MEDICATION, ASD AND ADHD: MAKING BRAIN OVERLOAD MANAGEABLE

RICK SILVER, MD
THRIVE EMERGE

THRIVE EMERGE

Chat

- Drop your questions into the chat.
- For anonymous questions: send your message directly to “hosts and panelists”, in the settings.
- Please chat with others – it builds community!

THRIVE EMERGE

meeting logistics



Please keep your mic on mute until it's your turn to speak.



The group will be recorded.
BUT: Privacy protected – no confidential info used publicly

THRIVE EMERGE

THRIVE EMERGE



- **FREE** FROM THRIVE EMERGE -

NEURODIVERGENT RESOURCES FOR PARENTS

For Parents

- FREE 15-minute consults with Thrive clinicians
- FREE Young Adult Life Functioning Assessment (YALF)
- FREE Virtual Parent Support Group (PSG)
- FREE Executive Function Info Sheet

Scan this QR code for access to your FREE neurodivergent resources

Main Office: (410) 740-3240 / Fax: (443) 276-6640 / www.ThriveEmerge.com

Business Office Mail Only Address:
6925 Oakland Mills Rd #357 Columbia, MD 21045

THRIVE EMERGE

AGENDA

- The Adderall/ Stim Rx Shortage
- The Doctor/ Patient Relationship
- Brain Overload: A Common ASD/ ADHD Challenge
- Treating Specific Conditions

THRIVE EMERGE

THE ADHD/ ASD BRAIN DOES NOT NEED TO BE FIXED

THRIVE EMERGE

THE ADDERALL/ STIM RX SHORTAGE

THRIVE EMERGE



QUESTIONS

- Who/ What caused the shortage?
- How long will it last?
- Is the fear of an addiction “backlash” realistic?
- What can I do about it?
- What are alternatives for my current medication?

THRIVE EMERGE

WHO/ WHAT CAUSED THE SHORTAGE?

KEY PLAYERS

COVID

THRIVE EMERGE

COVID > INCREASE IN DEMAND FOR ADDERALL

- On-line school, work > challenges with focus and productivity > realized they couldn't regulate themselves at home
- Increase in patients seeking ADHD diagnosis
- Study from health data company Trilliant Health:
  - Adderall prescriptions for adults ages 22 to 44 went up more than 15% between spring 2020 and 2021.
  - Double the 7.4% rise seen the year before.

THRIVE EMERGE

2008 RYAN HAIGHT ACT

- Bans the prescription of controlled substances by telemedicine providers without an in-person examination
- Stimulant medications used for ADHD are classified as Schedule II controlled substances = risk of addiction but medically useful
- Lifted for covid as part of Public Health Emergency (PHE)
- Under PHE, stimulants can be prescribed by telehealth companies

THRIVE EMERGE

WHO/ WHAT CAUSED THE SHORTAGE?

KEY PLAYERS

COVID

Telemedicine startup providers of ADHD meds

THRIVE EMERGE

‘THERE’S GOLD IN THEM THAR HILLS!”

- Enter the for-profit on-line telemedicine providers – e.g.,Cerebral, Done, Ahead
- Pitch deck to investors: image of controlled substances next to the words: “Now is the time to capture growth”, the Wall Street Journal reported.
- Pushing nurse practitioners to prescribe stimulants to as many 30 new patients a day, in online evaluations that lasted as little as 10 minutes.
- Cerebral: by late 2021:
  - Served more than 200,000 patients,
  - Had signed the gymnast Simone Biles as “chief impact officer”
  - Valued at an eye-popping $4.8bn.

https://amp.theguardian.com/society/2023/jan/29/adderall-shortage-us-adhd-ritalin-drugs



THRIVE EMERGE

WHO/ WHAT CAUSED THE SHORTAGE?

