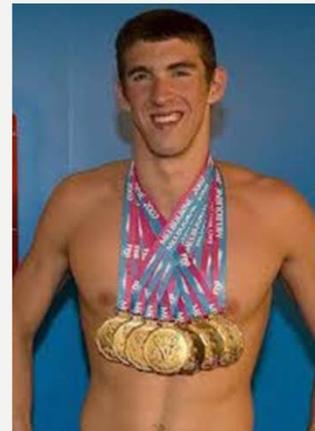


**ADVANCED
ADHD
STIMULANT
ALTERNATIVES
IN PEDIATRIC
PRIMARY CARE**

ABIGAIL SCHLESINGER, MD

THE FACES OF AD/HD



OUTLINE

- Switching stimulants
- Stimulant alternatives
- Cases
- Guidance/Anticipatory Guidance



SWITCHING STIMULANTS

JOHNNY – 7TH GRADE CRASH

- Johnny is a 13 year old male with ADHD and no comorbidities. He has responded so well to Adderall XR 30mg in the past that he has not needed therapy for over 2 years. In the summer before 7th grade his insurance changed, and Adderall XR was no longer covered. Mom tells you she had heard good things about Concerta, which was covered with no co-pay. She has never thought that the medication worked after school. She also had concern about 7th grade being “harder due to more homework and having to switch between classes.” She hopes that Concerta 36mg would work longer in the day than Adderall XR.

JOHNNY – 7TH GRADE CRASH

- Mom and Johnny come in today for a follow-up stating that 7th grade has been even worse than they anticipated, and they want to switch back to Adderall XR 30mg from the Concerta 36mg that he started over the summer.
- What happened and what will you do next?

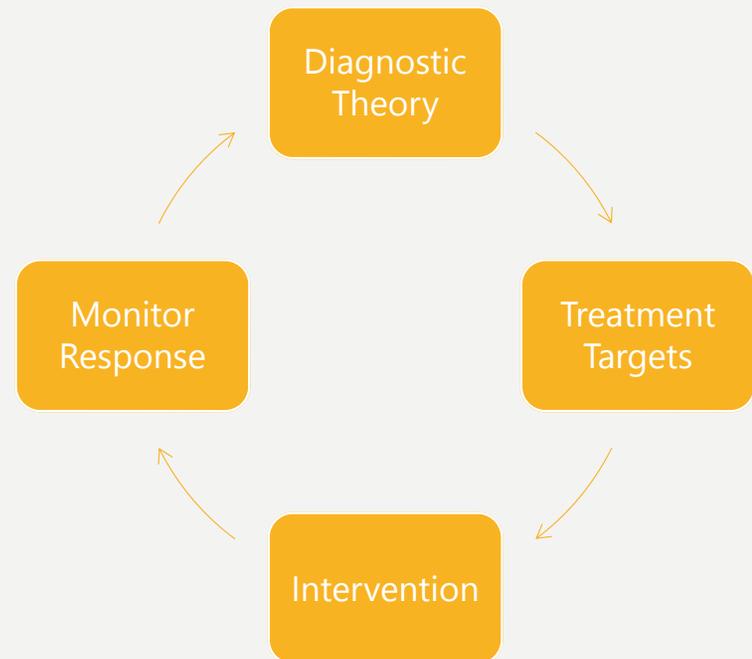
APPROACH TO TREATMENT

DIAGNOSTIC THEORY

- Developmental Context, Environment
- Diagnostic Theory



APPROACH TO TREATMENT



JOHNNY – WHAT HAPPENED

- Developmental Context & Environment– 7 th grade is different, more expectations, more homework, less support from teachers. No other trauma, no other concerns other than some increased irritability/arguing that is only with mom
- Diagnosis – no evidence of anything other than ADHD(vanderbilts clearly reveal ADHD symptoms, although some ODD symptoms are appearing in the teacher reports – this is new)
- Treatment targets – what does “it’s worse then we expected” means
 - What does mom think the one thing is that got in the way – and is it an ADHD core symptom amenable to a pharmacologic or nonpharmacologic intervention

JOHNNY WHAT HAPPENED

- Treatment targets – completion of homework
 - Better ability to attend to what homework is in class
- Treatment Recommendations
 - Environment – requirements of 7th grade were more
 - Does he need an IEP/504 plan – to support sitting in the front, extra help in school with homework
 - Does he need a new approach to after school work
 - Medication
 - Concerta 36mg is not equal to adderall xr 30mg
 - Adderall XR 30mg equivalent to at least concerta 54mg (maybe 72mg or higher)
 - Adderall XR 10mg = Adderall 5 twice a day(total=10mg) = Ritalin 20mg three times a day

