



Carlat Publishing
**The Child Medication Fact Book for Psychiatric Practice
Second Edition (2023)**
CME Post-Test Study Guide

Learning Objectives

1. Describe some of general tips related to dosing, side effects, pharmacokinetics, and drug interactions as related to psychiatric medications for children and adolescents.
2. Describe the dosing, side effects, pharmacokinetics, and drug interactions of many of the most commonly prescribed ADHD medications in children and adolescents.
3. Describe the dosing, side effects, pharmacokinetics, and drug interactions of many of the most commonly prescribed antidepressants in children and adolescents.
4. Describe the dosing, side effects, pharmacokinetics, and drug interactions of many of the most commonly prescribed antipsychotics in children and adolescents.
5. Describe the dosing, side effects, pharmacokinetics, and drug interactions of many of the most commonly prescribed anxiolytic and hypnotic medications in children and adolescents.
6. Describe the dosing, side effects, pharmacokinetics, and drug interactions of many of the most commonly prescribed complementary treatments in children and adolescents.
7. Describe the dosing, side effects, pharmacokinetics, and drug interactions of many of the most commonly prescribed mood stabilizers in children and adolescents.
8. Describe the dosing, side effects, pharmacokinetics, and drug interactions of many of the most commonly prescribed substance use medications in children and adolescents.

CME questions

1. Infants and younger children have which of the following pharmacokinetic changes compared to adults? (LO #1)
 - a. Increased absorption
 - b. Decreased plasma protein binding
 - c. Increased hepatic metabolism
 - d. Infants and younger children have all of the above

2. Which may be most appropriate to use first-line in a pediatric patient with ADHD and a potential for substance misuse or diversion? (LO #2)

- a. Dextroamphetamine
- b. Methylphenidate
- c. Serdexmethylphenidate/dexmethylphenidate
- d. Viloxazine

3. Which of the following is a benefit of short-acting stimulants? (LO #2)

- a. Releases steady amount of drug over 6 to 12 hour period
- b. Decrease in rebound irritability compared to long-acting stimulants
- c. Minimizes appetite suppression between mealtimes
- d. Interference with sleeping more likely compared to long-acting stimulants

4. The approximate equivalent dosage regimen conversion of Dexedrine 10 mg TID to Adderall is: (LO #2)

- a. Adderall 2.5 mg TID
- b. Adderall 5 mg TID
- c. Adderall 10 mg BID
- d. Adderall 15 mg BID

5. The approximate equivalent dosage regimen conversion of Concerta 36 mg daily to methylphenidate is: (LO #2)

- a. Methylphenidate 7.5 mg daily
- b. Methylphenidate 15 mg daily
- c. Methylphenidate 30 mg daily
- d. Methylphenidate 36 mg daily

6. Which of the following is available as an extended release (ER) oral suspension? (LO #2)

- a. Amphetamine
- b. Atomoxetine
- c. Clonidine
- d. Dexmethylphenidate

7. Guanfacine acts as: (LO #2)

- a. An inhibitor of dopamine and norepinephrine
- b. A central acting, selective alpha-2 adrenergic agonist
- c. A selective norepinephrine reuptake inhibitor
- d. A stimulant

8. All of the following are available as a patch except: (LO #2)

- a. Clonidine
- b. Dextroamphetamine
- c. Lisdexamfetamine
- d. Methylphenidate

9. Which of the following does not require a gradual taper when attempting to discontinue? (LO #3)

- a. Citalopram
- b. Fluoxetine
- c. Paroxetine
- d. Sertraline

10. Which of the following has a pediatric FDA indication to treat generalized anxiety disorder (GAD) but is best reserved as a second-line option? (LO #3)

