
- Can log onto the site to check on patient's compliance on medications



Special Considerations: The Elite Athlete

– NCAA

– IOC



NCAA Stance of ADHD Medications

- Stimulant medications are NCAA banned substances
- The use requires the institution to maintain documentation on file and submit a medical exception request
- Must use the NCAA medical exception ADHD reporting form
- Documentation must include a written report of the evaluation conducted to support the diagnosis of ADHD and medical treatment notes from the prescribing physician
- This should all be on file in case of a positive drug screen



**NCAA Medical Exception Documentation Reporting Form
to Support the Diagnosis of Attention Deficit Hyperactivity Disorder (ADHD)
and Treatment with Banned Stimulant Medication**

- Complete and maintain (on file in the athletics department) this form and required documentation supporting the medical need for a student-athlete to be treated for ADHD with stimulant medication.
- Submit this form and required documentation to Drug Free Sport in the event the student-athlete tests positive for the banned stimulant (see Drug Testing Exceptions Procedures at www.ncaa.org/drugtesting).

To be completed by the Institution:

Institution Name: _____

Institutional Representative Submitting Form:

Name _____

Title _____

Email _____

Phone _____

Student-Athlete Name _____

Student-Athlete Date of Birth _____

To be completed by the Student-Athlete's Physician:

Current Treating Physician (print name): _____

Specialty: _____

Office address _____

Physician signature: _____ Date _____

Check off that documentation representing each of the items below is attached to this report

- ☐ Diagnosis.
- ☐ Medication(s) and dosage.
- ☐ Blood pressure and pulse readings and comments.
- ☐ Note that alternative non-banned medications have been considered, and comments.
- ☐ Follow-up orders.
- ☐ Date of clinical evaluation: _____
- ☐ Attach written report summary of comprehensive clinical evaluation. Please note that this includes the original clinical notes of the diagnostic evaluation.

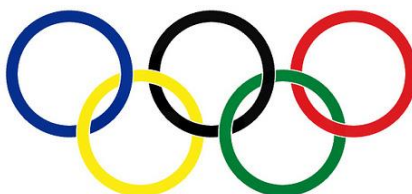
The evaluation should include individual and family history, address any indication of mood disorders, substance abuse, and previous history of ADHD treatment, and incorporate the DSM criteria to diagnose ADHD. Attach supporting documentation, such as completed ADHD Rating Scale(s) (e.g., Connors, ASRS, CAARS) scores.

The evaluation can and should be completed by a clinician capable of meeting the requirements detailed above.

DISCLAIMER: The National Collegiate Athletic Association shall not be liable or responsible, in any way, for any diagnosis or other evaluation made, or exam performed, in connection herewith, or for any subsequent action taken, in whole or in part, in reliance upon the accuracy or veracity of the information provided hereunder.

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International Olympic Committee



IOC stance on ADHD Medications

- In 1992, the IOC introduced the Therapeutic Use Exemption (TUE)
- Stimulant use by Olympic athletes for ADHD and narcolepsy has been approved recently under the TUE
- Stringent rules apply and approval by two independent consultants is required.

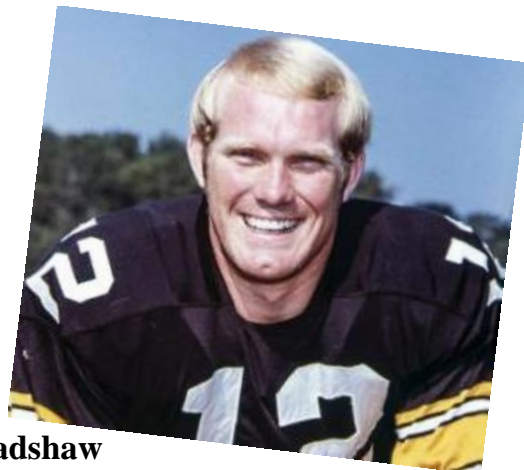


- Athletes on continued stimulant use must obtain a TUE from the World Anti-Doping Agency (WADA) prior to competing internationally
- Athletes maintained on continued therapy must undergo annual review
- In the case of a well-documented, long-standing diagnosis, a TUE can be granted for up to 4 years
 - yearly reviews by an experienced clinician are still recommended.