- KEY PLAYERS
- COVID
- Telemedicine startup providers of ADHD meds
- DEA/ FDA

THRIVE EMERGE

DEA/ FDA

- Regulate/ limit:
  - the production and distribution of stimulant medication by pharma
  - how many pills a pharmacy can dispense at once
  - how frequently patients can refill their prescriptions.
- Base it on *prior* year's stimulant utilization data
- Have no way of rapidly updating data regarding increased demand
- Issued a warning in October 2022 of the Adderall shortage
- Mismatch: DEA quotas and production numbers
- Never adjusted production quotas

THRIVE EMERGE

WHO/ WHAT CAUSED THE SHORTAGE?

- KEY PLAYERS
- COVID
- Telemedicine startup providers of ADHD meds
- DEA/ FDA
- Pharma

THRIVE EMERGE

PHARMA'S ROLE

- Takeda – 2022 – production slowed by packing delays secondary to personnel problems
- Now corrected?

THRIVE EMERGE

HOW LONG WILL IT LAST?

- Adderall shortage enters its sixth month
- No sign of relief yet
- Supply problems could last well into the spring
- Alvogen manufactures generic Adderall and expects its shortage to last until mid-April
- Teva Pharmaceuticals -- country's largest Adderall supplier -- reports that recovery dates are TBD (to be determined).

THRIVE EMERGE

IS THE FEAR OF AN ADDICTIONS BACKLASH REALISTIC?

STIMULANT RX DO NOT EQUAL PAIN KILLERS

THRIVE EMERGE

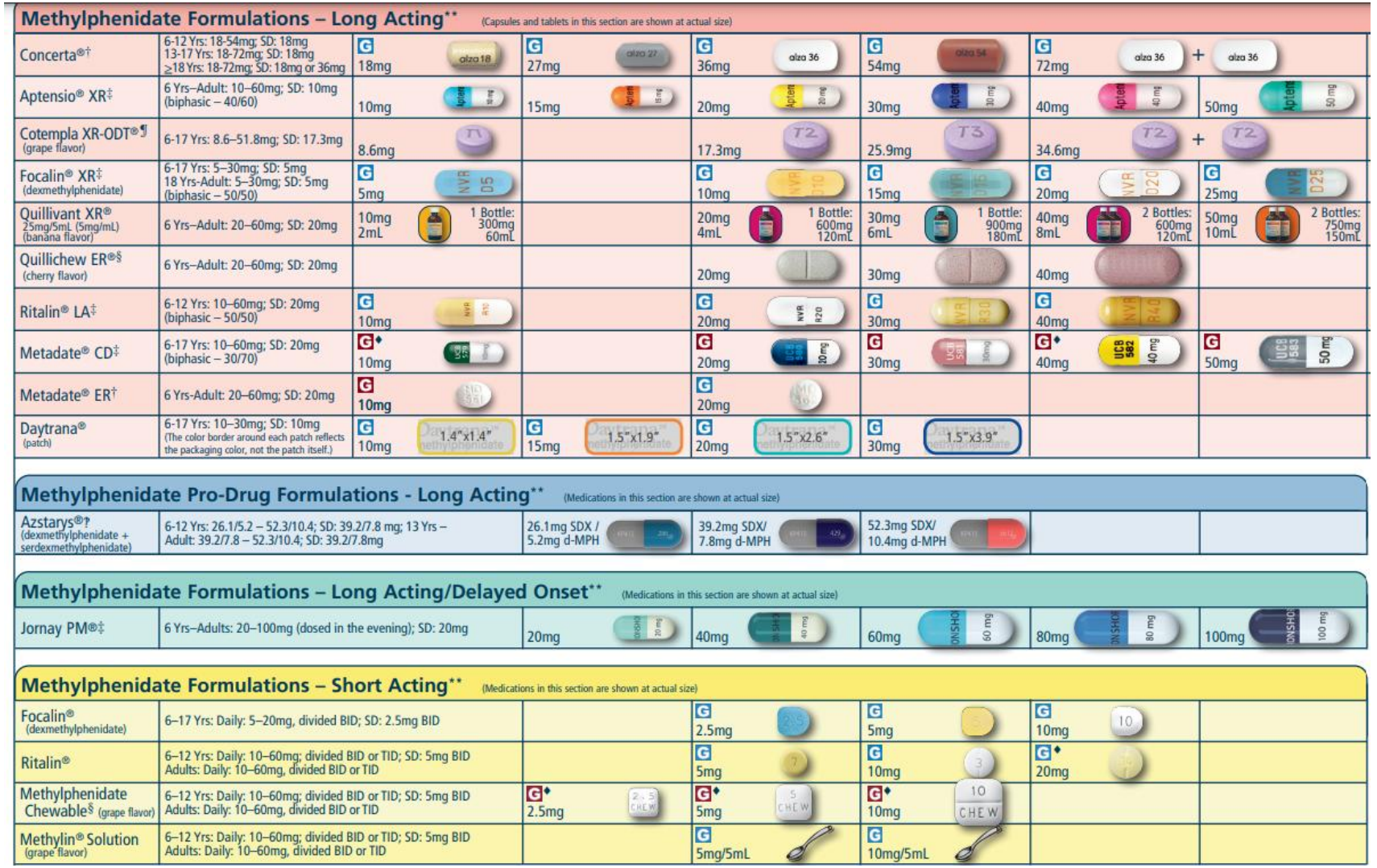
WHAT CAN I DO ABOUT IT?

