

## Pharmacology 2017 Hesi PN Specialty V2

- 1) A client is being treated for hyperthyroidism with propylthiouracil (PTU). The LPN/LVN knows that the action of this drug is to:
- A. decrease the amount of thyroid stimulating hormone circulating in the blood.
  - B. increase the amount of thyroid-stimulating hormone circulating in the blood.
  - C. increase the amount of T4 and decrease the amount of T3 produced by the thyroid.
  - D. inhibit synthesis of T3 and T4 by the thyroid gland.

D. PTU is an adjunct therapy used to control hyperthyroidism by inhibiting production of thyroid hormones. It is often prescribed in prep for thyroidectomy or radioactive iodine therapy

- 2) A female client with RA takes ibuprofen (motrin) 600mg PO 4xday. To prevent GI bleeding, misoprostol (cytotec) 100mcg PO is prescribed. Which information is most important for the nurse to include in client teaching?
- A. use contraception during intercourse
  - B. ensure the cytotec is taken on an empty stomach
  - C. encourage oral fluid intake to prevent constipation
  - D. take cytotec 30min prior to motrin

A. Use contraception during intercourse.  
Cytotec, a synthetic form of prostaglandin, is classified as pregnancy category X and can act as an abortifacient, so the client should be instructed to use contraception during intercourse to prevent loss of early pregnancy

- 3) Dobutamine (Dobutrex) is an emergency drug most commonly prescribed for a client with which condition?
- A) Shock.
  - B) Asthma.
  - C) Hypotension.

## D) Heart failure

### D. Heart Failure

Dobutamine is a beta-1 adrenergic agonist that is indicated for short term use in cardiac decompensation or heart failure (D) related to reduced cardiac contractility due to organic heart disease or cardiac surgical procedures. Alpha and beta adrenergic agonists, such as epinephrine and dopamine, are sympathomimetics used in the treatment of shock (A). Other selective beta-2 adrenergic agonists, such as terbutaline and isoproterenol, are indicated in the treatment of asthma (B). Although dobutamine improves cardiac output, it is not used to treat hypotension (C).

4) Which medications should the nurse caution the client about taking while receiving an opioid analgesic?

- A. Antacids.
- B. Benzodiazepines
- C. Antihypertensives
- D. Oral antidiabetics

### B. B. Benzodiazepines

Respiratory depression increases with the concurrent use of opioid analgesics and other CNS depressant agents, such as alcohol, barbiturates, and benzodiazepines

5) Which client should the LPN/LVN identify as being at the highest risk for complications during the use of an opioid analgesic?

- A. an older client with type 2 diabetes
- B. A client with chronic rheumatoid arthritis
- C. A client with a open compound fracture
- D. A young adult with inflammatory bowel disease

D. A young adult with inflammatory bowel disease

6) Which change in data indicates to the nurse the desired effect of the angiotensin II receptor antagonist valsartan (Diovan) has been achieved

- A. Dependent edema reduced from +3 to +1
- B. Serum HDL increased from 35 to 55mg/dl
- C. Pulse rate reduced from 150 to 90 beats/min

D. Blood pressure reduced from 160/90 to 130.80

D. D. Blood pressure reduced from 160/90 to 130.80  
angiotensin II receptor antagonist (blocker), prescribed from treatment of  
HTN. The desired effect is a decrease in blood pressure.

7) A client with heart failure is prescribed spironolactone (Aldactone).  
Which information is most important for the LPN/LVN to provide to the  
client about diet modifications?

- A) Do not add salt to foods during preparation.
- B) Refrain for eating foods high in potassium.
- C) Restrict fluid intake to 1000 ml per day.
- D) Increase intake of milk and milk products.

B.

Spironolactone (Aldactone), an aldosterone antagonist, is a potassium-  
sparing diuretic, so a diet high in potassium should be avoided (B),  
including potassium salt substitutes, which can lead to hyperkalemia.  
Although (A) is a common diet modification in heart failure, the risk of  
hyperkalemia is more important with Aldactone. Restriction of fluids (C)  
or increasing milk and milk products (D) are not indicated with this  
prescription.