CONVERTING BETWEEN STIMULANTS

1. Estimate Total daily dose
 - Methylphenidate relationship to amphetamine(In terms of total daily Dose)
 - Which are enantiomers and which are not(enantiomers are always half the dose)
 - Which medications do not follow the rules?
2. Length of action - Decide how far apart you think medication should be given by length of action
 - Short, “Longer short”, intermediate, long
 - How long do they actually work for the child?
3. Convert to long-acting if needed
 - Break up dose throughout the day based on how long they act

AMPHETAMINE & METHYLPHENIDATE

TOTAL DAILY DOSES

- Adderall(amphetamine product) Total Daily Dose is generally equivalent to $\frac{1}{2}$ of Ritalin(methylphenidate product) dose(except enantiomer)
 - Ritalin 10mg twice a day= Ritalin 20mg a day
 - Adderall 20mg a day converts to a total of adderall product 10mg a day
- Enantiomers - Focalin (DEXmethylphenidate)
 - Ritalin 10mg twice a day = total daily dose of ritalin 20mg day
 - Ritalin 20mg a day = focalin (DEXmethylphenidate) 10mg

LENGTH OF ACTION

	Amphetamine	Methylphenidate
Short-acting – 4 hours		Ritalin , Methylin, methylphenidate
		*Focalin
Longer short acting- – 4-6 hours	Adderall, Evekeo, Zenzedi, Procentra, ampethamine, mixed amphetamine salts	
Intermediate Acting --6-8 hours		Metadate CD
		*Focalin XR
Long-Acting --10-12 hours	Adderall XR(mixed amphetamine salts ER/XR)	Quillivant(liquid), Quillichew, Aptensio XR
*Enantiomer	**Adzenys XR-ODT	Concerta
**Unique equivalency rule	**Vyvanse	

“PUTTING IT TOGETHER”

	Amphetamine	Methylphenidate
Short-acting		Ritalin 20mg tid Methylin 20 mg bid - tid *Focalin 10 mg bid - tid
Intermediate-acting	Adderall, Evekeo, Zenzedi, Procentra 15 mg bid	Metadate CD 40mg plus afternoon dose of ritalin 20 *Focalin XR 30mg plus afternoon dose of focalin 10
Long-Acting	Adderall XR 30mg **Adzenys XR-ODT 18.8mg	Quillivant 60 mg(note 25mg/5ml) Quillichew 60 mg
*Enantiomer		**Aptensio XR 60mg(actually equiv to ritalin 25.9 twice a day)
*Enantiomer **Unique equivalency rule	**Vyvanse 70mg (more similar to Ritalin 20mg tid or Adderall XR 30mg)	**Concerta 54mg-72mg or more

STIMULANTS ROUGH EQUIVALENCY

	Amphetamine	Methylphenidate
Short-acting		Ritalin 20 mg bid - tid
		*Focalin 10 mg bid - tid
Intermediate-acting	Adderall, Evekeo, or Zenzedi , or Procentra 15 mg bid	Metadate CD 30mg + afternoon dose to equal tid dosing
		*Focalin XR 30mg
Long-Acting	Adderall XR 30mg	Quillivant 60 mg (note 25mg/5ml), or Quillichew 60mg
	**Adzenys XR-ODT 18.8mg	
*Enantiomer		**Aptensio XR 60mg (actually equiv to ritalin 25.9 twice a day)
**Unique equivalency rule	**Vyvanse 70mg (more similar to Ritalin 20mg tid or Adderall XR 30mg)	**Concerta 54mg-72mg or more

STIMULANTS – ROUGH EQUIVALENCY

- Methylphenidate 1 mg is roughly equivalent to 0.5 mg Amphetamine salt, Dextroamphetamine or dexamethylphenidate
- Switching from Adderall to Dextroamphetamine or Methylphenidate
 - Start with same total daily dose and titrate up for effect
- Switching from Methylphenidate to Adderall
 - Start with one half of total daily dose and adjust based on effect and adverse effects
 - Concerta 18 mg/day is roughly equivalent to Methylphenidate 15 mg/day

JOHNNY

1. Estimate total daily dose
 - Adderall XR 30mg = total daily dose of Ritalin 60mg
 - (actually on concerta 36mg) – Ritalin 30-40
2. Length of action
 - Concerta does last 10-12 hours – concerns during school day
 - Increase to 54mg and follow-up in 1-2 months
 - He may need an afternoon dose of Ritalin
3. Convert to long-acting if needed
 1. Already on long-acting



STIMULANT ALTERNATIVES

TWO (VERY) BROAD CLASSES OF ADHD MEDICATIONS

- Stimulants

- Methylphenidate
- Amphetamine and derivatives

- Non-stimulants

- Alpha-2 agonists
- Atomoxetine (Strattera)
- Bupropion (Wellbutrin)