- Call many pharmacies
- Change meds
- Coordinate with your med provider
- Use non-medication treatments: sleep, exercise, EF coaching
- Baltimore Banner - Sarah True

  https://www.thebaltimorebanner.com/community/public-health/adhd-medication-shortage-causes-BDDT6SACVZDGXE7ZIAZOONAQ7Q/

THRIVE EMERGE

WHAT ARE ALTERNATIVES FOR MY CURRENT MEDICATION?



Methylphenidate Formulations – Long Acting**

(Capsules and tablets in this section are shown at actual size)

Concerta®†	6-12 Yrs: 18-54mg; SD: 18mg 13-17 Yrs: 18-72mg; SD: 18mg ≥18 Yrs: 18-72mg; SD: 18mg or 36mg	G 18mg	G 27mg	G 36mg	G 54mg	G 72mg	G 36mg + 36mg
Aptensio® XR‡	6 Yrs–Adult: 10–60mg; SD: 10mg (biphasic – 40/60)	10mg	15mg	20mg	30mg	40mg	50mg
Cotempla XR-ODT®¶ (grape flavor)	6-17 Yrs: 8.6–51.8mg; SD: 17.3mg	8.6mg		17.3mg	25.9mg	34.6mg	T2 + T2
Focalin® XR‡ (dexmethylphenidate)	6-17 Yrs: 5–30mg; SD: 5mg 18 Yrs-Adult: 5–30mg; SD: 5mg (biphasic – 50/50)	G 5mg		G 10mg	G 15mg	G 20mg	G 25mg
Quillivant XR® 25mg/5mL (5mg/mL) (banana flavor)	6 Yrs–Adult: 20–60mg; SD: 20mg	10mg 2mL 1 Bottle: 300mg 60mL		20mg 4mL 1 Bottle: 600mg 120mL	30mg 6mL 1 Bottle: 900mg 180mL	40mg 8mL 2 Bottles: 600mg 120mL	50mg 10mL 2 Bottles: 750mg 150mL
Quillichew ER®§ (cherry flavor)	6 Yrs–Adult: 20–60mg; SD: 20mg			20mg	30mg	40mg	
Ritalin® LA‡	6-12 Yrs: 10–60mg; SD: 20mg (biphasic – 50/50)	G 10mg		G 20mg	G 30mg	G 40mg	
Metadate® CD‡	6-17 Yrs: 10–60mg; SD: 20mg (biphasic – 30/70)	G♦ 10mg		G 20mg	G 30mg	G♦ 40mg	G 50mg
Metadate® ER†	6 Yrs-Adult: 20–60mg; SD: 20mg	G 10mg		G 20mg			
Daytrana® (patch)	6-17 Yrs: 10–30mg; SD: 10mg (The color border around each patch reflects the packaging color, not the patch itself.)	G 10mg 1.4"x1.4"	G 15mg 1.5"x1.9"	G 20mg 1.5"x2.6"	G 30mg 1.5"x3.9"		