8) The nurse is assessing the effectiveness of high dose aspirin therapy  
for an 88-year-old client with arthritis. The client reports that she can't  
hear the nurse's questions because her ears are ringing. What action  
should the nurse implement?

- A) Refer the client to an audiologist for evaluation of her hearing.
- B) Advise the client that this is a common side effect of aspirin  
therapy.
- C) Notify the healthcare provider of this finding immediately.
- D) Ask the client to turn off her hearing aid during the exam.

C. Notify the healthcare provider of this finding immediately.

Tinnitus is an early sign of salicylate toxicity. The healthcare provider  
should be notified immediately (C), and the medication discontinued. (A  
and D) are not needed, and (B) is inaccurate.

9) The healthcare provider prescribes naproxen (Naproxen) twice daily

for a client with osteoarthritis of the hands. The client tells the nurse that the drug does not seem to be effective after three weeks. Which is the best response for the nurse to provide?

- A) The frequency of the dosing is necessary to increase the effectiveness.
- B) Therapeutic blood levels of this drug are reached in 4 to 6 weeks.
- C) Another type of nonsteroidal antiinflammatory drug may be indicated.
- D) Systemic corticosteroids are the next drugs of choice for pain relief.

C. Another type of nonsteroidal antiinflammatory drug may be indicated. Individual responses to nonsteroidal antiinflammatory drugs are variable, so (C) is the best response. Naproxen is usually prescribed every 8 hours, so (A) is not indicated. The peak for naproxen is one to two hours, not (B). Corticosteroids are not indicated for osteoarthritis (D).

10) An older client with a decreased percentage of lean body mass is likely to receive a prescription that is adjusted based on which pharmacokinetic process?

- A) Absorption.
- B) Metabolism.
- C) Elimination.
- D) Distribution.

D.

A decreased lean body mass in an older adult affects the distribution of drugs (D), which affects the pharmacokinetics of drugs. Decreased gastric pH, delayed gastric emptying, decreased splanchnic blood flow, decreased gastrointestinal absorption surface areas and motility affect (A) in the older adult population. Decreased hepatic blood flow, decreased hepatic mass, and decreased activity of hepatic enzymes affect (B) in older adults. Decreased renal blood flow, decreased glomerular filtration rate, decreased tubular secretion, and decreased number of nephrons affects (C) in an older adult.

11) A peak and trough level must be drawn for a client receiving antibiotic therapy. What is the optimum time for the LPN/LVN to obtain the trough level?

- A) Sixty minutes after the antibiotic dose is administered.
- B) Immediately before the next antibiotic dose is given.

- C) When the next blood glucose level is to be checked.
- D) Thirty minutes before the next antibiotic dose is given.

B. Immediately before the next antibiotic dose is given.

Trough levels are drawn when the blood level is at its lowest, which is typically just before the next dose is given (B). (A, C, and D) do not describe the optimum time for obtaining a trough level of an antibiotic.

12) A client with Parkinson's disease is taking carbidopa-levodopa (Sinemet). Which observation by the nurse should indicate that the desired outcome of the medication is being achieved?

- A) Decreased blood pressure.
- B) Lessening of tremors.
- C) Increased salivation.
- D) Increased attention span.

B. Lessening of tremors.

Sinemet increases the amount of levodopa to the CNS (dopamine to the brain). Increased amounts of dopamine improve the symptoms of Parkinson's, such as involuntary movements, resting tremors (B), shuffling gait, etc. (A) is a side effect of Sinemet. Decreased drooling would be a desired effect, not (C). Sinemet does not affect (D).

13) A client with congestive heart failure (CHF) is being discharged with a new prescription for the angiotensin-converting enzyme (ACE) inhibitor captopril (Capoten). The LPN/LVN discharge instruction should include reporting which problem to the healthcare provider?

- A) Weight loss.
- B) Dizziness.
- C) Muscle cramps.
- D) Dry mucous membranes.

B. Dizziness

The client should be prepared to implement measures for constipation (B) which is the most likely persistent side effect related to opioid use.

Tolerance to opiate narcotics is common, and the client may experience less sedation (A) and respiratory depression (D) as analgesic use continues. Opioids increase the tone in the urinary bladder sphincter, which causes retention (C) but may subside.