

BPS STERILE COMPOUNDING PRACTICE EXAM (SAMPLE)

STUDY GUIDE



**SAMPLE STUDY GUIDE
WITH LIMITED QUESTIONS**

**VISIT US ONLINE FOR
THE FULL VERSION STUDY GUIDE**

<https://bpssterilecompounding.examzify.com>



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Introduction

Preparing for a certification exam can feel overwhelming, but with the right tools, it becomes an opportunity to build confidence, sharpen your skills, and move one step closer to your goals. At Examzify, we believe that effective exam preparation isn't just about memorization, it's about understanding the material, identifying knowledge gaps, and building the test-taking strategies that lead to success.

This guide was designed to help you do exactly that.

Whether you're preparing for a licensing exam, professional certification, or entry-level qualification, this book offers structured practice to reinforce key concepts. You'll find a wide range of multiple-choice questions, each followed by clear explanations to help you understand not just the right answer, but why it's correct.

The content in this guide is based on real-world exam objectives and aligned with the types of questions and topics commonly found on official tests. It's ideal for learners who want to:

- Practice answering questions under realistic conditions,
- Improve accuracy and speed,
- Review explanations to strengthen weak areas, and
- Approach the exam with greater confidence.

We recommend using this book not as a stand-alone study tool, but alongside other resources like flashcards, textbooks, or hands-on training. For best results, we recommend working through each question, reflecting on the explanation provided, and revisiting the topics that challenge you most.

Remember: successful test preparation isn't about getting every question right the first time, it's about learning from your mistakes and improving over time. Stay focused, trust the process, and know that every page you turn brings you closer to success.

Let's begin.

How to Use This Guide

This guide is designed to help you study more effectively and approach your exam with confidence. Whether you're reviewing for the first time or doing a final refresh, here's how to get the most out of your Examzify study guide:

1. Start with a Diagnostic Review

Skim through the questions to get a sense of what you know and what you need to focus on. Your goal is to identify knowledge gaps early.

2. Study in Short, Focused Sessions

Break your study time into manageable blocks (e.g. 30 – 45 minutes). Review a handful of questions, reflect on the explanations.

3. Learn from the Explanations

After answering a question, always read the explanation, even if you got it right. It reinforces key points, corrects misunderstandings, and teaches subtle distinctions between similar answers.

4. Track Your Progress

Use bookmarks or notes (if reading digitally) to mark difficult questions. Revisit these regularly and track improvements over time.

5. Simulate the Real Exam

Once you're comfortable, try taking a full set of questions without pausing. Set a timer and simulate test-day conditions to build confidence and time management skills.

6. Repeat and Review

Don't just study once, repetition builds retention. Re-attempt questions after a few days and revisit explanations to reinforce learning. Pair this guide with other Examzify tools like flashcards, and digital practice tests to strengthen your preparation across formats.

There's no single right way to study, but consistent, thoughtful effort always wins. Use this guide flexibly, adapt the tips above to fit your pace and learning style. You've got this!

Questions

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- 1. What is the required temperature in a Containment Segregated Compounding Area (C-SCA)?**
 - A. 0 degrees C
 - B. 15 degrees C
 - C. 20 degrees C
 - D. 25 degrees C
- 2. Which chapter of USP deals primarily with radiopharmaceuticals?**
 - A. USP 797
 - B. USP 823
 - C. USP 800
 - D. USP 999
- 3. Why is terminal filtration by membrane filtration preferred over direct inoculation?**
 - A. It is less expensive
 - B. It provides faster results
 - C. It reduces the risk of contamination
 - D. It is easier to perform
- 4. What role does visual inspection serve in quality assurance for compounded preparations?**
 - A. It helps detect any odor issues
 - B. It confirms the color variations in preparations
 - C. It identifies visible signs of contamination or inconsistencies
 - D. It ensures accurate labeling of products
- 5. What does the term "sterility assurance level" (SAL) refer to?**
 - A. The effectiveness of sterilization in ensuring no viable organisms remain
 - B. The total number of organisms that can survive a sterilization process
 - C. The time required to achieve sterility during compounding
 - D. The cleanliness of the compounding environment