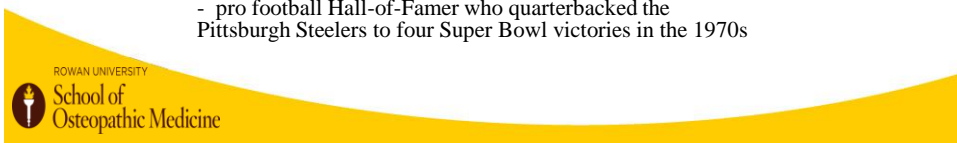
Real Life Examples

Multiple examples of athletes and celebrities who have been diagnosed with ADHD as children



Terry Bradshaw

- pro football Hall-of-Famer who quarterbacked the Pittsburgh Steelers to four Super Bowl victories in the 1970s





Michael Phelps

- record holder in Olympic gold medalist
- diagnosed with ADHD at 9 years of age



Simone



- Gold medalist in the 2016 Summer Olympics
- Diagnosed with ADHD as a child





Channing Tatum

actor, director, writer in multiple movies

ADHD Case

- A 7 year old male presents with his parents who are concerned with his behavior. They have gotten multiple phone calls from the teacher with concerns for their child. Pt was unable to sit still in the classroom. He is constantly fidgeting, getting up and walking around. The patient is not able to concentrate on his work at school and is easily distracted. The parents have noticed the same behavior at home. Plus he is easily frustrated with his homework.
- Pt had an IEP evaluation at school which consisted of the teacher, guidance counselor, school psychologist, and special education director. He was referred out to neurology and was diagnosed with ADHD with the recommendation for medication.

ADHD Case Continued

- The parents present to your office with all of the reports and paperwork. The school and parents have been working well together and making accommodations for the child. This was helping, but is now not as effective.
- The students grades are now dropping to C's and D's.
- The parents express concern over taking medications, but have exhausted all other options.
- The child was started on Adderall XR after an EKG was done. The parents and teachers both noticed a great improvement with the students concentration, behavior and socialization.
- The child's grades went up to A's and B's. He was able to participate in football and baseball.



It's Not Just for Kid's Anymore!

ADHD IN ADULTS



Goals and Objectives:

- Understand the barriers to making a diagnosis of ADHD in adults
- Understand the treatment options and obstacles in adults with ADHD
- Understand the potential legal issues in treating adults with ADHD



Prevalence of ADHD in Adults

- 85% of children with ADHD are at risk for having the disorder as adults
- Per NIMH, 8 million adults (4.4% of the population) in the United States meet criteria for ADHD
 - 41.3% of these patients are classified as having severe symptoms
- ***Only 10.9% of these patients receive treatment***



BARRIERS TO DIAGNOSIS



Common Barriers

- Patient barriers:
 - Previously thought to “grow out” of diagnosis
 - Patient’s reluctance to seek treatment
- Physician barriers:
 - Lack of formal diagnostic criteria
 - Lack of old records
 - Often difficult/time consuming diagnosis to make
 - Physicians’ reluctance to treat



Diagnostic Criteria: DSM-V

- Identical to DSM-IV, save for a few additions
 - Symptoms may be present at age 12 or earlier
 - There must be several symptoms present in more than one setting (home and school)
 - New descriptions of symptoms in “older settings” to aid in the diagnosis of older adolescents and adults
- ***However, DSM-V does not explicitly set forth criteria for evaluating ADHD in adults***



So how do you make a diagnosis?

- Be aware that adults manifest symptoms differently
- Obtain and review old records when available
- Corroborate symptoms and evidence of impairment
- Use available rating scales



Making a Diagnosis

- Rating scales:
 - Adult ADHD Self-Report Scale
 - Brown Attention-Deficit Disorder Symptom Assessment Scale (BADDs) for Adults
 - Adult ASRS Symptom Checklist v1.1
 - Adult ADHD Clinical Diagnostic Scale (ACDS) v1.2
 - ADHD Rating Scale IV (ADHD-RS-IV) With Adult Prompts



Comorbidities with ADHD in adults

- Many adults with ADHD have comorbid psychiatric disorders:
 - Anxiety (46%)
 - “Mood disorder” (38%)
 - Impulse control (20%)
 - Substance abuse disorders (15%)
- Symptoms of ADHD are often concealed by the comorbid condition and vice versa
- Many comorbid conditions are a direct result of the impact of untreated ADHD



Comorbidities Continued

- Many adults seek treatment for the comorbid conditions and their symptoms
- Patients should be screened for both, especially if they are “failing therapy” for either ADHD or one of the comorbid conditions

TREATMENT CONSIDERATIONS

Stimulants

- Cornerstone of therapy
- Controlled Substances (Schedule II)
- FDA Approved for treatment in adults:
 - Methylphenidate
 - Dexmethylphenidate
 - Lisdexamfetamine
 - Amphetamine salts



Substance Abuse Disorders

- Growing epidemic in the US
 - Per the CDC there were more than 40,000 unintentional drug overdose deaths in the United States in 2011
 - 118% increase since 1999.
 - Over 22,000 people die yearly from prescription drug abuse
- Frequently a comorbid condition with ADHD
 - 15.2% of adults with ADHD (vs 5.6% without ADHD) meet criteria for a SUD