Methylphenidate Pro-Drug Formulations - Long Acting**

(Medications in this section are shown at actual size)

Azstarys®† (dexmethylphenidate + serdexmethylphenidate)	6-12 Yrs: 26.1/5.2 – 52.3/10.4; SD: 39.2/7.8 mg; 13 Yrs – Adult: 39.2/7.8 – 52.3/10.4; SD: 39.2/7.8mg	26.1mg SDX / 5.2mg d-MPH	39.2mg SDX/ 7.8mg d-MPH	52.3mg SDX/ 10.4mg d-MPH		

Methylphenidate Formulations – Long Acting/Delayed Onset**

(Medications in this section are shown at actual size)

Jornay PM®‡	6 Yrs–Adults: 20–100mg (dosed in the evening); SD: 20mg	20mg	40mg	60mg	80mg	100mg

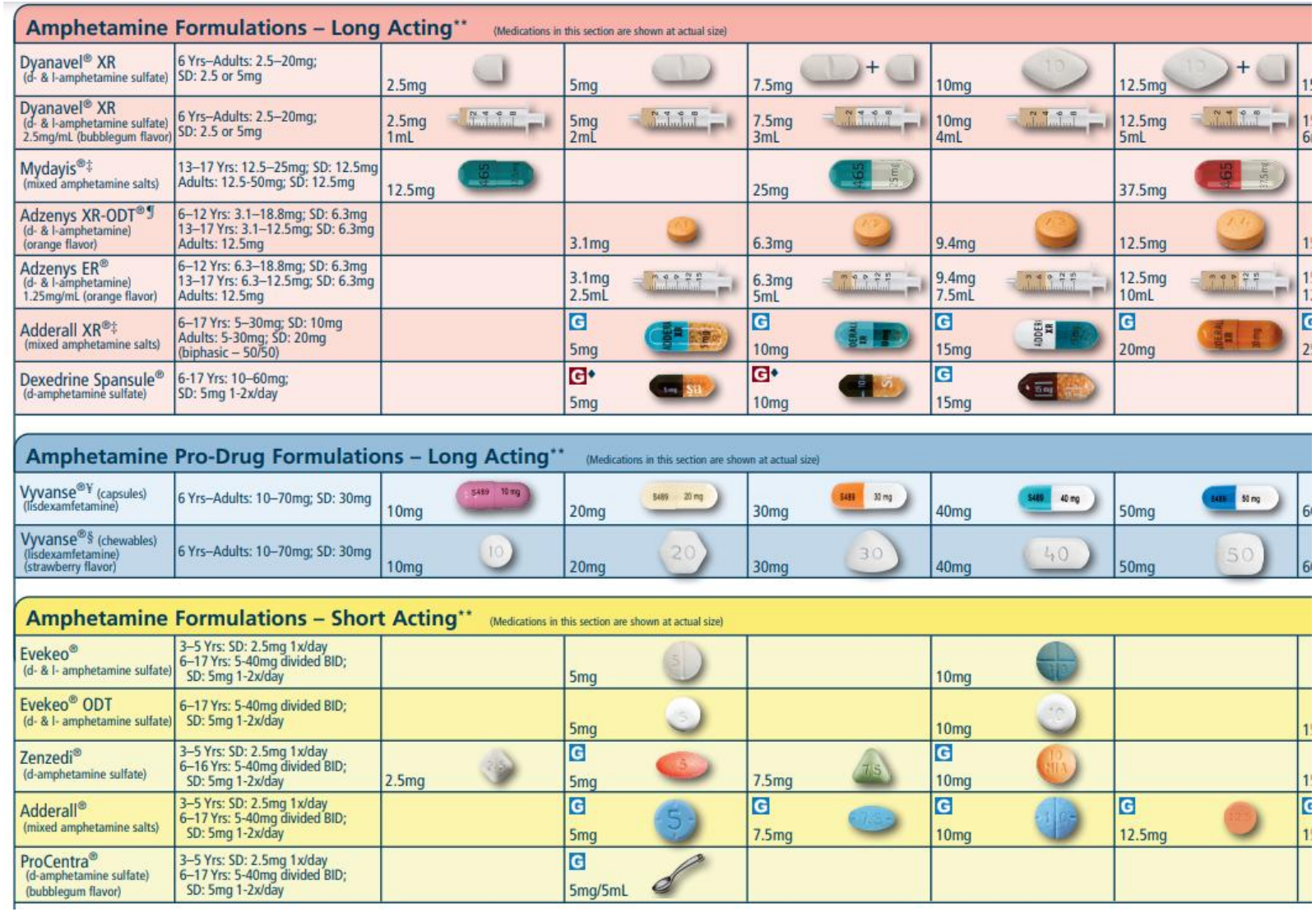
Methylphenidate Formulations – Short Acting**

