

ATTENTION DEFICIT & HYPERACTIVITY DISORDER:

DIAGNOSIS AND TREATMENT THROUGHOUT THE LIFESPAN

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ADHD: DSM V DIAGNOSIS

- Inattention Symptoms:
 - 6 or more for children; 5 or more for adults
 - Present for > 6 months and inappropriate for developmental level
 - Fails to give close attention to details
 - Difficulty with sustained attention
 - Not listening when spoken to directly
 - Does not follow through with activities
 - Disorganized
 - Avoids tasks requiring mental effort
 - Often easily distracted
 - Often forgetful
 - Often misplacing things

ADHD: DSM V DIAGNOSIS

- Hyperactive and Impulsive Symptoms:
 - 6 or more for children; 5 or more for adults
 - Present for > 6 months and inappropriate for developmental level
 - Fidgets and squirms
 - Leaves seat when expected to be seated
 - Runs/Climbs when not appropriate
 - Unable to participate in leisure activities quietly
 - Often “on the go” as if “driven by a motor”
 - Talks excessively
 - Blurts out answer before question completed
 - Interrupts and intrudes on others
 - Trouble waiting for his/her turn

ADHD: DSM V DIAGNOSIS

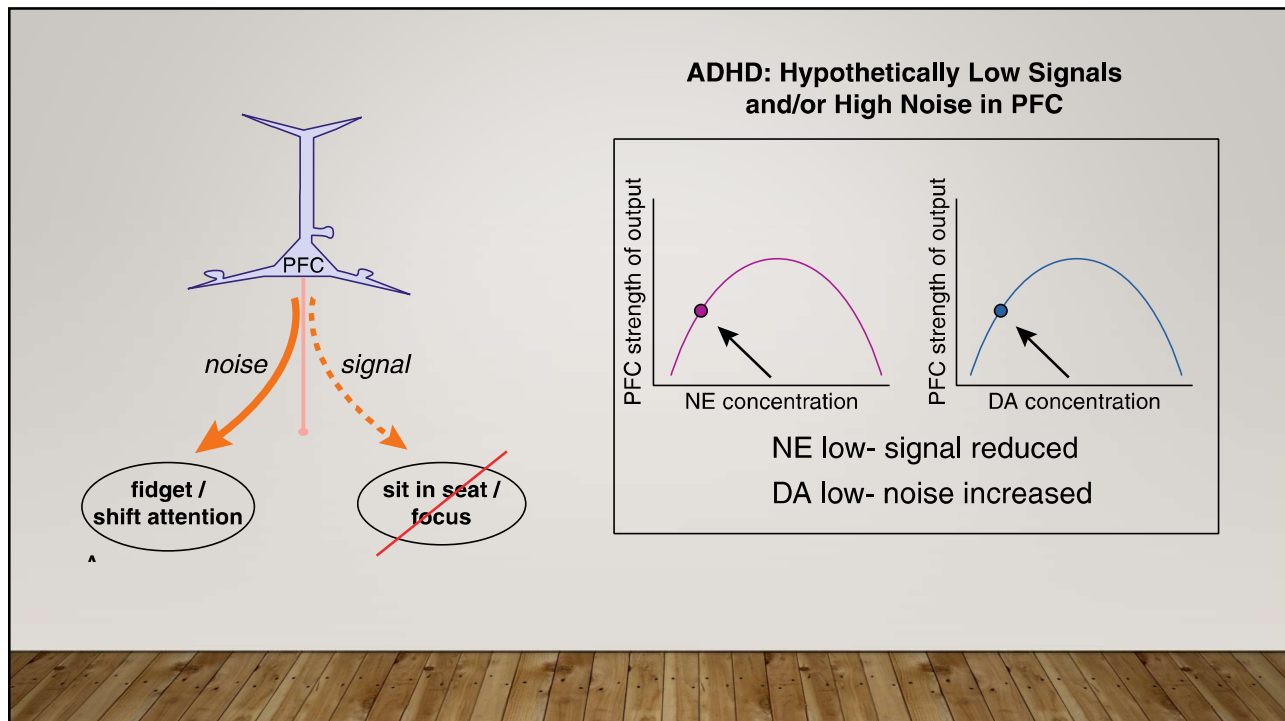
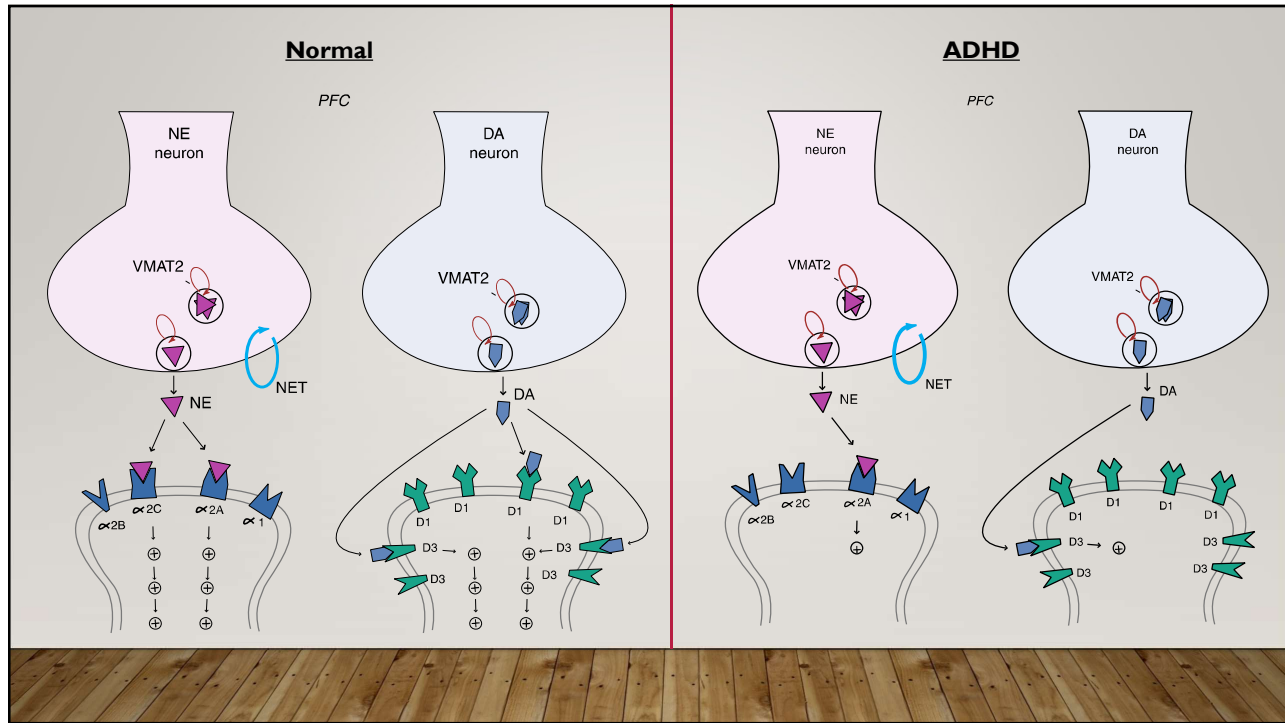
- Other criteria that must be met:
 - Several inattentive or hyperactive-impulsive symptoms present before age 12 years.
 - Several symptoms are present in two or more setting.
 - There is clear evidence that the symptoms interfere with, or reduce the quality of, social, school, or work functioning.
 - The symptoms are not better explained by another mental disorder