- 6. What characteristic should the exterior lens of lights in a buffer room have?**
- A. Rough surface and air vents
 - B. Textured and reflective
 - C. Smooth, mounted flush and sealed
 - D. Opaque and adjustable
- 7. What is the primary goal of risk assessment in sterile compounding?**
- A. To identify potential hazards and minimize the risk of contamination
 - B. To educate staff on errors in compounding
 - C. To assess financial risks associated with compounding
 - D. To ensure all medications are correctly labeled
- 8. What is the longest allowed storage time for high risk CSPs when frozen?**
- A. 30 days
 - B. 45 days
 - C. 60 days
 - D. 90 days
- 9. What percentage of dextrose is typically recommended for central line parenteral nutrition due to phlebitis concerns?**
- A. About 5%
 - B. About 10%
 - C. About 12.5%
 - D. About 15%
- 10. Which method is NOT typically used for achieving sterility in high risk CSPs?**
- A. Terminal sterilization
 - B. Filtration through a 0.2 micron filter
 - C. Using non-sterile water
 - D. Performing chemical disinfection

Answers

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1. C
2. B
3. C
4. C
5. A
6. C
7. A
8. B
9. C
10. C

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Explanations

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1. What is the required temperature in a Containment Segregated Compounding Area (C-SCA)?

- A. 0 degrees C
- B. 15 degrees C
- C. 20 degrees C**
- D. 25 degrees C

In a Containment Segregated Compounding Area (C-SCA), the required temperature is set to 20 degrees Celsius. This temperature is in alignment with guidelines to ensure that compounded sterile preparations are performed in an environment that minimizes the risk of contamination and maintains the stability of the compounded products. Maintaining a temperature around 20 degrees Celsius helps to create an optimal environment for the manipulation of hazardous drugs, as it is cool enough to reduce the growth of microorganisms while also being practical for the comfort of personnel involved in the compounding process. This requirement is part of broader standards to create a controlled environment in compounding facilities, which helps prevent spoilage or degradation of sterile products due to temperature fluctuations. If the temperature is too low or too high, it can compromise both the safety and efficacy of the preparations being made.

2. Which chapter of USP deals primarily with radiopharmaceuticals?

- A. USP 797
- B. USP 823**
- C. USP 800
- D. USP 999

The correct answer is USP 823 because this chapter specifically addresses the handling and compounding of radiopharmaceuticals, which are drugs that emit radiation and are used primarily for diagnostic or therapeutic purposes in nuclear medicine. USP 823 outlines the standards and requirements for the preparation of these highly specialized compounds, ensuring safety, quality, and efficacy in the handling of radioactive materials. This chapter also provides guidelines for various aspects, including personnel qualifications, environmental controls, and equipment requirements tailored to the unique challenges posed by working with radiopharmaceuticals. Given the complexity and potential hazards associated with radioactivity, these guidelines are critical in a sterile compounding environment to protect both patients and healthcare professionals. Other chapters mentioned, like USP 797 or USP 800, focus on sterile compounding and hazardous drugs, respectively, but do not specifically address the unique considerations for radiopharmaceuticals. USP 999, while a real designation, does not pertain to any established standards related to radiopharmaceuticals or sterile compounding. Therefore, USP 823 serves as the appropriate regulatory framework for handling radiopharmaceuticals in a compounding setting.

3. Why is terminal filtration by membrane filtration preferred over direct inoculation?

- A. It is less expensive
- B. It provides faster results
- C. It reduces the risk of contamination**
- D. It is easier to perform

Terminal filtration by membrane filtration is preferred over direct inoculation primarily because it significantly reduces the risk of contamination in the final product. In sterile compounding, maintaining the sterility of the preparation is paramount to ensure patient safety and effective treatment outcomes. When using membrane filtration, a sterile solution is passed through a filter that allows the passage of the solution while retaining microbial contaminants. This method effectively contains any potential contaminants present in the solution before it reaches the final container, thus ensuring the sterility of the compounded preparation. It effectively acts as a final barrier against bacteria, fungi, and other pathogens, allowing for a high degree of confidence in the sterility of the end product. Conversely, direct inoculation methods introduce microorganisms directly into the culture media, which could lead to an oversight of contaminants that may be present in the preparation. While it may be useful for certain quality control tests, it does not provide the same level of assurance regarding the absence of contaminants as membrane filtration does. In terms of the other options, terminal filtration does not necessarily lead to faster results, is not necessarily less expensive, and may involve a level of complexity that is comparable to other methods, making the filtration process just as easy or challenging depending on the setup. Therefore, the focus on