(Medications in this section are shown at actual size)

Focalin® (dexmethylphenidate)	6–17 Yrs: Daily: 5–20mg, divided BID; SD: 2.5mg BID		G 2.5mg	G 5mg	G 10mg	
Ritalin®	6–12 Yrs: Daily: 10–60mg; divided BID or TID; SD: 5mg BID Adults: Daily: 10–60mg, divided BID or TID		G 5mg	G 10mg	G♦ 20mg	
Methylphenidate Chewable§ (grape flavor)	6–12 Yrs: Daily: 10–60mg; divided BID or TID; SD: 5mg BID Adults: Daily: 10–60mg, divided BID or TID	G♦ 2.5mg	G♦ 5mg	G♦ 10mg		
Methylin® Solution (grape flavor)	6–12 Yrs: Daily: 10–60mg; divided BID or TID; SD: 5mg BID Adults: Daily: 10–60mg, divided BID or TID		G 5mg/5mL	G 10mg/5mL		

THRIVE EMERGE

WHAT ARE ALTERNATIVES FOR MY CURRENT MEDICATION?



Amphetamine Formulations – Long Acting** (Medications in this section are shown at actual size)

Dyanavel® XR (d- & l-amphetamine sulfate)	6 Yrs–Adults: 2.5–20mg; SD: 2.5 or 5mg	2.5mg	5mg	7.5mg	10mg	12.5mg	
Dyanavel® XR (d- & l-amphetamine sulfate) 2.5mg/mL (bubblegum flavor)	6 Yrs–Adults: 2.5–20mg; SD: 2.5 or 5mg	2.5mg 1mL	5mg 2mL	7.5mg 3mL	10mg 4mL	12.5mg 5mL	
Mydayis®‡ (mixed amphetamine salts)	13–17 Yrs: 12.5–25mg; SD: 12.5mg Adults: 12.5-50mg; SD: 12.5mg	12.5mg		25mg		37.5mg	
Adzenys XR-ODT®¶ (d- & l-amphetamine) (orange flavor)	6–12 Yrs: 3.1–18.8mg; SD: 6.3mg 13–17 Yrs: 3.1–12.5mg; SD: 6.3mg Adults: 12.5mg		3.1mg	6.3mg	9.4mg	12.5mg	
Adzenys ER® (d- & l-amphetamine) 1.25mg/mL (orange flavor)	6–12 Yrs: 6.3–18.8mg; SD: 6.3mg 13–17 Yrs: 6.3–12.5mg; SD: 6.3mg Adults: 12.5mg		3.1mg 2.5mL	6.3mg 5mL	9.4mg 7.5mL	12.5mg 10mL	
Adderall XR®‡ (mixed amphetamine salts)	6–17 Yrs: 5–30mg; SD: 10mg Adults: 5-30mg; SD: 20mg (biphasic – 50/50)		G 5mg	G 10mg	G 15mg	G 20mg	
Dexedrine Spansule® (d-amphetamine sulfate)	6-17 Yrs: 10–60mg; SD: 5mg 1-2x/day		G◆ 5mg	G◆ 10mg	G 15mg		