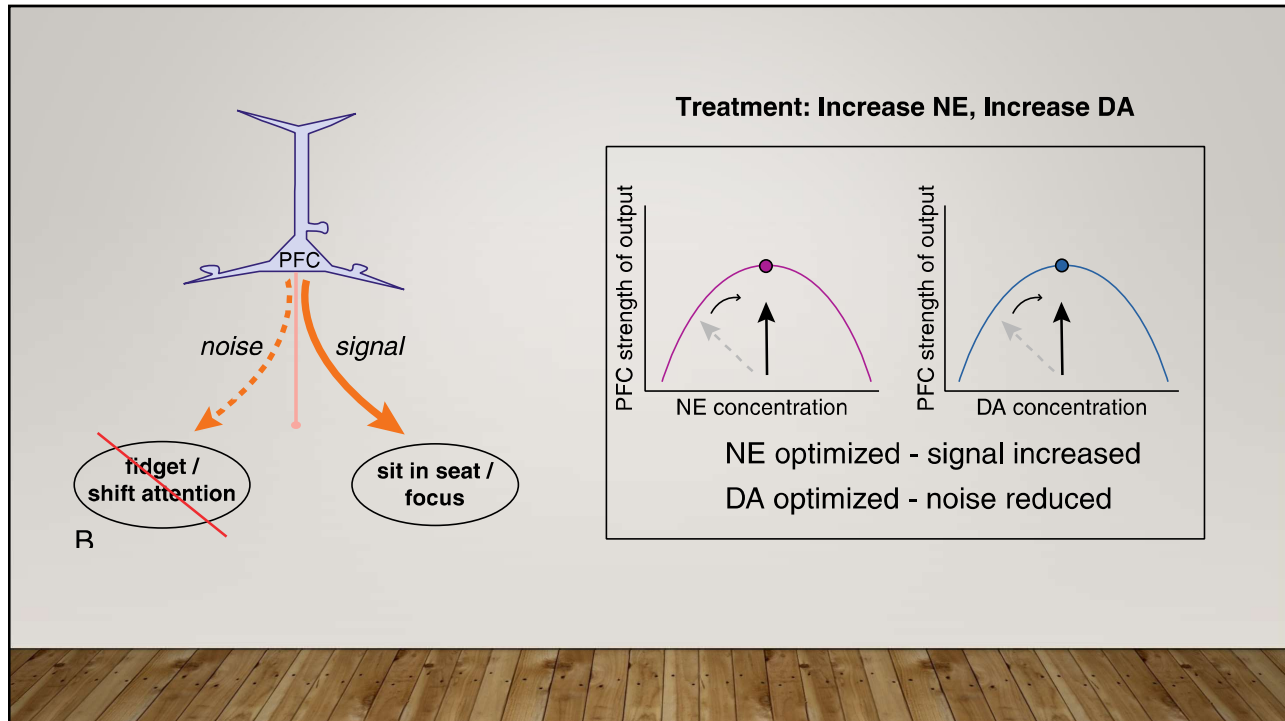
ADHD: DSMV DIAGNOSIS

- Clarifier:
 - Predominantly Inattentive Type
 - Predominantly Hyperactive/Impulsive Type
 - Combined Type

NEUROBIOLOGY OF ADHD

- Areas of the brain involved:
 - Frontal Lobe (DLPFC, ACC, PMC) ← **Where we intervene**
 - Striatum
 - Thalamus
- Neurotransmitters → Receptors involved:
 - Dopamine → D1 ← **Decreases the noise**
 - Norepinephrine → alpha-2 ← **Increases desired signal**