Stimulant Alternatives/Adjuncts

Alpha-2 Agonists		
	Short Acting	Long-Acting
	Clonidine(Catapres)	Clonidine ER(Kapvay)
	Guanfacine(Tenex)	Guanfacine ER(Intuniv)
Atomoxetine(Strattera)		
Bupropion(Wellbutrin)		

ALPHA-2 AGONISTS

- These are purported to work in Prefrontal Cortex for ADHD
- Also work in Brain Stem to decrease sympathetic activity, decreasing blood pressure
 - Side effects are largely from decreasing sympathetic signaling (i.e., dry mouth, sedation)
 - Hypotension
- Not often used as ADHD monotherapy, very often used as an adjunct – except for impulsive aggression
- Takes weeks to see full effect

ALPHA-2 AGONISTS : DOSAGE, TREATMENT, AND SIDE EFFECTS

- Useful for residual hyperactivity & impulsivity, insomnia, treatment emergent tics, & aggression
- Routine Physical Exam Vital Signs prior to initiation of Prescriptions
- Contraindications: CAD, impaired liver/renal function
- Side Effects: Rebound HTN/tachycardia, hypotension, sedation, dizziness, constipation, H/A, fatigue
- Dosage: Start with HS and titrate toward morning(or afternoon)
- Monitor BP, but ECG not routinely necessary

ALPHA-2 AGONISTS: PROS & CONS

- Clonidine (Catapres/Kapvay) & Guanfacine (Tenex/Intuniv)
- Pros:
 - Moderately effective (residual hyperactivity & impulsivity, insomnia, treatment emergent tics, & aggression)
- Cons:
 - Side Effects: Rebound HTN/tachycardia, hypotension, sedation, dizziness, constipation, H/A, fatigue, sudden death in combination with stimulants
 - Contraindications: CAD, impaired liver/renal function

ALPHA-2 AGONISTS – DOSING GUANFACINE (TENEX)

- <45 kg start 0.5mg at bedtime >45 kg start 1mg at bedtime
- Can increase to 0.5 bid-tid for total of
 - 2mg(<40mg);3mg(<45mg);4mg(>45kg)
- Benefit in treatment of ADHD in children w/comorbid tic d/o (Scahill et al 2001 n = 34)
- Benefit in adults w/ADHD comparable to dexedrine (Taylor et al 2001, n = 17)

LONG-ACTING ALPHA-2 AGONISTS – DOSING GUANFACINE ER (INTUNIV)

- 1 mg to 7mg (0.05-0.12 mg/kg target weight based dose range) once daily
 - 6-12 not much data over 4mg
 - 13 and above not much data over 7mg
- Begin at a dose of 1 mg once daily and adjust 1 mg/week.
- Do not
 - Crush, chew or break tablets before swallowing.
 - Administer with high-fat meals,
 - Substitute with short acting guanfacine 1-1 (different pharmacokinetic profiles)
 - Cross titrate with short acting(stop short acting then start long-acting)
- Do: discontinue with a taper(1 mg every 3 to 7 days to avoid rebound hypertension)

ALPHA-2 AGONISTS – DOSING CLONIDINE

- Start - <45kg 0.05mg at bedtime >45kg 0.1mg at bedtime
- Titrate – <40kg 0.2mg; <45 0.3mg; >45 0.4mg
- Sedation decreases with time
- Often only given at bedtime
- Benefit with and w/out MPH in children with Tourettes in reducing ADHD & tics (Tourette's Study Group 2003, n = 136)
- Benefit in children w/comorbid MR (Agarwal et al 2001, n = 10)
- Meta-analysis shows decreased effect size compared to stimulants(Connors et al 1999)

LONG-ACTING ALPHA-2 AGONISTS – DOSING CLONIDINE ER (KAPVAY)

- Dosing 0.1-0.2 bid at am and bedtime – increase by 0.1 every week
- More common side effects may include: drowsiness, tiredness, irritability, nightmares, sleeplessness, constipation, dry mouth, decreased appetite, dizziness.
- Less common side effects may include: low blood pressure, low heart rate
- Tablets should not be crushed, chewed or broken before swallowing.
- Do not substitute for other clonidine products on a mg-per-mg basis, because of differing pharmacokinetic profiles.
- ²⁶When discontinuing, taper the dose in decrements of no more than 0.1 mg every 2 to 7 days

STRATTERA: EFFICACY IN CHILDREN & ADOLESCENTS

- 24-hour duration of action with once-daily dosing
- Incidence of insomnia comparable with placebo (for children/adolescents)
- Not contraindicated in patients with tics and anxiety
- Nonstimulant/noncontrolled substance
- May improve some measures of functional outcome (not just core ADHD symptoms)
- DOSING:
 - 0.5 mg/kg qam (e.g. 10mg x4d, then double)
 - 1.4mg/kg or 100mg

