⚕ NHA Pharmacy Technician Practice Exam

Module 1: Medication Safety and Quality Assurance (Questions 1–17)

1. A pharmacy technician receives a prescription for Warfarin 5 mg to be taken once daily. The pharmacy computer flags the patient's profile with a new prescription for Bactrim DS. What is the most critical action the technician should take?

   A. Process the prescription, but place a special warning label on the Warfarin bottle.

   B. Immediately alert the pharmacist because of a significant potential drug interaction.

   C. Change the dose of Warfarin to 2.5 mg to mitigate the interaction risk.

   D. Call the patient to ask if they have taken Bactrim before.

2. A pharmacy intern is preparing a prescription for a liquid suspension. The label reads Zithromax 200 mg/5 mL. The required dose is 400 mg. The intern accidentally pulls the stock bottle for Zithromax 100 mg/5 mL. This is an example of what type of error?

   A. Prescribing error

   B. Dispensing error

   C. Administration error

   D. Monitoring error

3. The pharmacist asks a technician to pull the drug for a new prescription for glipiZIDE. The technician retrieves a stock bottle of glyBURIDE. This is a classic example of confusion between:

   A. Therapeutic equivalents

   B. Look-alike, sound-alike (LASA) medications

   C. Brand and generic names

   D. Schedule II controlled substances

4. A prescription is written for a patient with a known penicillin allergy. The drug dispensed is Cefazolin, a first-generation cephalosporin. Which statement best describes the risk this patient faces?

   A. The risk is negligible because cephalosporins are chemically distinct from penicillins.

   B. The patient faces a high risk of a cross-sensitivity reaction due to similar chemical structures.

   C. The risk is only relevant if the patient is a child.

   D. The risk is only significant if the Cefazolin is given orally.

5. While stocking the shelf, a technician notices that the expiration date for a bottle of Lisinopril 10 mg is $01/2026$. According to standard pharmacy practice, when is the last day this medication can be legally dispensed?

   A. January 1, 2026

   B. January 31, 2026

   C. December 31, 2025

   D. The exact day the month of January begins

6. A physician calls in a prescription for a 3-year-old child using a trailing zero: Digoxin 0.50 mg. The pharmacist is busy, and the technician is asked to clarify the proper protocol. What is the correct protocol regarding trailing zeros in prescriptions?

A. Trailing zeros (e.g., 5.0) are acceptable for all doses to ensure clarity.

B. Trailing zeros must never be used (e.g., 5.0) because they can be misread as 50.

C. Leading zeros (e.g., 0.5) must always be used, but trailing zeros can be used at the prescriber's discretion.

D. Leading zeros must always be used, and trailing zeros must never be used.

7. A technician is asked to check the temperature log for the refrigerator. The log shows a temperature of 10°C. Which action should the technician take? (Note: Recommended refrigerator temperature is between 2°C and 8°C.)

   A. Log the temperature and inform the pharmacist, but take no immediate action.

   B. Immediately move all refrigerated items to an alternative, working refrigerator.

   C. Adjust the thermostat, log the action, and immediately inform the pharmacist.

   D. Discard all medications that were in the refrigerator.

8. A patient reports to the pharmacy that they were given Gabapentin 300 mg instead of their usual 100 mg dose. The patient hasn't taken any yet. What is the pharmacy's immediate course of action regarding medication error reporting?

   A. The pharmacy must contact the prescriber only.

   B. The error must be documented internally and reported to a third-party safety organization, such as ISMP or MedWatch.

   C. The pharmacy must only document the error internally and correct the prescription.

   D. The technician must check the prescription's entry date and time and correct the dosage, then apologize to the patient.

9. Which organization maintains the official "Do Not Use" list of abbreviations to minimize medication errors?

   A. Centers for Disease Control and Prevention (CDC)

   B. Drug Enforcement Administration (DEA)

   C. The Joint Commission (TJC)

   D. U.S. Food and Drug Administration (FDA)

10. A technician notices a recall notice for a specific lot number of hydrocodone/acetaminophen tablets due to super-potent tablets. The pharmacy has a partial bottle of the affected lot. What is the first step the technician should take?