Substance Abuse Disorders

- SUD remission rates are lower and the risks of attempted suicide are greater in those with co-occurring SUDs and ADHD compared with those without ADHD
- In addition, the transition to more severe substance use is more likely to occur if someone with an SUD also has ADHD

Substance Abuse Disorders

- Why the relationship?
 - Poor executive functioning
 - “Shame-based thinking”
 - Faulty “reward” system
 - Attempts at self-medicating
 - Genetic factors

SUD Treatment Considerations

- **NOT** treating the ADHD may significantly impair the ability to treat the SUD
- Pharmacotherapy, specifically stimulants, remains the mainstay on therapy
 - *The risk of stimulant medication abuse does not seem to be appreciably higher in people with co-occurring ADHD and SUDs than in those with ADHD alone*



Stimulant Abuse, Misuse & Sale

- According to the 2012 National Survey on Drug Use and Health, nonmedical use of dextroamphetamine-amphetamine has risen sharply among both college-aged adults and adults ages 26 and older
- Twitter messages with “Adderall” rise sharply in college areas during exam times



Substance Abuse and Misuse

- Studies suggest 25% of patients misuse their medications
- Consequences of Misuse and Abuse
 - Physical: psychosis, seizures, cardiovascular events
 - Behavioral: increased hyperactivity and impulsivity
 - More likely to abuse illicit drugs



Addiction

- No current treatment strategies for stimulant addiction
- 2015 West Virginia Supreme Court Decision
 - *Ruled patients could sue their doctors when they became addicted after meds negligently prescribed*
- How to avoid this:
 - Use Prescription Monitoring Programs
 - Document Informed Consent
 - Keep Excellent Records



Alternative treatment options

- Atomoxetine (non-stimulant)
- Medications often used off label for ADHD in adults:
 - Clonidine
 - TCA's
 - Nuvigil/Provigil
 - Wellbutrin
 - Amantadine
 - Other stimulants

LEGAL CONSIDERATIONS

Disability Laws

- Rehabilitation Act (RA) of 1973 and the Americans with Disabilities Act (ADA) of 1990 (amended 2008) that apply to higher education and the workplace
 - *Comprehensive civil rights laws that guarantees that individuals with disabilities have no barriers to participate in “mainstream” American life*



Is ADHD a Disability?

- **Not** specifically recognized as a disability under the ADA act
- ADA act does provide criteria to determine if a diagnosis constitutes a disability:
 - Physical or mental impairments that severely limit one or more activities
 - Has a record of such impairment
 - Has been regarded as having such an impairment



Disability Discussions

– Impact on Education

- **IDEA act and Individual Education Plans (IEP's)**
 - Designed to promote success in K-12
 - Governs early intervention, special education and related services for disabled students ages **3-21**
- **504 Plans**
 - Developed to meet accommodations and modifications in the learning environment and physical space
 - ***Follows students to college***



Transition to Higher Education

- Part of the IEP should address transition planning
- College students are protected under Section 504 and the ADA act, however, ***the ability to succeed is placed on the student***



Transitioning to Higher Education

- Colleges/Universities are under ***no obligation*** to seek the student out
- Burden of proof is on the student
- Accommodations must be ***reasonable and necessary***
- Students should be encouraged to:
 - Know their resources
 - Develop coping skills and tools



ADHD and the Workplace

- Protection extends to recruitment, hiring, upgrading, promotion, rewarding of tenure, discharge, demotion, transfer, layoff, rehiring, compensation, leave and various benefits
- To be eligible, the employee ***must disclose*** the disability to the employer
- ***Again, the accommodations must be reasonable and specific***



Drug Testing

- On the rise in the workplace
 - Pre- and Post-employment
- Often a source of anxiety for patients
 - Positive tests should correlate with dosing
 - Long acting: + for 3-5 days
 - Short Acting: + <1 day
- Results must be kept confidential by employer

CONCLUSIONS

Conclusions

- Many barriers exist to making the diagnosis
 - Have a diagnostic tool
 - Take a thorough history
 - Know your comorbidities
 - Watch for treatment failures



Conclusions continued

- Know your treatment options
 - Stimulants are first line
- Be mindful of inconsistencies
 - Identify misusers and abusers
 - Inconsistent Drug Screens/PMP records



Conclusions continued

- Be mindful of special circumstances
 - Athletes, students, workplace
- Be an advocate for your patients
 - Know the laws
 - Know their resources
 - ADA.org
 - CHADD.org
 - CDC.gov