STIMULANTS: THE GOLD STANDARD TREATMENT

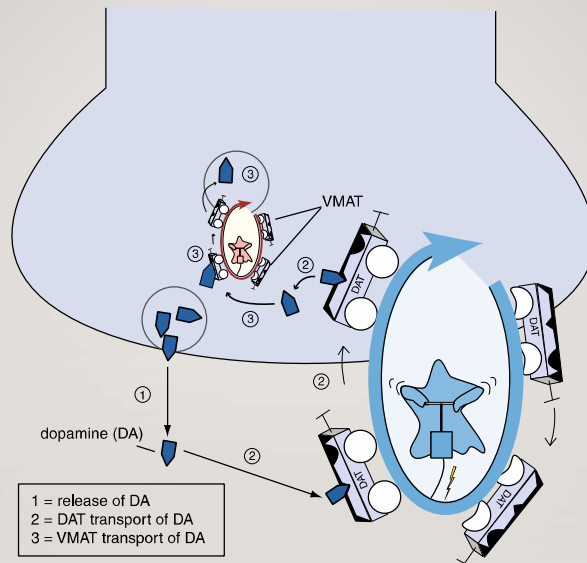
AMPHETAMINES

- Adderall IR / Adderall XR
- Vyvanse

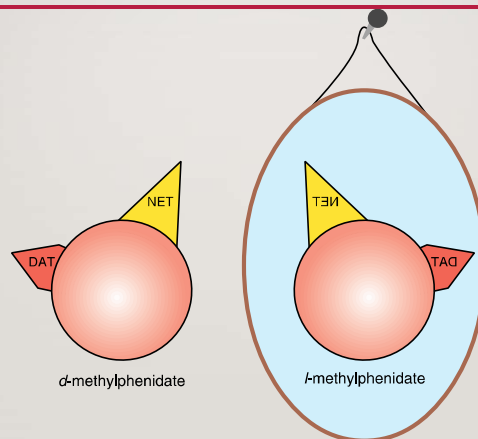
METHYLPHENIDATES

- Ritalin IR / Ritalin LA
- Concerta
- Focalin IR / Focalin XR

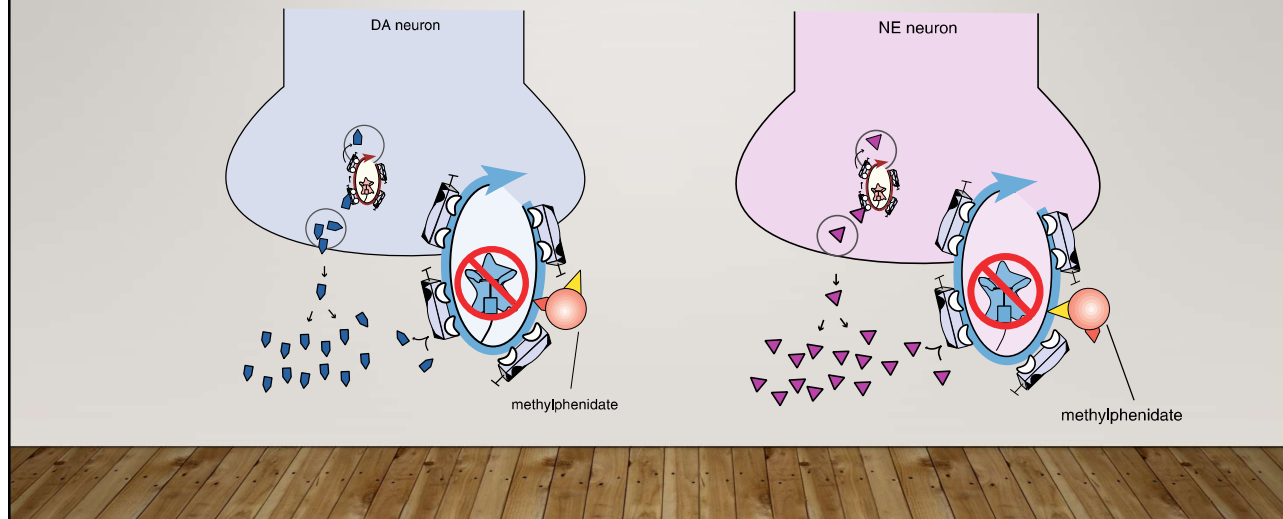
REGULATION OF DOPAMINE AND NOREPINEPHRINE