- a. Bupropion
- b. Duloxetine
- b. Escitalopram
- c. Trazodone

11. Which of the following has highest risk of causing hypertension? (LO #3)

- a. Citalopram
- b. Paroxetine
- c. Sertraline
- d. Venlafaxine

12. Which of the following is available as an oral solution? (LO #3)

- a. Citalopram
- b. Desvenlafaxine
- c. Fluvoxamine
- d. Trazodone

13. Which of the following is most likely to cause weight gain? (LO #3)

- a. Bupropion
- b. Desvenlafaxine
- c. Mirtazapine
- d. Selegiline

14. Which of these is available as a once weekly delayed-release capsule? (LO #3)

- a. Citalopram
- b. Fluoxetine
- c. Fluvoxamine
- d. Paroxetine

15. Omeprazole will increase citalopram levels through inhibition of: (LO #3)

- a. CYP2C8
- b. CYP2C19
- c. CYP2D6
- d. CYP3A4

16. The Abnormal Involuntary Movement Scale (AIMS) can be used to assess for signs of: (LO #4)

- a. Akathisia
- b. Epilepsy
- c. Tardive dyskinesia
- d. Tic disorders

17. Which of the following has a pediatric FDA indication for Tourette's disorder? (LO #4)

- a. Chlorpromazine
- b. Clozapine
- c. Haloperidol
- d. Perphenazine

18. Which of the following is available as a sublingual tablet? (LO #4)

- a. Asenapine
- b. Lurasidone
- c. Olanzapine
- d. Quetiapine

19. For patients on clozapine, which of the following is monitored via a REMS program? (LO #4)

- a. ANC
- b. A1c
- c. BP
- d. ECG

20. Which of the following are adverse effects of quetiapine in pediatric patients? (LO #4)

- a. Hypotension or rarely hypertension
- b. Sedation
- c. Weight gain
- d. All of the above

21. Which of the following has a pediatric FDA indication for irritability in autism despite problematic metabolic effects and neuronal toxicity with brain volume change and cortical thinning ? (LO #4)

- a. Perphenazine
- b. Quetiapine
- c. Risperidone
- d. Ziprasidone

22. Aripiprazole is available as which of the following? (LO #4)

- a. Extended-release capsule
- b. Intravenous injectable
- c. Oral disintegrating tablet
- d. All of the above

23. Which of the following is most appropriate to be used adjunctively for anxiety in pediatric patients who exhibit partial response to SSRIs or SNRIs? (LO #5)

- a. Buspirone
- b. Clonazepam
- c. Lorazepam
- d. Ramelteon

24. Which of the following is most appropriate to use in a pediatric patient with PTSD-associated sleep disturbances? (LO #5)

- a. Diphenhydramine
- b. Lorazepam
- c. Prazosin
- d. Ramelteon

25. Which of the following is an adverse effect of diphenhydramine? (LO #5)

- a. Ataxia
- b. Constipation
- c. Dry mouth
- d. All of the above

26. Propranolol's mechanism of action is: (LO #5)

- a. Selective beta-1 antagonist
- b. Selective beta-2 antagonist
- c. Non-selective beta-1 agonist and beta-2 agonist
- d. Non-selective beta-1 antagonist and beta-2 antagonist

27. Which of the following is available as an injectable? (LO #5)

- a. Buspirone
- b. Doxylamine
- c. Hydroxyzine
- d. Ramelteon

28. Doxylamine is available as which of the following? (LO #5)

- a. Caplet
- b. Injectable
- c. Oral liquid
- d. Tablet

29. Which herbal insomnia agent may have an unpleasant odor to some? (LO #6)

- a. Chamomile tea
- b. Kava
- c. Melatonin
- d. Valerian

30. Magnesium may be used off-label to reduce symptoms of: (LO #6)

- a. Anxiety
- b. Bipolar disorder
- c. Schizophrenia
- d. Tourette's disorder

31. A common adverse effect of melatonin is: (LO #6)

- a. Asthma exacerbations
- b. Increased bleeding
- c. Priapism
- d. Vivid dreams