4. What role does visual inspection serve in quality assurance for compounded preparations?

- A. It helps detect any odor issues
- B. It confirms the color variations in preparations
- C. It identifies visible signs of contamination or inconsistencies**
- D. It ensures accurate labeling of products

Visual inspection plays a crucial role in quality assurance for compounded preparations by identifying visible signs of contamination or inconsistencies. This step is vital in ensuring the safety and efficacy of the compounded products prior to dispensing. Through visual inspection, practitioners can observe the preparation for any particulate matter, discoloration, phase separation, or cloudiness, which may indicate contamination or improper formulation. These visual cues can reveal whether the compounding process was conducted correctly and if the final product meets the established quality standards. This inspection is an essential part of the overall quality assurance process, allowing pharmacists to ensure that the compounded preparation is suitable for patient use. While other processes like labeling and checking for odor may be important, they do not specifically focus on the physical integrity and safety of the compounded product in the same manner that visual inspection does. The emphasis is on safeguarding against potential risks that might arise from unnoticed contamination or inconsistencies in the preparation, which could significantly impact patient outcomes.

5. What does the term "sterility assurance level" (SAL) refer to?

- A. The effectiveness of sterilization in ensuring no viable organisms remain**
- B. The total number of organisms that can survive a sterilization process
- C. The time required to achieve sterility during compounding
- D. The cleanliness of the compounding environment

The term "sterility assurance level" (SAL) specifically refers to the effectiveness of a sterilization process in ensuring that no viable organisms remain in a product after sterilization. It is a critical parameter in sterile compounding, as it quantifies the risk of a viable microorganism surviving the sterilization process. In practical terms, an SAL of 10^{-6} , for instance, indicates that there is only a one-in-a-million chance of a viable organism remaining in the final product, thereby providing a high level of assurance that the product is sterile. This concept is crucial in ensuring patient safety when administering sterile products, as even a single viable organism could lead to serious infections or complications. Understanding SAL is vital for compounding pharmacists, as it underscores the importance of following validated sterilization methods and maintaining stringent quality control measures during the compounding process.

6. What characteristic should the exterior lens of lights in a buffer room have?

- A. Rough surface and air vents
- B. Textured and reflective
- C. Smooth, mounted flush and sealed**
- D. Opaque and adjustable

The correct characteristic for the exterior lens of lights in a buffer room is a smooth, mounted flush and sealed design. This feature is critical in a sterile compounding environment for several reasons. First, a smooth surface is essential to prevent any dust, particulate matter, or microbial contamination from accumulating on the light fixture. A rough or textured surface may trap particles and make cleaning more difficult, potentially compromising the sterility of the area. Additionally, being mounted flush ensures that there are no gaps or crevices where contaminants can hide or accumulate. Sealing the light fixtures is equally important, as it prevents the ingress of air and possible contaminants from the outside environment into the sterile compounding space. Together, these characteristics enhance the cleanliness and safety of the buffer room, which is vital for maintaining the integrity of compounded sterile preparations.

7. What is the primary goal of risk assessment in sterile compounding?

- A. To identify potential hazards and minimize the risk of contamination**
- B. To educate staff on errors in compounding
- C. To assess financial risks associated with compounding
- D. To ensure all medications are correctly labeled

The primary goal of risk assessment in sterile compounding is to identify potential hazards and minimize the risk of contamination. In sterile compounding, the primary concern is to maintain the integrity and safety of the compounded medications. Contamination can lead to patient harm, including infection and adverse reactions. Through risk assessment, compounding facilities systematically evaluate different processes, equipment, and environments to pinpoint areas where contamination is likely to occur. This proactive approach allows for the implementation of strategies and best practices aimed at reducing these risks, such as improving cleanliness protocols, enhancing training, and ensuring proper technique during the compounding process. Other aspects, such as staff education on errors, financial risks, or medication labeling, play important roles in the overall operation of a compounding pharmacy but do not directly address the critical focus of risk assessment in maintaining sterile conditions.