STRATTERA: SIDE EFFECTS

- Children and Adolescents:
 - Decreased appetite (15%)
 - Ave wt loss of 2 – 4 LB in first 3 months, then resume nl growth
 - Dizziness (5%)
 - Dyspepsia (5%)
 - Sedation
 - BP/HR
- Adults:
 - Anticholinergic side effects (dry mouth, constipation, urinary retention)
 - Sexual (decreased libido, erectile disturbance, anorgasmia)
 - Insomnia
 - Nausea and decrease in appetite
 - BP/HR
- Liver Toxicity – rare side effect
- Has black box warning for suicidality.

WHEN TO CONSIDER STRATTERA

- History of adverse effect to stimulants
- Comorbid anxiety, depression, tics, enuresis or Tourette's
- Require 24 hour symptom relief
- Severe stimulant rebound
- Personal or family history of substance abuse
- Concern about insomnia or appetite suppression

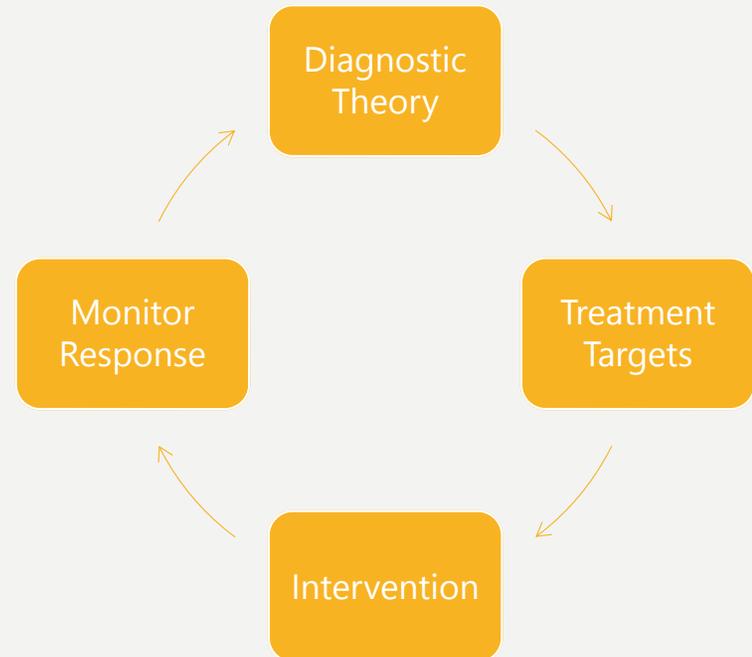
APPROACH TO TREATMENT

DIAGNOSTIC THEORY

- Developmental Context, Environment
- Diagnosis



APPROACH TO TREATMENT



GENERAL DIFFERENTIAL

Developmental/ Learning	Emotional/ Behavioral	Physical/Other
Difficulty with Intellectual functioning/adaptive functioning	Avoidance/Worry	Snoring, Awakening, or difficulty with sleep
Difficulty with Acquisition and use of language	Episodic periods of mood	Substance Use
Are there deficits in developing and understanding relationships; deficits in social-emotional reciprocity; and restricted repetitive patterns	Pattern of negativistic, hostile, defiant, or antisocial behaviors	Tics
Difficulty with Learning	Recent(or other) Trauma history	Other psychiatric or medical

REBECCA

- Rebecca is a 10 year-old girl who had been struggling with ADHD symptoms of inattention for years. She was started on Concerta and is currently taking 36 mg/day with improvement in school performance. She has been tolerating the medication well and has been thriving in 5th grade.

REBECCA

- Rebecca's mother brings her in for a sick visit, noting that for the past 2 weeks, Rebecca "has developed asthma and her ADHD is worse." She has been coughing persistently and occasionally shaking her head violently, and the teacher complained about her behavior disrupting class. She has no significant PMH, no other medications. Mother is very concerned about these episodes, which do not happen while she sleeps. Rebecca does not report being bothered by these behaviors, which "I just kind of have to do."