METHYLPHENIDATES



METHYLPHENIDATES



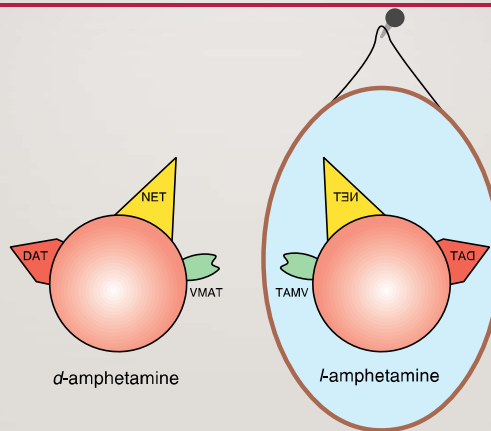
METHYLPHENIDATE DOSING

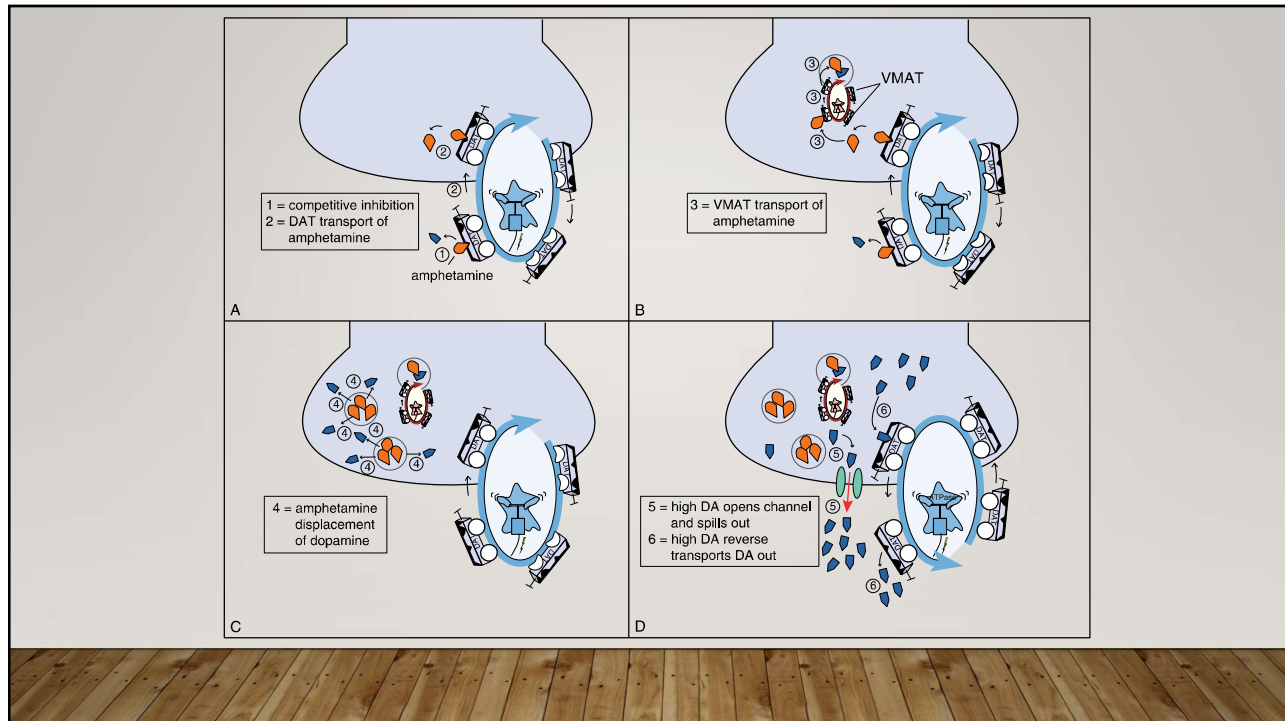
- Ritalin IR:
 - Start 5mg po qAM with optional 5mg po q Noon booster
 - Max 60mg daily
- Ritalin LA:
 - Start 20mg po qAM
 - Max 60mg daily

METHYLPHENIDATE DOSING

- Concerta:
 - Start 18mg po qAM
 - Max 72mg daily
- Focalin:
 - Start 2.5mg po qAM and 2.5mg q Noon
 - Max 20mg daily
- Focalin LA:
 - Start 10-20mg po qAM
 - Max 40mg daily

AMPHETAMINES





AMPHETAMINE DOSING

- Adderall IR:
 - Start 5mg po qAM with optional 5mg po q Noon booster
 - Max daily 60mg daily
- Adderall XR
 - Start 5mg po qAM
 - Max daily 60mg daily
- Vyvanse
 - Start 20mg po qAM
 - Max 70mg daily