8. What is the longest allowed storage time for high risk CSPs when frozen?

- A. 30 days
- B. 45 days**
- C. 60 days
- D. 90 days

The longest allowed storage time for high-risk compounding sterile preparations (CSPs) when frozen is 45 days. This guideline is established by the United States Pharmacopeia (USP) standards, specifically in USP <797>. High-risk CSPs are those that have a higher probability of contamination due to the complexity of their preparation or the environment in which they are prepared. When frozen, these preparations can be maintained for 45 days to ensure both their stability and efficacy. Beyond this time frame, the risk of degradation or compromise in potency increases, which could lead to safety issues for patients. Understanding these time constraints is crucial for pharmacy compounding professionals in order to comply with regulations and ensure the safety of compounded sterile products. The options for longer storage times are not applicable for high-risk CSPs, as they exceed the established safety limits for stability when frozen.

9. What percentage of dextrose is typically recommended for central line parenteral nutrition due to phlebitis concerns?

- A. About 5%
- B. About 10%
- C. About 12.5%**
- D. About 15%

The recommended percentage of dextrose for central line parenteral nutrition, taking into account the risk of phlebitis, generally falls around 12.5%. This concentration strikes a balance between providing adequate caloric intake and minimizing the risk of complications such as phlebitis, which can occur with higher concentrations of dextrose. In central venous access, higher concentrations can irritate the vein and increase the likelihood of inflammatory responses, leading to phlebitis. Therefore, utilizing a dextrose concentration around 12.5% is preferred in clinical practice, as it is less likely to cause irritation compared to higher concentrations while still being sufficient for the nutritional needs of a patient receiving parenteral nutrition. In lower percentages, such as 5% or 10%, calorie needs may not be adequately met, especially in patients requiring intensive nutritional support. Conversely, concentrations above 12.5% can significantly heighten the risk of vein irritation and phlebitis, thereby making the 12.5% solution a common standard in practice for central line total parenteral nutrition.

10. Which method is NOT typically used for achieving sterility in high risk CSPs?

- A. Terminal sterilization
- B. Filtration through a 0.2 micron filter
- C. Using non-sterile water**
- D. Performing chemical disinfection

In the context of achieving sterility in high-risk compounded sterile preparations (CSPs), non-sterile water is not an appropriate choice for ensuring sterility. High-risk CSPs are defined as those that contain sterile ingredients but are compounded under conditions that could introduce contamination, and thus require methods that can guarantee the elimination of any microbes or pathogens. Terminal sterilization, filtration through a 0.2 micron filter, and performing chemical disinfection are all established methods used to achieve sterility. Terminal sterilization typically involves processes like autoclaving or dry heat sterilization, which effectively eliminate all forms of microbial life. Filtration through a 0.2 micron filter is a physical method designed to remove bacteria from solutions, ensuring the final product is free of contamination. Chemical disinfection involves using agents that can effectively kill or inactivate pathogens on surfaces and equipment used in sterile compounding. In contrast, using non-sterile water introduces potential contamination into the sterile compounding process, undermining the assurance of sterility that high-risk CSPs must adhere to. Therefore, it is critical to utilize only sterile water or other sterile solvents in these preparations to maintain sterility and ensure patient safety.

Next Steps

Congratulations on reaching the final section of this guide. You've taken a meaningful step toward passing your certification exam and advancing your career.

As you continue preparing, remember that consistent practice, review, and self-reflection are key to success. Make time to revisit difficult topics, simulate exam conditions, and track your progress along the way.

If you need help, have suggestions, or want to share feedback, we'd love to hear from you. Reach out to our team at hello@examzify.com.

Or visit your dedicated course page for more study tools and resources:

<https://bpssterilecompounding.examzify.com>

We wish you the very best on your exam journey. You've got this!

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