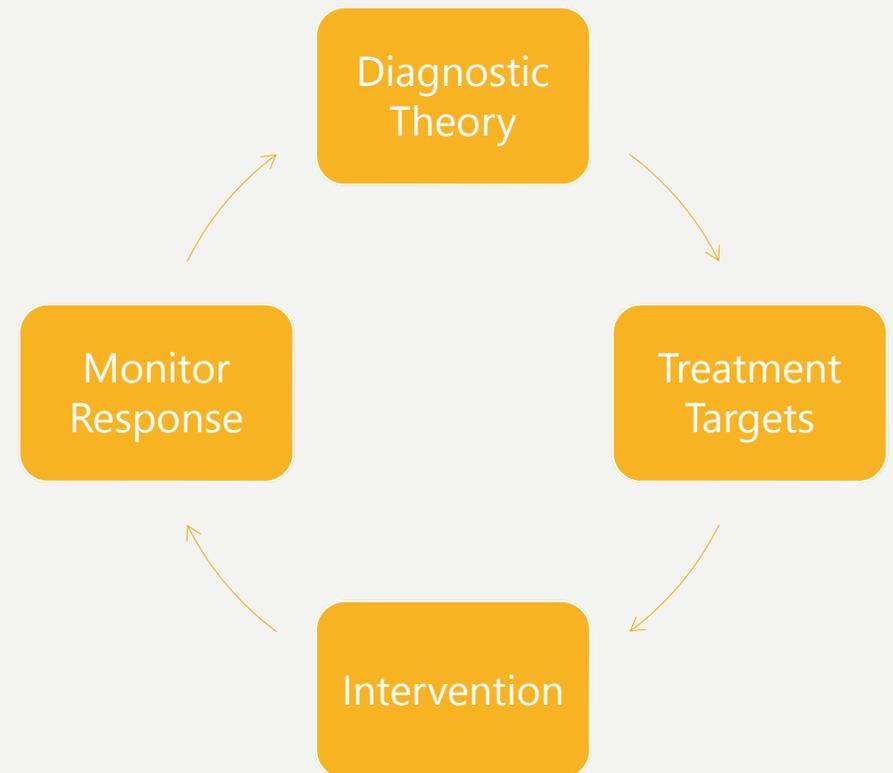
WHAT HAPPENED TO REBECCA?

DIAGNOSTIC THEORY

- Developmental Context, Environment
- Diagnosis



APPROACH TO TREATMENT

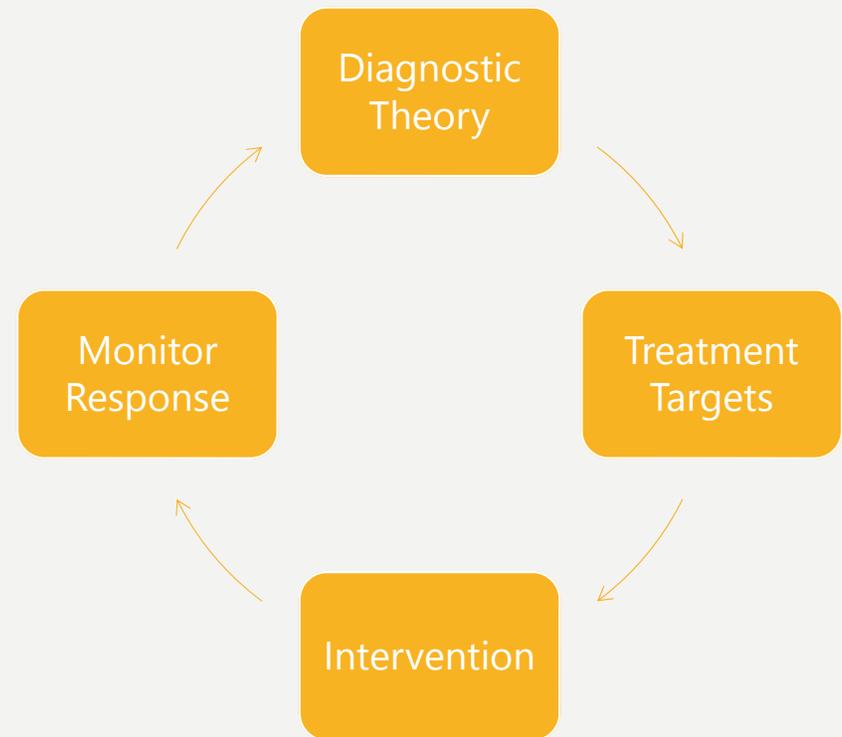


GENERAL DIFFERENTIAL

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Difficulty with Learning	Recent(or other) Trauma history	Other psychiatric or medical

REBECCA

- Initial Diagnosis – ADHD
- Initial Treatment Targets – Improve attention at school and decrease hyperactive behavior
- Intervention – Concerta 36mg
- Response - Vanderbilts follow-ups showed improved attention, school performance has also improved



Parent Assessment Scale

Predominantly Inattentive subtype

- Must score a 2 or 3 on 6 out of 9 items on questions 1–9 AND
- Score a 4 or 5 on any of the Performance questions 48–55

