

ANSWERS

Therapeutic Monitoring and Lab Correlations

1. Answer: **Notify the physician immediately and hold the next dose**

Rationale: A lithium level above 1.5 mmol/L indicates toxicity. The nurse should hold the dose and notify the provider.

2. Answer: **Hold the next dose and report the result**

Rationale: A persistent headache may be a sign of developing ototoxicity, and since ototoxicity is largely irreversible, gentamicin should be withdrawn at the first sign of developing ototoxicity. A gentamicin trough should be obtained before the next dose is given when high gentamicin levels are suspected. Analgesics are not indicated until a serious cause of the headache has been ruled out.

3. Answer: **Administer vitamin K as ordered**

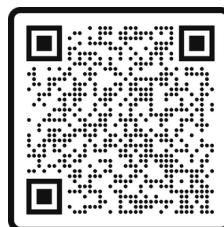
Rationale: INR above 3.5 indicates risk of bleeding; vitamin K reverses warfarin's effects.

4. Answer: **The need to increase the dose**

Rationale: The therapeutic range for phenytoin is 10–20 mcg/mL; the level is subtherapeutic..

5. Answer: **Renal function**

Rationale: Because of the potential for nephrotoxicity and ototoxicity, determine and monitor the patient's renal function and baseline hearing function. Dosing is adjusted based on estimates of creatinine clearance calculated from the patient's serum creatinine level. This assists in keeping a close watch on the patient's renal function and helps prevent toxicity.



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6. Answer: **Withhold the dose and notify the physician**

Rationale: Digoxin toxicity occurs above 2.0 ng/mL; the drug should be held. Bradycardia and visual halos are initial signs of digoxin toxicity.

7. Answer: **Seizures**

Rationale: The therapeutic range is 10–20 mcg/mL; toxicity can cause seizures and tachyarrhythmias.

8. Answer: **Benzotropine (Cogentin)**

Rationale: Concurrent therapy with anticholinergic Parkinson's medications, such as Cogentin, reduces EPS.

9. Answer: **Report findings to the physician**

Rationale: Elevated liver enzymes suggest hepatotoxicity, requiring medical evaluation.

10. Answer: **Place the patient in isolation and notify the physician**

Rationale: Methotrexate can cause bone marrow suppression, increasing infection risk.

