

## Week 7 Case Study

### Select one drug to treat the diagnosis(es) or symptoms

- Methylphenidate IR Ritalin
- Initial dosage in patients under 6 years of age: it is recommended to start with 5mg po twice daily with food (breakfast and lunch). This medication can be titrated weekly in 5mg- to 10mg increments with a maximum dosage of 60 mg/day (Stahl, 2021).

### List medication class and mechanism of action for the chosen medication.

- Methylphenidate (IR) is an immediate release neuroscience – based nomenclature: dopamine, norepinephrine reuptake inhibitor and releaser (DN-RIRe) (Stahl, 2021). Methylphenidate promotes NE and DA release and inhibits NE and DA reuptake (Rosenthal & Burchum, 2021). Methylphenidate is a central nervous system (CNS) stimulant that increases the activity of the CNS neurons with two indications ADHD and narcolepsy (Rosenthal & Burchum, 2021). Increasing the effects of dopamine (DA) and norepinephrine (NE) in the dorsolateral and prefrontal cortex areas of the brain can potentially enhance attention, concentration, executive functions and alertness. Likewise, enhancements in the basal ganglia may reduce hyperactivity (Stahl, 2021).

### Write the prescription in prescription format.

**Towana Devoe, PMHNP-BC NPI# 1010101010 DEA#BD1010101**

- Patient Name: EB                      Date: 06/18/2024
- Allergies: NKDA                      Date of birth:
- Medication: Methylphenidate (IR) (Ritalin)    Strength: 5mg    Quantity: 60
- Indications for use: Attention-Deficit/Hyperactivity Disorder, Combined Presentation
- Directions for use: Take 1 tablet PO in the morning with food and 1 tablet PO with lunch
- Refills: 0
- Prescriber Signature: Towana Devoe, BSN, PMHNP