Predominantly Hyperactive/Impulsive subtype

- Must score a 2 or 3 on 6 out of 9 items on questions 10–18 AND
- Score a 4 or 5 on any of the Performance questions 48–55

ADHD Combined Inattention/Hyperactivity

- Requires the above criteria on both inattention and hyperactivity/impulsivity

Oppositional-Defiant Disorder Screen

- Must score a 2 or 3 on 4 out of 8 behaviors on questions 19–26 AND
- Score a 4 or 5 on any of the Performance questions 48–55

Conduct Disorder Screen

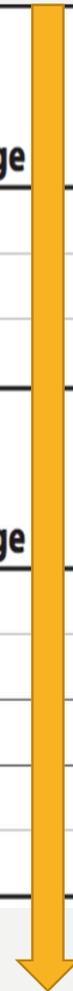
- Must score a 2 or 3 on 3 out of 14 behaviors on questions 27–40 AND
- Score a 4 or 5 on any of the Performance questions 48–55

Anxiety/Depression Screen

- Must score a 2 or 3 on 3 out of 7 behaviors on questions 41–47 AND
- Score a 4 or 5 on any of the Performance questions 48–55

Symptoms	Never	Occasionally	Often	Very Often
1. Does not pay attention to details or makes careless mistakes with, for example, homework	0	1	2	3
2. Has difficulty keeping attention to what needs to be done	0	1	2	3
3. Does not seem to listen when spoken to directly	0	1	2	3
4. Does not follow through when given directions and fails to finish activities (not due to refusal or failure to understand)	0	1	2	3
5. Has difficulty organizing tasks and activities	0	1	2	3
6. Avoids, dislikes, or does not want to start tasks that require ongoing mental effort	0	1	2	3
7. Loses things necessary for tasks or activities (toys, assignments, pencils, or books)	0	1	2	3
8. Is easily distracted by noises or other stimuli	0	1	2	3
9. Is forgetful in daily activities	0	1	2	3
10. Fidgets with hands or feet or squirms in seat	0	1	2	3
11. Leaves seat when remaining seated is expected	0	1	2	3
12. Runs about or climbs too much when remaining seated is expected	0	1	2	3
13. Has difficulty playing or beginning quiet play activities	0	1	2	3
14. Is “on the go” or often acts as if “driven by a motor”	0	1	2	3
15. Talks too much	0	1	2	3
16. Blurts out answers before questions have been completed	0	1	2	3
17. Has difficulty waiting his or her turn	0	1	2	3
18. Interrupts or intrudes in on others’ conversations and/or activities	0	1	2	3

Performance	Excellent	Above Average	Average	Somewhat of a Problem	Problematic
<i>Academic Performance</i>					
36. Reading	1	2	3	4	5
37. Mathematics	1	2	3	4	5
38. Written expression	1	2	3	4	5
<i>Classroom Behavioral Performance</i>				Somewhat of a Problem	Problematic
39. Relationship with peers	1	2	3	4	5
40. Following directions	1	2	3	4	5
41. Disrupting class	1	2	3	4	5
42. Assignment completion	1	2	3	4	5
43. Organizational skills	1	2	3	4	5



WHAT TO DO FOR REBECCA?

- Get more information and talk to family in the office
 - Review initial diagnosis and treatment targets
 - What did they mean by hyperactive behavior?
 - Is inattention really ADHD?
 - Review intervention and response
 - How impairing is the “coughing and shaking”
 - Reconsider diagnostic theory
 - Throat clearing in the past?

TIC DISORDERS

- Up to 65% of children initiating Rx with MPH may develop a transient tic
 - Simple Motor, Complex Motor, or Vocal
- Stimulants may cause or “unmask” tics
- Treatment: Alteration in stimulant dose, discontinuation of stimulant, change of stimulant, α -2 agonists, antipsychotics, CBT, Strattera

REBECCA

- Review initial diagnosis, treatment targets and response
 - Initial Vanderbilts
 - Inattention - 6/9 total = 15,
 - Hyperactivity – 2/9 total = 7
 - What did they mean by hyperactive behavior?
 - Fidgeting, and moving when not supposed to move.
 - Is Inattention actually ADHD?