AMPHETAMINE DOSING

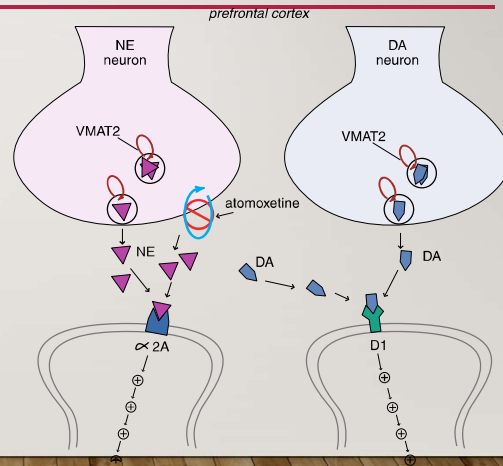
- Most common combinations:
 - Adderall IR po qAM + Adderall IR po q Afternoon booster
 - Use teacher/parent/patient reports to adjust AM dose vs. booster
 - Adderall XR po qAM + Adderall IR po q Afternoon booster
 - Use teacher/parent/patient reports to adjust AM dose vs. booster
 - Vyvanse po qAM + Adderall IR po q Afternoon booster
 - Use teacher/parent/patient reports to adjust AM dose vs. booster

STIMULANT SIDE EFFECTS

- Decreased appetite
 - Take medication AFTER morning meal
 - Take afternoon booster AFTER midday meal
 - Recommended: Monitor height/weight on growth curve
- Decreased ability to sleep
 - Do not take IR formulations within 6 hours of wanting to go to bed
 - Do not take XR formulations within 10 hours of wanting to go to bed
- Jitteriness- much like a hyper-caffeinated state

NON-STIMULANT TREATMENT OPTIONS

- Atomoxetine:
 - Start 10 – 25mg daily; Max 100mg daily
 - Potent NET inhibitor
 - NO effect in the nucleus accumbens
 - No addiction risk



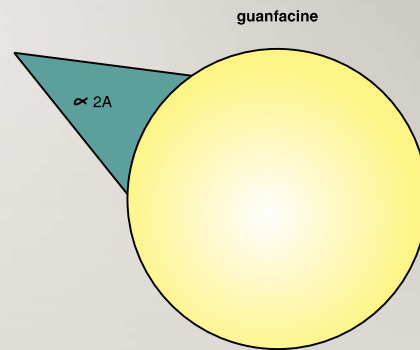
NON-STIMULANT TREATMENT OPTIONS

- Wellbutrin XL:
 - Start 150mg po qAM; Max 450mg po qAM
 - Weak NE and DA reuptake inhibitor
 - Strong antidepressant properties- use when depression causing issues with concentration

NON-STIMULANT TREATMENT OPTIONS

- Guanfacine (Tenex; Intuniv ER):

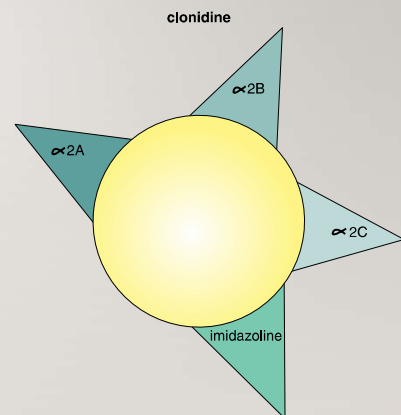
- Start 0.5mg po daily; Max 2mg po daily
- Alpha-2a agonist- directly binds receptors targeted by NE
- Very selective- less side effects