    A. Return the partial bottle to the wholesaler immediately.

    B. Place the recalled drug in a separate, quarantined area and label it "Do Not Use."

    C. Check the inventory to see if the entire lot has been dispensed.

    D. Call all patients who received the recalled lot number.

11. What is the primary purpose of a Drug Utilization Review (DUR) performed by the pharmacist?

    A. To verify the insurance co-pay amount.

    B. To check for drug-drug interactions, allergies, and therapeutic duplication.

    C. To ensure the correct stock bottle was used to fill the prescription.

    D. To report dispensing errors to the state board of pharmacy.

12. The term "Beyond-Use Date" (BUD) is primarily used in which setting or activity?
    A. For dating non-prescription (OTC) medications.
    B. For dating pre-packaged, manufacturer-sealed bottles.
    C. For dating compounded sterile and non-sterile preparations.
    D. For dating Schedule II controlled substances.
13. A pharmacy technician is counting Methadone 10 mg tablets. What specific safety precaution is required when handling this drug?
    A. It must be counted using an automated counting machine only.
    B. It must be counted at the same time every day.
    C. It must be double-checked by a pharmacist, and an accurate, detailed inventory must be maintained (per DEA requirements).
    D. It must be dispensed in its original manufacturer container.
14. The practice of placing high-alert medications in a separate, distinct bin or location, often with special labels, is known as:
    A. Par-level stocking
    B. Tall man lettering
    C. Segregation or sequestering
    D. Formulary management
15. A patient brings in a vial of Humalog insulin and asks, "I know it expires next month, but if I keep it in the fridge, can I use it for a few extra weeks?" What is the most appropriate response, considering drug safety?
    A. Yes, refrigeration extends the shelf life.
    B. Advise the patient to follow the specific manufacturer guidelines regarding stability after first use, which is usually shorter than the expiration date.
    C. Tell the patient to use it until it changes color or becomes cloudy.
    D. Refer them to the FDA for official guidance.
16. A technician is programming a smart infusion pump in an inpatient setting. The pharmacist verifies the order for $1,000 \text{ mL}$ D5W with 20 mEq KCl to infuse at 100 mL/hr. What is the most important safety check the technician should perform before starting the infusion?
    A. Verify the patient's room number.
    B. Check the expiration date on the IV bag.
    C. Ensure the infusion pump rate and volume limit are correctly programmed into the smart pump software.
    D. Confirm the patient's insurance information.
17. A prescriber writes "Take 2 tabs daily p.c." The pharmacy technician should be aware that the abbreviation p.c. means:
    A. Before meals
    B. Every night
    C. After meals
    D. As needed

Module 2: Federal Requirements and Regulatory Compliance (Questions 18–34)

18. The Drug Enforcement Administration (DEA) is primarily responsible for enforcing the laws and regulations related to which category of medications?
    A. Investigational new drugs
    B. Controlled substances
    C. Over-the-counter medications
    D. Prescription devices
19. A patient is prescribed a Schedule III medication for pain. According to federal law, how long after the date of issue is the prescription typically valid?
    A. 7 days
    B. 30 days
    C. 6 months
    D. 1 year
20. A technician needs to order Schedule II controlled substances. Which specific DEA form must the pharmacist or authorized prescriber sign and submit?
    A. DEA Form 106
    B. DEA Form 222
    C. DEA Form 41
    D. DEA Form 224
21. Which federal act mandated that all drug products must be safe and effective?
    A. Pure Food and Drug Act of 1906
    B. Kefauver-Harris Amendment of 1962
    C. Food, Drug, and Cosmetic Act (FDCA) of 1938
    D. Poison Prevention Packaging Act of 1970
22. A patient requests a refill for a Schedule II medication (e.g., Oxycodone). According to federal law, what is the refill limit for a Schedule II prescription?
    A. 5 refills within 6 months
    B. 1 refill
    C. Zero refills
    D. Unlimited refills within 1 year
23. Which document is a mandatory component of the dispensing process for a patient receiving a new prescription for a complex or high-risk medication, such as an estrogen product or an opioid?
    A. Patient Package Insert (PPI)
    B. Medication Guide (MedGuide)
    C. Auxiliary Warning Label
    D. Certificate of Analysis
24. The Poison Prevention Packaging Act (PPPA) of 1970 requires that most oral prescription drugs be dispensed in:

A. Light-resistant containers

B. Airtight containers

C. Child-resistant containers

D. Unit-dose packaging

25. The technician is preparing a patient's profile. The patient requests that their prescription information not be shared with anyone. Which federal act primarily governs the privacy of this patient's health information?

A. HIPAA (Health Insurance Portability and Accountability Act)

B. OSHA (Occupational Safety and Health Administration)

C. FDA (Food and Drug Administration)

D. CSA (Controlled Substances Act)

26. A physician calls in an emergency oral prescription for a Schedule II substance. Which statement reflects the required federal follow-up procedure?

A. The pharmacist can dispense the drug, but the prescription can never be refilled.

B. The prescriber must provide a written, signed prescription within 7 days to the pharmacy.

C. The prescription must be faxed immediately, with a written copy following within 30 days.

D. The pharmacist must refuse to fill the oral prescription.

27. A pharmacy is conducting an inventory of controlled substances. Which schedule requires an exact count (no estimation)?

A. Schedule V

B. Schedule IV

C. Schedule III

D. Schedule II

28. According to federal law, a prescription for a Schedule IV drug (e.g., Lorazepam) may be refilled a maximum of:

A. 3 times within 3 months

B. 5 times within 6 months

C. 1 time within 1 year

D. Unlimited times within 1 year

29. The Occupational Safety and Health Administration (OSHA) primarily protects:

A. The patient from medication errors.

B. Pharmacy employees from workplace hazards, such as exposure to hazardous drugs.

C. The environment from drug waste.

D. The public from drug advertising.

30. A prescription written by a physician in Canada for an American patient is presented to a U.S. community pharmacy. What should the technician tell the patient, regarding federal and most state laws?

A. The pharmacy can fill it if the prescription is in English.

B. The pharmacy must only call the Canadian doctor for verification.

C. The prescription cannot be filled because it was written by a prescriber unlicensed in the U.S.

D. The pharmacy can fill it for a one-time emergency supply only.

31. Tamper-evident packaging is required for virtually all over-the-counter (OTC) products due to which event and subsequent regulation?

A. The 1937 Elixir Sulfanilamide tragedy.

B. The 1962 Thalidomide scandal.

C. The 1982 Tylenol poisonings.

D. The 1970 Controlled Substances Act.

32. What is the DEA number used for?

A. To track the pharmacy's inventory.

B. To identify the manufacturer of a drug.

C. To identify and verify the prescriber when controlled substances are involved.

D. To report dispensing errors to the FDA.

33. Which law established two classes of drugs: Prescription Only (Rx) and Over-the-Counter (OTC)?

A. Food, Drug, and Cosmetic Act of 1938

B. Controlled Substances Act of 1970

C. Durham-Humphrey Amendment of 1951

D. Orphan Drug Act of 1983

34. Under the Controlled Substances Act, the requirement for a physical barrier or locked cabinet for the storage of Schedule II drugs in a pharmacy is primarily intended to prevent:

A. Thermal degradation.

B. Errors in dispensing.

C. Patient confusion.

D. Diversion and theft.

Module 3: Sterile and Non-Sterile Compounding (Questions 35–50)

35. The technician is preparing a non-sterile cream in a compounding lab. Which chapter of the United States Pharmacopeia (USP) primarily outlines the quality standards for this process?