32. L-methylfolate may decrease serum levels of: (LO #6)

- a. Carbamazepine
- b. Escitalopram
- c. Phenytoin
- d. Verapamil

33. When omega-3 fatty acids are used for ADHD, typical dosages are: (LO #6)

- a. 1 to 2 grams daily
- b. 1200 to 1500 mg daily
- c. 2 to 3 grams daily
- d. 2400 to 3600 mg daily

34. Oral contraception effectiveness can be reduced by: (LO #6)

- a. S-adenosyl-L-methionine
- b. Saffron
- c. St. John's wort
- d. Vitamin D

35. N-acetylcysteine (NAC) may be sometimes be used as an add-on to treat: (LO #6)

- a. Psychosis
- b. Depression
- c. Insomnia
- d. Nail biting

36. Lavender can cause which of the following adverse effects? (LO #6)

- a. Fishy aftertaste
- b. Graying of skin
- c. Gynecomastia
- d. Vitamin B12 deficiency

37. Lamotrigine causes which of the following adverse effect? (LO #7)

- a. Cardiac arrhythmias
- b. Sedation
- c. Stevens-Johnson Syndrome
- d. All of the above

38. Which of the following should be monitored in patients taking lithium? (LO #7)

- a. DEXA scan (DXA)
- b. Electroencephalogram (EEG)
- c. Liver function tests (LFTs)
- d. Thyroid-stimulating hormone (TSH)

39. In the Treatment of Early Age Mania (TEAM) study, which of the following was found to be the most effective in treating acute mania in children and adolescents? (LO #7)

- a. Carbamazepine
- b. Lithium
- c. Risperidone
- d. Valproic acid

40. Which of the following increases the risk of polycystic ovary syndrome (PCOS)? (LO #7)

- a. Lamotrigine
- b. Lithium
- c. Oxcarbazepine
- d. Valproic acid

41. Which of the following mood stabilizers is not available as an oral liquid formulation? (LO #7)

- a. Carbamazepine
- b. Lithium
- c. Lamotrigine
- d. Oxcarbazepine

42. Which of the following may cause drug rash with eosinophilia and systemic symptoms (DRESS)? (LO #7)

- a. Lamotrigine
- b. Valproic acid
- c. Both lamotrigine and valproic acid
- d. Neither lamotrigine nor valproic acid

43. Lithium serum levels may be decreased by: (LO #7)

- a. Caffeine
- b. Hydrochlorothiazide
- c. Ibuprofen
- d. Lisinopril

44. Which of the following is a true statement about the nicotine patch? (LO #8)

- a. Should apply new patch every 12 hours
- b. Can cut patch in half if needed
- c. Does not cause local skin reactions
- d. Rotate patch site at each application time

45. The mechanism of action of varenicline is: (LO #8)

- a. GABA agonist
- b. Nicotinic-cholinergic receptor agonist
- c. Nicotine receptor partial agonist
- d. Opioid agonist and antagonist

46. Disulfiram cannot be started until how many hours after an alcoholic drink? (LO #8)

- a. 4 to 8 hours
- b. 12 to 36 hours
- c. 24 to 48 hours
- d. 48 to 72 hours

47. Methadone may have a half-life of up to how many hours? (LO #8)

- a. 26 hours
- b. 59 hours
- c. 78 hours
- d. 97 hours

48. Infants receiving intravenous (IV) naloxone should receive what dose? (LO #8)

- a. 0.1 mg/kg/dose
- b. 0.2 mg/kg/dose
- c. 4 mg
- d. 8 mg

49. Naltrexone's long-acting intramuscular injection is dosed every: (LO #8)

- a. 1 week
- b. 2 weeks
- c. 4 weeks
- d. 12 weeks

50. Nicotine nasal spray should be avoided in patients with: (LO #8)

- a. Diabetes
- b. Hyperlipidemia
- c. Nasal polyps
- d. Tape allergy