Amphetamine Pro-Drug Formulations – Long Acting** (Medications in this section are shown at actual size)

Vyvanse®¥ (capsules) (lisdexamfetamine)	6 Yrs–Adults: 10–70mg; SD: 30mg	10mg	20mg	30mg	40mg	50mg	
Vyvanse®§ (chewables) (lisdexamfetamine) (strawberry flavor)	6 Yrs–Adults: 10–70mg; SD: 30mg	10mg	20mg	30mg	40mg	50mg	

Amphetamine Formulations – Short Acting** (Medications in this section are shown at actual size)

Evekeo® (d- & l- amphetamine sulfate)	3–5 Yrs: SD: 2.5mg 1x/day 6–17 Yrs: 5-40mg divided BID; SD: 5mg 1-2x/day		5mg		10mg		
Evekeo® ODT (d- & l- amphetamine sulfate)	6–17 Yrs: 5-40mg divided BID; SD: 5mg 1-2x/day		5mg		10mg		
Zenzedi® (d-amphetamine sulfate)	3–5 Yrs: SD: 2.5mg 1x/day 6–16 Yrs: 5-40mg divided BID; SD: 5mg 1-2x/day	2.5mg	G 5mg	7.5mg	G 10mg		
Adderall® (mixed amphetamine salts)	3–5 Yrs: SD: 2.5mg 1x/day 6–17 Yrs: 5-40mg divided BID; SD: 5mg 1-2x/day		G 5mg	G 7.5mg	G 10mg	G 12.5mg	
ProCentra® (d-amphetamine sulfate) (bubblegum flavor)	3–5 Yrs: SD: 2.5mg 1x/day 6–17 Yrs: 5-40mg divided BID; SD: 5mg 1-2x/day		G 5mg/5mL				

THRIVE EMERGE

THE DOCTOR/ PATIENT RELATIONSHIP

THRIVE EMERGE

The medication management relationship

is a critical part of the autist's/ ADHDer's mental health care.

THRIVE EMERGE

THE MED MANAGER SHOULD:

- View rx as a necessary but not sufficient part of a wrap-around treatment plan.
- Have a network of health care professionals to address complex needs – EF coach, speech pathologist, OT, DBT practitioner
- Have extensive experience working with the neurodivergent population
- Be familiar with the cognitive, emotional and sensory nuances that mark these wonderful brains.
- Use visual aids for visual processors.

THRIVE EMERGE

THE MED MANAGER SHOULD:

- Communicate in concrete terms, close-ended questions. Open-ended questions require subtle social and emotional interpretations.
- Work with rigid perceptions – explain risks/ benefits, fill in the info gaps. Uncertainty/ unknown produces anxiety/ resistance to care.
- Define concrete, “red flag” target symptoms = “benchmarks for progress” – eg., focus better in class, improve my grades, have less depression, reduce the number of episodes of “overwhelm”

THRIVE EMERGE

THE MED MANAGER SHOULD:

- Be sensitive to challenges with interoception = the ability to scan one's inner environment, detect cognitive and emotional data, name those phenomena and report out.
- If a patient responds, "I don't know", they might truly not know.
- Coach the patient to attend to these interoceptive cues – "What do you feel in your body and where? How strong is it?"
- Get assistance from a collateral source = might be the only way to get these questions answered.

THRIVE EMERGE

BRAIN OVERLOAD:
A COMMON ASD/ ADHD CHALLENGE

THRIVE
EMERGE

MY PET THEORY: DATA OVERLOAD



THRIVE EMERGE

ONE HUNDRED COMPUTERS





THRIVE
EMERGE



CONSCIOUS DATA

SUBCONSCIOUS DATA

THRIVE EMERGE



THRIVE EMERGE

SUBCONSCIOUS DATA

CONSCIOUS DATA

WHAT DO WE NEED TO LEARN TO REGULATE?