Symptoms	Never	Occasionally	Often	Very Often
1. Does not pay attention to details or makes careless mistakes with, for example, homework	0	1	2	3
2. Has difficulty keeping attention to what needs to be done	0	1	2	3
3. Does not seem to listen when spoken to directly	0	1	2	3
4. Does not follow through when given directions and fails to finish activities (not due to refusal or failure to understand)	0	1	2	3
5. Has difficulty organizing tasks and activities	0	1	2	3
6. Avoids, dislikes, or does not want to start tasks that require ongoing mental effort	0	1	2	3
7. Loses things necessary for tasks or activities (toys, assignments, pencils, or books)	0	1	2	3
8. Is easily distracted by noises or other stimuli	0	1	2	3
9. Is forgetful in daily activities	0	1	2	3
10. Fidgets with hands or feet or squirms in seat	0	1	2	3
11. Leaves seat when remaining seated is expected	0	1	2	3
12. Runs about or climbs too much when remaining seated is expected	0	1	2	3
13. Has difficulty playing or beginning quiet play activities	0	1	2	3
14. Is "on the go" or often acts as if "driven by a motor"	0	1	2	3
15. Talks too much	0	1	2	3
16. Blurts out answers before questions have been completed	0	1	2	3
17. Has difficulty waiting his or her turn	0	1	2	3
18. Interrupts or intrudes in on others' conversations and/or activities	0	1	2	3

WHAT HAPPENED TO REBECCA

SHE HAS DEVELOPED TICS

SHE HAS ALWAYS HAD TICS

- ADHD and Tic Disorders are related. (brain structure overlap and pharmacologically)
 - Kids with ADHD have higher rate of tic disorders
 - Kids with Tic Disorders have a higher rate of ADHD
 - AACAP recommendations – treat whichever is most impairing first
 - My recommendations ** beware that treatment target actually lines up with the diagnosis you are treating first
- **

SO YOU THINK SHE HAS TICS

- How impairing is the “coughing and shaking”
- Are there any other potential tics
- Did it ever happen before?
 - Throat clearing in the past?

REBECCA TREATMENT TARGET

- Clarify treatment targets
 - The “hyperactive behavior” could have been tics to begin with – so you shouldn’t expect to treat that with stimulants
 - Hyperactivity is not a good initial treatment target
 - You should still monitor as potential side effect of stimulant
 - Could be a treatment target if you are doing evidence-based nonpharmacologic intervention for this behavior
 - Is inattention a symptoms of ADHD(or something else?)

REBECCA DIAGNOSIS

- Review her ADHD symptoms – she has trouble completing 3 step commands, head in the clouds, room is a complete mess and mom says she's just like dad who has ADHD and does really well on a stimulant.
- Don't forget about the potential of anxiety and transient tic.
- I think she does have ADHD

REBECCA MEDICATION MANAGEMENT

- Options
 - Reduce stimulant to 27mg and follow-up
 - If this is not effective add Tenex or Intuniv ER
 - Add Tenex or Intuniv ER and follow-up

KURTIS

- Kurt is an 8 year old boy with ADHD and ODD. He has home-based therapy. There is no history of trauma. He does not have any anxiety, depression, conduct disorder, or other medical condition. He has friends. Teachers express frustration with him because he seems to argue a lot, and purposely defy rules.
- Mom brought him in today stating that school is going much better this year now that he is taking Adderall XR 20mg for 6 month, but that he is angry, irritable, postures aggressively to her in the afternoons. He is even irritable in the afternoon on the weekends when there is no school work.

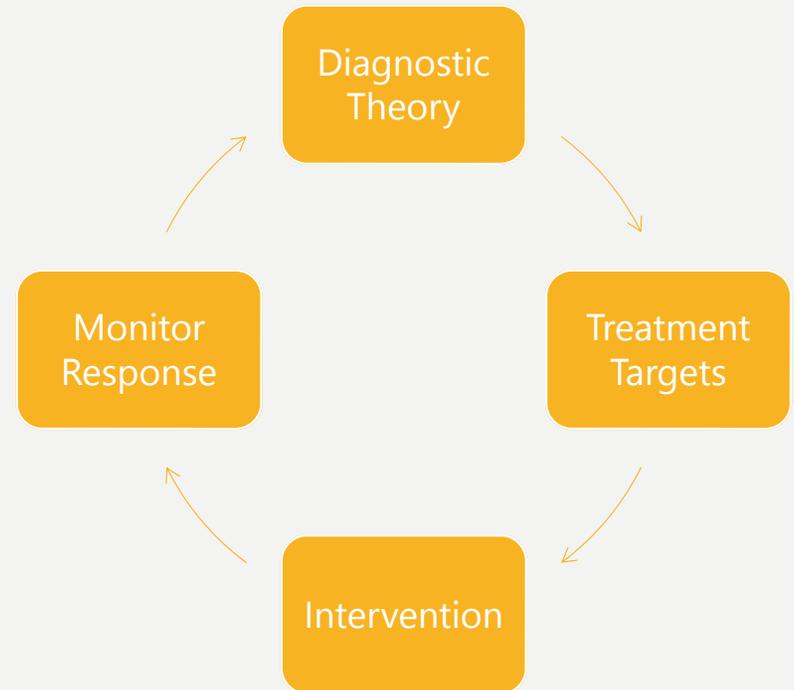
WHAT HAPPENED TO KURT?

