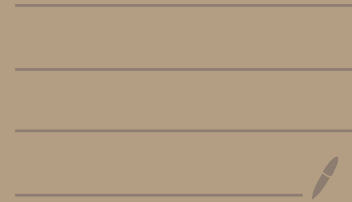


Questions from Lippincott Pharmacology

Collected by : Abdalrhman Froukh



1) A 55-year-old teacher began to experience changes in mood. He was losing interest in his work and lacked the desire to play his daily tennis match. He was preoccupied with feelings of guilt, worthlessness, and hopelessness. In addition to the psychiatric symptoms, the patient complained of muscle aches throughout his body. Physical and laboratory tests were unremarkable. After 6 weeks of therapy with fluoxetine, his symptoms resolved. However, the patient complains of sexual dysfunction. Which of the following drugs might be useful in this patient?

- A. Fluvoxamine.
- B. Sertraline.
- C. Citalopram.
- D. Mirtazapine.
- E. Lithium.

2) A 51-year-old woman with symptoms of major depression also has angle-closure glaucoma. Which of the following antidepressants should be avoided in this patient?

- A. Amitriptyline.
- B. Sertraline.
- C. Bupropion.
- D. Mirtazapine.
- E. Fluvoxamine.

3) Which antidepressant has, as its two principle mechanisms of action, 5-HT_{2A} receptor antagonism and α_2 receptor antagonism?

- A. Fluoxetine.
- B. Doxepin.
- C. Maprotiline.
- D. Mirtazapine.
- E. Selegiline.

4) Which agent is best known to have the side effect of decreasing the thyroid function of the patient being chronically treated with this agent?

- A. Carbamazepine.
- B. Lithium.
- C. Valproic acid.
- D. Chlorpromazine.
- E. Lurasidone.

5) An adolescent male is newly diagnosed with schizophrenia. Which of the following antipsychotic agents may have the best chance to improve his apathy and blunted affect?

- A. Chlorpromazine.
- B. Fluphenazine.
- C. Haloperidol.
- D. Risperidone.
- E. Thioridazine.

6) Which one of the following antipsychotics has been shown to be a partial agonist at the dopamine D2 receptor?

- A. Aripiprazole.
- B. Clozapine.
- C. Haloperidol.
- D. Risperidone.
- E. Thioridazine.

7) Which antipsychotic has the most sedative potential and is sometimes questionably used as a hypnotic agent in certain clinical settings?

- A. Fluphenazine.
- B. Thiothixene.
- C. Quetiapine.
- D. Haloperidol.
- E. Iloperidone.

8) A 30-year-old male patient who is treated with haloperidol for his diagnosis of schizophrenia is considered to be well-managed symptomatically for his psychotic symptoms. However, he is reporting restlessness, the inability to sit still at the dinner table, and his family notices that he is pacing up and down the hallway frequently. Of the following, which is the best medication to treat this antipsychotic-induced akathisia?

- A. Benztropine.
- B. Dantrolene.
- C. Amoxapine.
- D. Bromocriptine.
- E. Propranolol.

9) Which of the following antipsychotic agents is most associated with the possibility of a hematological dyscrasia such as agranulocytosis in a patient being treated for schizophrenia?

- A. Chlorpromazine.
- B. Buspirone.
- C. Lithium.
- D. Clozapine.
- E. Asenapine.

10) Modest improvement in the memory of patients with Alzheimer's disease may occur with drugs that increase transmission at which of the following receptors?

- A. Adrenergic.
- B. Cholinergic.
- C. Dopaminergic.
- D. GABAergic.
- E. Serotonergic.

11) Peripheral adverse effects of levodopa, including nausea, hypotension, and cardiac arrhythmias, can be diminished by including which of the following drugs in the therapy?

- A. Amantadine.
- B. Ropinirole.
- C. Carbidopa.
- D. Tolcapone.
- E. Pramipexole.

12) Which medication is a glutamate receptor antagonist that can be used in combination with an acetylcholinesterase inhibitor to manage the symptoms of Alzheimer's disease?

- A. Rivastigmine.
- B. Ropinirole.
- C. Fluoxetine.
- D. Memantine.
- E. Donepezil.

Answers with Explanation :

1) D. Mirtazapine is largely free from sexual side effects. However, sexual dysfunction commonly occurs with SSRIs as well as with TCAs, and SNRIs.

2) A. Because of its potent antimuscarinic activity, amitriptyline should not be given to patients with glaucoma because of the risk of acute increases in intraocular pressure. The other antidepressants all lack antagonist activity at the muscarinic receptor.

3) D. Mirtazapine is the only antidepressant with this combination of mechanisms of action that are believed to contribute to its therapeutic effects.

4) B. Lithium is best known for causing a drug-induced hypothyroidism in patients after long-term use. Though it is possible with other mood stabilizers, lithium has the most reported cases, and thus, thyroid function tests should be performed at baseline and during follow-up to monitor for this possible effect.

5) D. Risperidone is the only antipsychotic on the list that has some reported benefit in improving the negative symptoms of schizophrenia. It is a second-generation antipsychotic, and the other drugs listed are first-generation antipsychotic agents.

6) A. Aripiprazole is the agent that acts as a partial agonist at D2 receptors. Theoretically, the drug would enhance action at these receptors when there is a low concentration of dopamine and would block the actions of high concentrations of dopamine.

7) C. Quetiapine has strong antihistaminergic effects causing sedation and is sometimes used at low doses as a sedative-hypnotic, even though this use is considered off-label. The other antipsychotic agents listed are weaker at blocking the histamine receptor and therefore are not as sedating.

8) E. Propranolol, a β -blocker, is considered the drug of choice for the management of antipsychotic-induced akathisia. Benztropine is more effective for pseudoparkinsonism and acute dystonias.

9) D. Clozapine is the only antipsychotic medication that has a black box warning and a risk of agranulocytosis in approximately 1% of the patients treated. This requires regular monitoring of white blood cell counts.

10) B. AChE inhibitors, such as rivastigmine, increase cholinergic transmission in the CNS and may cause a modest delay in the progression of Alzheimer's disease.

11) C. Carbidopa inhibits the peripheral decarboxylation of levodopa to dopamine, thereby diminishing the gastrointestinal and cardiovascular side effects of levodopa.

12) D. When combined with an acetylcholin- esterase inhibitor, memantine has modest efficacy in keep- ing patients with Alzheimer's disease at or above baseline for at least 6 months and may delay disease progression.

13) E. Modafinil is the only drug listed that is approved for narcolepsy.

Good luck