EMOTIONS



Cognitions



Sensory Perceptions



Processing Speed



Motivation



Impulses

THRIVE EMERGE

TREATING SPECIFIC CONDITIONS

THRIVE EMERGE

TREATING SPECIFIC CONDITIONS

OVERWHELM/ EMOTIONAL DYSREGULATION

- Case 1: Suzanne – suitcase
- Case 2: Craig – HS
- Challenges
  - Top down-bottom up regulation of emotions
  - Very freq part of EF/ ASD
  - Critical: w/o emot reg > no fdn on which to build the rest of your life skills
- Medications
  - Heal the brain (new nerve cells + less inflammation) -- Antidepressants
  - Calm the brain -- Atypical antipsychotics/ Benzodiazepines/ Mood stabilizers/ Beta blockers
- Other Treatments – DBT, talk therapy. Good sleep/ EXERCISE

THRIVE EMERGE

TREATING SPECIFIC CONDITIONS

EXECUTIVE DYSFUNCTION/ ADHD

- Case 1: Alyssa – academic challenges
- Special Case 2: James – stuttering/ “freight train of thoughts”
- Prefrontal cortex dysfunction – the seat of the executive functions.
- Symptoms: impairments in initiation, motivation, focus, planning, follow through, impulse control, emotional regulation and foresight, shift/ cognitive flexibility
- Medications
  - Stimulant Rx – methylphenidates (e.g., Ritalin) or amphetamines (e.g., Adderall)
  - Choice: immediate vs sustained release
  - Non-stimulant rx: Strattera, Qelbree (SNRI), Kapvay, Intuniv
- Other treatments: EF Coaching, Accommodations, Talk therapy, Family Support

THRIVE EMERGE

TREATING SPECIFIC CONDITIONS

DEPRESSION/ SUICIDALITY

- Symptoms: decreased mood, interest, motivation, energy/ rumination, negative self talk/ hopelessness
- Medications – antidepressants, adjunctive meds (e.g., atypical antipsychotics)
- Suicidality – chronic (loss of meaning/ sense of emptiness) vs acute (overwhelm/ emotional dysreg)
- Other Treatments – DBT, talk therapy, family therapy

THRIVE EMERGE

TREATING SPECIFIC CONDITIONS

SOCIAL ANXIETY

- ASD: Missed social cueing, concrete vs abstract thinking, processing speed issues
- Social anxiety can be triggered by this social discomfort > avoidance
- Miss opportunities for social skill building
- Medications: Antidepressants, Atypical antipsychotics (rumination)
- Other treatments: DBT, Social Skills Training, PEER GROUP SETTING – Catalyst for change

THRIVE EMERGE

TREATING SPECIFIC CONDITIONS

SLEEP PROBLEMS

- Causes: rumination, “freight train brain”, sleep apnea, video overuse, poor daily structure/ erratic sleep schedule, depression, sensory sensitivities
- Medication: any sedating medication – frequently: Trazodone
- Other approaches: sleep hygiene, daily structure, video detox, sleep apnea eval, exercise

THRIVE EMERGE

TREATING SPECIFIC CONDITIONS

MASQUERADES – DIAGNOSTIC CONFUSION IN AUTISM

- "Paper People" – Psychosis OR Sensory Overload?
- Persistent Attention Seeking – Histrionic Personality Disorder OR Emotional Dysregulation + Poor Social Awareness + Rigid Thinking
- "I Hear Voices" – Psychosis OR Concrete response requiring further exploration
  - Is the real problem the interviewer or the interviewee?

THRIVE EMERGE

THRIVE EMERGE



- **FREE** FROM THRIVE EMERGE -

NEURODIVERGENT RESOURCES FOR PARENTS

For Parents

- FREE 15-minute consults with Thrive clinicians
- FREE Young Adult Life Functioning Assessment (YALF)
- FREE Virtual Parent Support Group (PSG)
- FREE Executive Function Info Sheet

Scan this QR code for access to your FREE neurodivergent resources

Main Office: (410) 740-3240 / Fax: (443) 276-6640 / www.ThriveEmerge.com

Business Office Mail Only Address:
6925 Oakland Mills Rd #357 Columbia, MD 21045

THRIVE EMERGE


thank you.
THRIVE
EMERGE