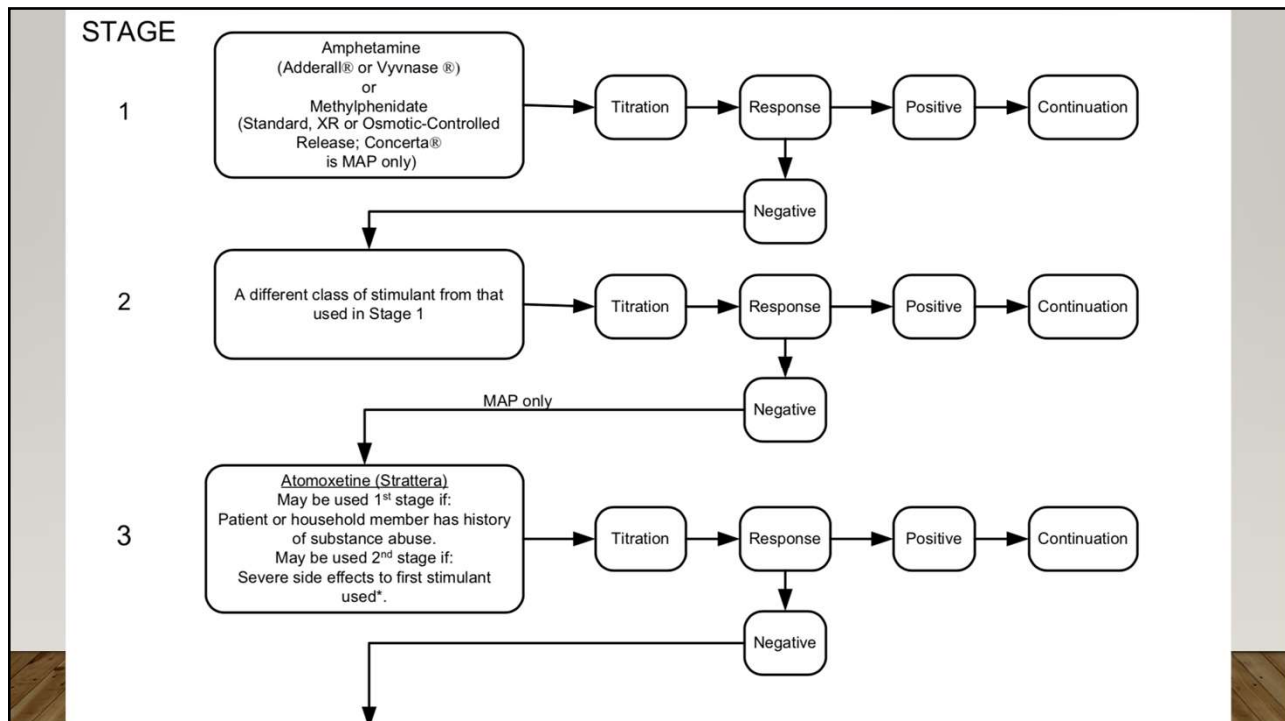
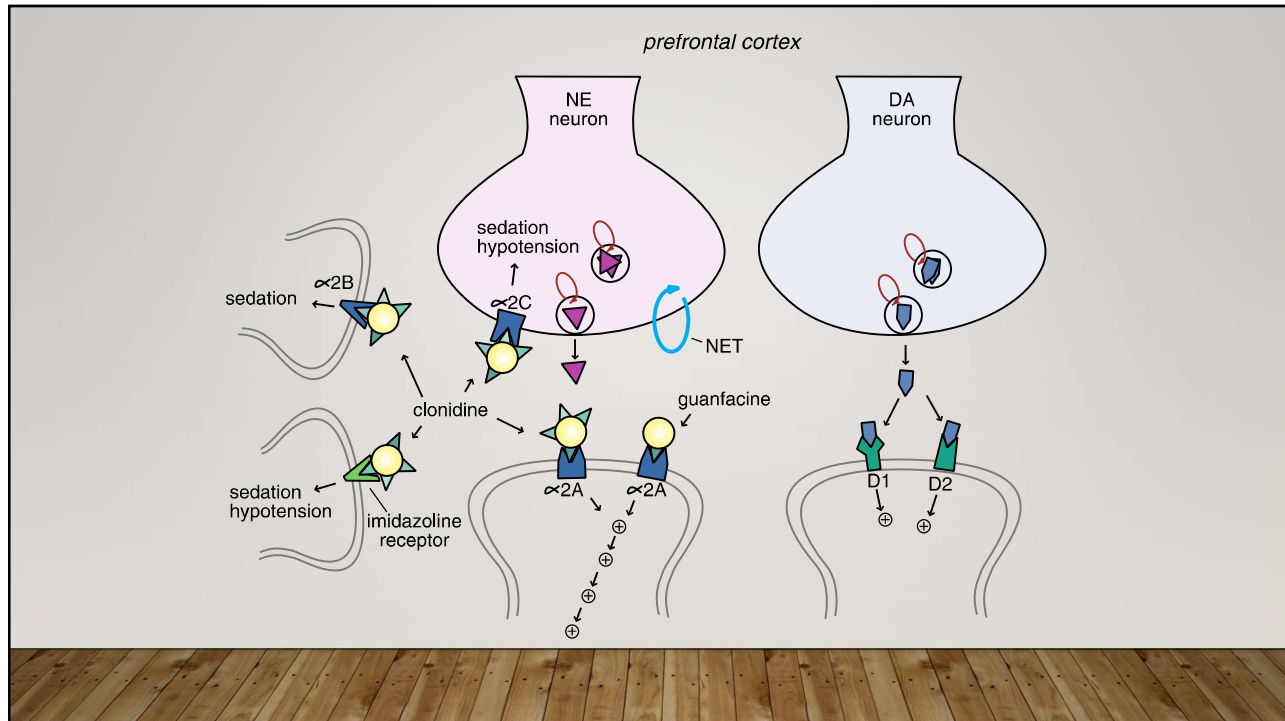