A. USP $<795>$

B. USP $<797>$

C. USP $<800>$

D. USP $<1116>$

36. Which cleaning agent should be used to disinfect the work surface of a Compounding Aseptic Isolator (CAI) before preparing a sterile intravenous (IV) solution?

A. Sterile water

B. 70% Isopropyl Alcohol (IPA)

C. Household bleach

D. Detergent soap

37. A technician is preparing an IV admixture in a Horizontal Laminar Airflow Workbench (LAFW). All manipulations should be performed at least how far inside the hood to ensure proper first air protection?
    A. 1 inch
    B. 6 inches
    C. 12 inches
    D. 3 inches
38. The primary purpose of garbing (donning personal protective equipment, such as gown, shoe covers, and hairnet) before entering a sterile compounding area is to:
    A. Protect the technician from hazardous drugs.
    B. Protect the compounded sterile product (CSP) from contamination introduced by the technician.
    C. Comply with DEA regulations.
    D. Maintain a comfortable temperature inside the compounding area.
39. The most common route of contamination when preparing an IV admixture is:
    A. Contaminated raw materials.
    B. Touch contamination (contact with non-sterile surfaces).
    C. Improperly filtered air.
    D. Faulty equipment.
40. When drawing fluid from a vial for sterile compounding, a technician should insert the needle into the vial stopper at a slight angle to minimize coring. This technique is known as:
    A. Negative pressure technique
    B. Corvette technique
    C. Positive pressure technique
    D. Milking technique
41. A pharmacy technician is compounding a hazardous drug, such as an oncology chemotherapy agent. Which specific USP chapter must be followed to ensure the safety of the personnel and the environment?
    A. USP $<795>$
    B. USP $<797>$
    C. USP $<800>$
    D. USP $<1116>$
42. What is the process of removing pyrogens (fever-producing substances) from glassware and equipment used for sterile preparations called?
    A. Sterilization
    B. Depyrogenation
    C. Filtration
    D. Autoclaving

43. A technician is preparing a non-sterile topical cream. The calculation requires $10 \ text{ g}$ of Drug A. When weighing the ingredient on the scale, the technician must ensure the weight is accurately measured within the acceptable range defined by the:
    A. FDA
    B. DEA
    C. Minimum Weighable Quantity (MWQ)
    D. Beyond-Use Date (BUD)
44. A technician is injecting a sterile diluent into a vial of powdered medication (reconstituting). To prevent the solution from spraying back, the technician should use which of the following techniques?
    A. Vent the vial with a filter needle immediately.
    B. Inject the diluent quickly with maximum force.
    C. Inject the diluent slowly down the side of the vial.
    D. Use a smaller gauge needle.
45. The area where the actual compounding of sterile preparations takes place, such as inside the LAFW or ISO Class 5 hood, is called the:
    A. Segregated Compounding Area (SCA)
    B. Buffer Area
    C. Primary Engineering Control (PEC)
    D. Ante-Area
46. What is the maximum volume that a syringe can be filled to while maintaining measurement accuracy?
    A. It should be filled completely to the plunger stopper.
    B. It should be filled exactly to the labeled capacity.
    C. The volume should not exceed 75-80% of the syringe's capacity.
    D. The volume should not exceed 50% of the syringe's capacity.
47. A technician is preparing a powder mixture for a non-sterile capsule. The powders are of different densities and particle sizes. Which technique is used to ensure the ingredients are uniformly mixed?
    A. Aseptic technique
    B. Geometric dilution
    C. Sterilization
    D. Blending
48. According to USP standards for low-risk compounding, the room air quality directly outside the cleanroom (the Ante-Area) must meet which ISO Class standard?
    A. ISO Class 5
    B. ISO Class 7
    C. ISO Class 8
    D. ISO Class 9
49. When opening an ampule, the technician must use a filter needle for the first draw to prevent the introduction of:

A. Air bubbles
B. Microorganisms
C. Glass shards
D. Incorrect volume

50. What is the highest level of risk assigned to a compounded sterile product (CSP) that involves using non-sterile ingredients or processes and requires terminal sterilization?
A. Low-Risk
B. Medium-Risk
C. High-Risk
D. Immediate-Use

Answer Key

Q	Answer	Module	Explanation Hint
1	B	Safety	**Bactrim (trimethoprim/sulfamethoxazole) is a strong inhibitor of Warfarin metabolism**, leading to increased Warfarin levels and a high risk of major bleeding (hemorrhage). This requires immediate pharmacist intervention.
2	B	Safety	A **dispensing error** occurs when the wrong drug, strength, or dosage form is prepared or given to the patient.
3	B	Safety	**LASA** drugs are a major source of error. The similar spelling and sound of **glipiZIDE** and **glyBURIDE** are a classic example.
4	B	Safety	A small, but significant, percentage of patients with a penicillin allergy will also react to cephalosporins due to a shared **beta-lactam ring** structure (**cross-sensitivity**).
5	B	Safety	The expiration date ($01/2026$) means the drug is guaranteed potent until the **last day of the specified month** (January 31, 2026).
6	D	Safety	**Leading zeros** are required (0.5 mg), but **trailing zeros** are forbidden (5.0 mg should be 5 mg) to prevent misreading (e.g., 5.0 misread as 50).
7	C	Safety	10°C is too warm. The technician should attempt to

Q	Answer	Module	Explanation Hint
			correct the temperature, but **immediately alert the pharmacist** to determine if the products have been compromised.
8	B	Safety	All errors, regardless of patient harm, must be documented. Reporting to **ISMP (Institute for Safe Medication Practices)** or **MedWatch** helps improve patient safety systems nationally.
9	C	Safety	**The Joint Commission (TJC)** maintains a list of dangerous abbreviations to reduce communication errors in healthcare.
10	B	Safety	Recalled drugs must be immediately removed from active stock and **quarantined** to prevent accidental dispensing.
11	B	Safety	A **DUR** is a mandatory check performed by the pharmacist to ensure the medication is safe and appropriate for the patient.
12	C	Safety	The **Beyond-Use Date (BUD)** is assigned to compounded preparations, distinguishing it from the expiration date on manufactured products.
13	C	Safety	Schedule II drugs require strict accountability. Counting and recording must be verified, and perpetual inventory is often required.
14	C	Safety	**Segregation (or sequestering)** is the practice of separating look-alike, sound-alike, or high-alert drugs to prevent errors.
15	B	Safety	After a multi-dose vial is first punctured, the **in-use BUD** (often 28 days for insulin) applies, which is almost always shorter than the manufacturer's expiration date.
16	C	Safety	**Smart pumps** require the technician to select the correct drug library/concentration and program limits; this is the final, crucial

Q	Answer	Module	Explanation Hint
			safety barrier before infusion.
17	C	Safety	**p.c.** stands for *post cibum*, which means **after meals**.
18	B	Regulatory	The **DEA** is the primary federal agency regulating all aspects of **controlled substances** (Schedules I-V).
19	C	Regulatory	Schedule III-V prescriptions are typically valid for **6 months** from the date they were written.
20	B	Regulatory	**DEA Form 222** is the official ordering form for Schedule I and II controlled substances.
21	B	Regulatory	The **Kefauver-Harris Amendment of 1962** was passed in response to the Thalidomide disaster, requiring drugs to be proven both **safe AND effective**.
22	C	Regulatory	Schedule II substances (high abuse potential) **cannot be refilled**; a new prescription is required for each fill.
23	B	Regulatory	A **Medication Guide (MedGuide)** is FDA-approved patient labeling required for certain products that pose a serious public health concern.
24	C	Regulatory	The **PPPA** requires that most prescription drugs be packaged in containers that are **difficult for children under 5 to open (child-resistant)**.
25	A	Regulatory	**HIPAA** sets the national standard for the protection and privacy of patient health information (**PHI**).
26	B	Regulatory	For emergency Schedule II oral prescriptions, a **written prescription** must be received by the pharmacist within **7 days**.

