

Quiz 4 Psychopharmacology

1. Which of the following would help the PMHNP differentiate between NMS and serotonin syndrome?

Clonus

Temp of 101.7

Muscle Rigidity

Low Vitamin B12

A febrile patient with muscle rigidity may have either NMS or serotonin syndrome. Clonus is associated with serotonin syndrome. Low Vitamin B12 does not help narrow the differential diagnosis in this clinical scenario.

2. Which of the following psychoactive medications is most likely to be associated with fetal risk?

Valproate

Buspirone

Bupropion

Trazodone

Valproate may produce congenital malformations, lower IQ and greater risk for autism spectrum disorder in children.

3. A patient was recently started on a dopamine antagonist, and complains of breast tenderness and milky discharge. What is the most likely explanation for the symptoms?

Dopamine transmission in the tuberoinfundibular pathway

Dopamine transmission in the mesolimbic pathway

Dopamine transmission in the nigrostriatal pathway

Dopamine increases throughout the basal ganglia

4. Pharmacogenetic testing shows that a 26 year old female with MDD is a CYP450 2D6 slow metabolizer. This may require reduced dosing or awareness of drug-drug interactions to minimize potential drug toxicity. Which of the following medications is the theoretical safest choice for treating MDD in this patient given the test results?

Citalopram

Vortioxetine

Venlafaxine

Paroxetine

Venlafaxine, Vortioxetine and Paroxetine are primarily substrates for CYP2D6. Citalopram is metabolized by CYP3A4 and CYP2C19. A CYP2D6 slow metabolizer phenotype would not affect the metabolism of Citalopram.

5. Kerry is a 19-year-old female with Bipolar disorder about to start on Lithium. Several lab values are recommended prior to the initiation of Lithium. Which of the following listed below are part of the lab panel the PMHNP would order?

Pregnancy test

LFT's

Lithium level

Full body skin exam to document pre-existing rashes.

Pregnancy test. Lithium is a known teratogen.

6. A patient is started on lamotrigine for bipolar depression. The patient complained of a rash comprised of blistering skin and mouth sores after a dose increase. The blood work reveals normal renal and liver function. Which type of drug rash is most likely?

Stevens-Johnson syndrome

Atopic dermatitis

Psoriasis

DRESS syndrome

7. The PMHNP in the ED is evaluating a 68-year-old woman who was recently diagnosed with mild cognitive impairment and cannot remember the name of the medication that she has recently started 1 week ago. The patient is complaining of increased heart rate, sweating, and muscle spasms progressively worsening for the last 3 days. Which neurotransmitter is associated with this adverse effect?

Acetylcholine

Gamma-aminobenzoic acid (GABA)

Serotonin

Dopamine

8. Sunny is a 50-year-old female who presents to the clinic with a recent ECG tracing. Her QTC is recorded at 327 ms. Mary is on Citalopram 40 mg daily x 3 years secondary to generalized anxiety disorder. Given this information, you decide to do what?

Do nothing

Repeat the ECG in 1 month to monitor for prolonged QTC

Decrease the citalopram to 20mg daily

Switch to the bioequivalent of Escitalopram at 40mg daily

A QTC of 388 ms is considered normal. Persons over 60 are limited to a daily dose of Citalopram 20mg given the potential risk of prolonged QTC.

9. Jena is a 32-year-old female who presented to the emergency room with severe weakness, lethargy and an AST/ALT of 660/776 U/L. Which of the following could have contributed to this laboratory result?

Kava

Vitamin C

Vitamin B6

St. John's wort

Kava has the potential for severe liver injury.

10. Joelle is a 19-year-old college student who desires pharmacologic treatment for GAD. Which of the following is the best choice for Joelle?

Buspirone

Haloperidol

Bupropion

Atomoxetine

Buspirone (Buspar) is the best choice given the list provided was devoid of SSRI's, SNRI's or Benzodiazepines as needed.

11. When providing psychoeducation to the parents of a 20-year-old male with psychosis, which of the following is considered a good prognostic indicator?

Substance induced

Early onset

First degree family member with schizophrenia

Delayed treatment with antipsychotics

12. Layne, a client of yours, has started a "Juice cleanse diet". Layne is taking Sertraline for depression. Layne reports that his diet includes several glasses of grapefruit juice a day. As a PMHNP you know which of the following?

Grapefruit juice may increase the serum concentration of Sertraline.

Grapefruit juice does not influence CYP 3A4 substrates.

Grapefruit juice is a potent CYP2D6 Inhibitor

Grapefruit juice may decrease the serum concentration of Sertraline.

Grapefruit juice is a well known CYP 3A4 inhibitor and therefore would potentially increase the serum concentration of Sertraline (a CYP 3A4 substrate).

13. Which of the following is true regarding Benign Ethnic Neutropenia (BEN) in regards to Clozapine treatment?

BEN is more common in non-Caucasian ethnic groups with darker skin.

Patients with BEN are at increased risk for developing clozapine induced neutropenia.

BEN is more common in women.

All of the statements listed are true.

BEN is more commonly observed in African descent, middle eastern and other non-Caucasian groups with darker skin. It is more common in men and patients with BEN are not at an increased risk of clozapine related neutropenia.