DIAGNOSTIC THEORY

- Developmental Context, Environment
- Diagnosis



APPROACH TO TREATMENT



WHAT SHOULD YOU DO ABOUT KURT'S IRRITABILITY

- Review diagnosis and treatment targets
 - Vanbderbilts confirm that school really is going well. Although a number of domains on the Vanderbilts are scored at 1/2, none are significant anymore
 - Teachers report that they have made accomodations to reduce work burden. Mom confirms that these have helped
- Diagnostic theory – still ADHD, and afternoon irritability with mom a component of ADHD
- New treatment target – starting homework without having aggressive behavior towards mom 3/5 days of the week instead of 0/5 days a week(home based team could clarify goal for family)

GENERAL DIFFERENTIAL

Developmental/ Learning	Emotional/ Behavioral	Physical/Other
Difficulty with Intellectual functioning/adaptive functioning	Avoidance/Worry	Snoring, Awakening, or difficulty with sleep
Difficulty with Acquisition and use of language	Episodic periods of mood	Substance Use
Are there deficits in developing and understanding relationships; deficits in social-emotional reciprocity; and restricted repetitive patterns	Pattern of negativistic, hostile, defiant, or antisocial behaviors	Tics
Difficulty with Learning	Recent(or other) Trauma history	Other psychiatric or medical

GOAL “DECREASE IRRITABILITY IN THE AFTERNOON”

- Options – treat ADHD in the afternoon with a stimulant or alpha agonist
- Alpha agonist – tenex 0.5mg – could start at bedtime for at least three days so he adapts to sedation effect(if he has it)
 - Once he has adapted give the medication ½ hour before he starts to develop afternoon symptoms



GUIDANCE AND ANTICIPATORY GUIDANCE

ADOLESCENT

- I'm worried about my girl's hygiene.
 - This is a common complaint from mother's of girls with ADHD
 - Warning mothers about this and the importance to scaffold this skill as they would scaffold other skills
- Should I consider an afternoon dose?
 - YES
 - Does the adolescent have more afternoon school work
 - Will the adolescent be driving soon
 - Will the adolescent be working in the evening?

ADOLESCENT

- Be aware of “burn-out effect”
 - Tendency of parents/family to feel that the child is “ready” to take on responsibility and as a result give all responsibility to the child at once
- PLAN
 - Let parents know that they will need to have some responsibility for monitoring their child’s medication throughout adolescence
 - Changes in monitoring and support should come in baby steps
 - Consider switching parent who does homework, trying other methods to help with homework

MY 13 YEAR OLD GIRL HAS GROWN A LOT AND HER INATTENTION IS BACK.

- Should the medication be increased because of her change in weight?
- NO
- Will you send me a higher dose of medication?
- Has an evaluation been done this year suggestive of ADHD
- YES – increase medication
- NO – get vanderbilts, consider PHQa and SCARED

ADOLESCENT

- My 14 year old son is now fighting me each time we sit down to homework
- PLAN
 - Can child “pair up” with a responsible friend?
 - Consider changing the parent that manages homework.
 - Consider tutoring.
 - Add afternoon medication
- My child doesn't like the way the medication makes her feel.
- PLAN
 - Bring child in to assess what positives there are – and capitalize on them.

LATE HIGH SCHOOL/GRADUATION

- I don't think my child is ready for college/military/etc as (s)he has trouble taking care of everyday needs
- Remember the importance of small steps
 - Start the steps early
 - Start with job early
 - Consider a “year off” between high school and next step
 - Get a job
 - Manage bills
 - Pay for housing, etc

GOING TO COLLEGE

- Consider getting support in college
 - Studying support
 - Therapy support
- Put that child in charge of finding out what's available on campus.
- Seriously consider whether or not the adolescent can manage stimulants on campus.
- Make sure there is a way to secure medications in the dorm room.
- Talk about the importance of sleep, eating, etc
- Sharing medication is illegal

HOW SHOULD MY CHILD USE MELATONIN?

- Has been shown to be useful for delayed sleep
- Also useful with ADHD and sleeping problems
 - Weight < 40kg up to 3mg
 - Weight >= 40 kg up to 6mg
- Can be used from late evening/dinner to ½ hour before sleep

TAKE HOME POINTS

- Comorbidity is the RULE with ADHD
- Inattention \neq Attention Deficit/Hyperactivity Disorder
 - In other words– ADHD is never just one symptom
- Improved med management may impact comorbidities
- Non-pharmacologic intervention has a vital role
- ADHD is a lifelong condition – with serious lifelong implications

- A consistent approach(with follow-up) can make the difference

THANK-YOU