Atomoxetine (Strattera)

Indications:

- FDA approved for children ages 6-17 for treatment of ADHD
- Also approved for adults with ADHD and can be used off-label for depression

Mechanism of Action:

- Selective norepinephrine reuptake inhibitor
- Metabolized primarily via CYP2D6
- Half-life is around 5 hours
- Avoid use with MAOIs
- Caution in use with 2D6 inhibitors such as fluoxetine, paroxetine, and quinidine (ensure a slower titration and do not exceed 80 mg/day)

Dosage forms:

10 mg, 18 mg, 25 mg, 40 mg, 60 mg, 80 mg, and 100 mg

Dosing guidelines:

- Children > 70 kg: Start 40 mg every morning for three days. Increase to 80 mg qAM (recommended maintenance dose). May increase to 100 mg qAM after 2-4 weeks, if needed. Max dose = 100 mg/day.
- Children < 70 kg: Start 0.5 mg/kg qAM for 3 days and increase by 1.2 mg/kg qAM (recommended maintenance dose). Max dose = 1.4 mg/kg/day or 100 mg/day (whichever is less) and can increase to this dose after 2-4 weeks at maintenance dose if needed.
- Can divide to BID dosing for better GI tolerability
- Can dose at bedtime if sedation is an issue

Side effects:

- Most common for children: headache, abdominal pain, nausea, vomiting, decreased appetite and fatigue
- Most common for adults: nausea, dry mouth, decreased appetite, insomnia, constipation, fatigue, erectile dysfunction, abdominal pain, dizziness, and urinary hesitancy
- Serious side effects (rare): suicidal ideation for children and teens, severe hepatic injury including elevated enzymes and jaundice, and increased blood pressure/heart rate

Clinical Pearls:

- Appears to be more effective at improving attention rather than managing hyperactivity
- Must order baseline LFT's before initiating
- Usually used as second- or third-line in management of ADHD; evidence has shown that it is less
 effective in treating core ADHD symptoms compared to stimulants
- Consider use of atomoxetine if there are concerns for drug misuse or diversion

• Consider use of atomoxetine in children who do not respond to stimulants, where "dopaminergic" effects of stimulants could be causing issues with exacerbating tics, anxiety or stereotypic movements.

Overall:

- Advantages: No abuse potential, decreases risk of insomnia or perpetuating anxiety, and unlikely to worsen tics
- Disadvantages: Generally, less effective than stimulants and takes 2-4 weeks to work

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References: The Maudsley Prescribing Guidelines in Psychiatry 13th edition, The Carlat Medication Factbook for Psychiatric Practice 5th edition, and the Carlat Child Medication Factbook for Psychiatric Practice from 2018.