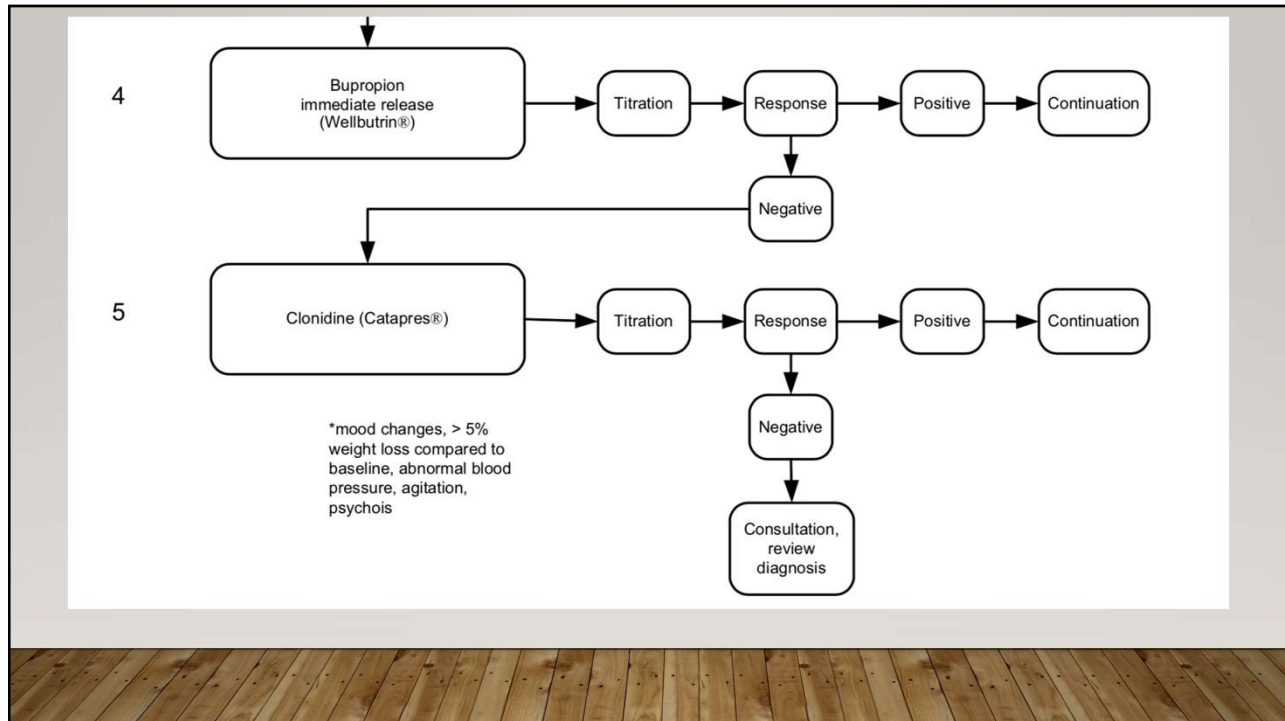
NON-STIMULANT TREATMENT OPTIONS

- Clonidine:

- Start 0.1mg po daily; Max 2.4mg po daily
- Alpha-2a agonist- directly binds receptors targeted by NE
- Less selective- more side effects







QUESTIONS