Q	Answer	Module	Explanation Hint
27	D	Regulatory	Due to high abuse potential, **Schedule II** substances require an **exact count** during inventory. Schedules III-V may be estimated if the container holds less than 1,000 dosage units.
28	B	Regulatory	Schedule III and IV drugs can be refilled a maximum of **5 times within 6 months** after the date of issue.
29	B	Regulatory	**OSHA** ensures a safe working environment for all employees, including setting standards for the handling of hazardous drugs.
30	C	Regulatory	A prescription must be written by a practitioner **licensed in the U.S.**, usually within the state, to be filled in a U.S. pharmacy.
31	C	Regulatory	The **1982 Tylenol poisonings** led to the federal requirement for **tamper-evident packaging** on most OTC products.
32	C	Regulatory	The **DEA number** is a unique identifier issued by the DEA to prescribers (and pharmacies) allowing them to **prescribe controlled substances**.
33	C	Regulatory	The **Durham-Humphrey Amendment of 1951** established the distinction between drugs requiring a prescription (**Rx**) and those that do not (**OTC**).
34	D	Regulatory	Strict storage requirements are designed to minimize the risk of **diversion (illicit use)** and **theft** of highly addictive drugs.
35	A	Compounding	**USP $<795>$** sets the standards for **Non-Sterile** Compounding.
36	B	Compounding	**70% Isopropyl Alcohol (IPA)** is the standard disinfectant used to clean compounding surfaces.
37	B	Compounding	Manipulations must be performed at least **6 inches** inside the hood to maintain the integrity of the **First Air** (the cleanest air coming

Q	Answer	Module	Explanation Hint
			directly from the HEPA filter).
38	B	Compounding	The single largest source of contamination in a cleanroom is the human body. Garbing is essential to **protect the product**.
39	B	Compounding	**Touch contamination** is the most frequent cause of CSP contamination and is why proper hand hygiene and aseptic technique are paramount.
40	C	Compounding	The needle should be inserted at a $45^\\circ \text{ angle}$, bevel up, and then pivoted to $90^\\circ$ to minimize the amount of rubber material scraped into the solution (**coring**).
41	C	Compounding	**USP $<800>$** provides standards for the handling of **hazardous drugs** to protect personnel and the environment.
42	B	Compounding	**Depyrogenation** is the process of removing pyrogens, which are endotoxins produced by microorganisms that cause fever if injected.
43	C	Compounding	The **Minimum Weighable Quantity (MWQ)** is the lowest amount that can be accurately weighed on a specific scale, ensuring accuracy and potency.
44	C	Compounding	Injecting slowly down the side of the vial prevents foaming, splashing, and minimizes pressure buildup.
45	C	Compounding	The **Primary Engineering Control (PEC)** is the ISO Class 5 area (e.g., LAFW, CAI) where the critical manipulations occur.
46	C	Compounding	Filling a syringe more than **$75-80\%$ of its capacity** can compromise the accuracy of the measurement due to the graduation marks' position.
47	B	Compounding	**Geometric dilution** is a technique used to ensure a uniform

Q	Answer	Module	Explanation Hint
			distribution of a small amount of an ingredient throughout a large amount of a base.
48	C	Compounding	The **Ante-Area** (where hand hygiene and garbing occurs) must be at least **ISO Class 8** or better.
49	C	Compounding	Ampules are made of glass, and breaking them creates small particles. A **filter needle** must be used to prevent drawing **glass shards** into the syringe.
50	C	Compounding	**High-Risk** compounding involves using non-sterile ingredients or exposure to air quality worse than ISO Class 5 for prolonged periods, requiring a terminal sterilization step.