



ASEPTICS ANTISEPTICS RULES

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Article history:	Abstract:
<p>Received: August 20th 2023 Accepted: September 20th 2023 Published: October 24th 2023</p>	<p>Infection control is a critical aspect of healthcare, and it hinges on the principles of aseptics and antiseptics. Aseptics involve the prevention of infections through sterile techniques, while antiseptics are the agents used to inhibit the growth of microorganisms on living tissues. This article provides a comprehensive overview of aseptics and antiseptics, including their importance, methods of application, and their roles in healthcare. We also discuss the significance of proper infection control measures, as well as practical recommendations for healthcare professionals.</p>
<p>Keywords: Aseptics, antiseptics, infection control, sterilization, medical procedures, healthcare, microorganisms, disinfection, guidelines.</p>	

In the realm of healthcare and medical procedures, the principles of aseptics and antiseptics are essential for maintaining a sterile environment, preventing infections, and ensuring patient safety. Aseptics and antiseptics represent two distinct yet interconnected approaches to control the proliferation of microorganisms, especially in medical settings. This article will delve into the significance of aseptics and antiseptics, their application in clinical practices, and their contribution to infection control.

The importance of aseptics and antiseptics in healthcare settings cannot be overstated. Countless studies and guidelines highlight their crucial role in reducing the risk of infections. For instance, research published in the *New England Journal of Medicine* (2019) demonstrated that strict adherence to aseptic techniques during surgeries significantly lowers the incidence of surgical site infections (SSI). This suggests that following proper aseptic protocols during invasive procedures can directly improve patient outcomes.

Additionally, studies on the efficacy of antiseptics have been conducted extensively. A comprehensive review published in the *Journal of Antimicrobial Chemotherapy* (2020) elucidated the mechanisms of action and the clinical utility of various antiseptic agents, emphasizing their role in preventing wound infections and controlling the spread of healthcare-associated infections.

Aseptics and antiseptics encompass a wide array of practices and products. For aseptics, the primary methods include:

- **Hand Hygiene:** Healthcare professionals must rigorously follow handwashing and hand sanitizing protocols to prevent cross-contamination.

- **Sterilization:** The use of heat, chemicals, or radiation to sterilize equipment, surgical instruments, and medical supplies.
- **Environmental Control:** Ensuring the cleanliness and sterilization of clinical environments, such as operating rooms and patient rooms.

For antiseptics, the methods involve the use of chemical agents, such as alcohol-based hand sanitizers, iodine, hydrogen peroxide, and chlorhexidine, to disinfect and clean the skin, mucous membranes, and other living tissues.

Aseptics and antiseptics are essential concepts in healthcare and hygiene to prevent infections and maintain cleanliness. Here are some basic rules and information about them:

Asepsis: Asepsis refers to the practice of creating and maintaining a sterile or infection-free environment. It is commonly used in healthcare settings, especially in surgical procedures and the handling of medical equipment.

- **Hand hygiene:** Proper handwashing with soap and water, or the use of alcohol-based hand sanitizers, is essential to maintain asepsis. Healthcare professionals should follow strict hand hygiene protocols to prevent the transmission of pathogens.

- **Sterile equipment:** In surgical settings, all equipment and instruments that come into contact with a patient's body should be sterile. This involves sterilization techniques like autoclaving to kill or remove microorganisms.

- **Aseptic techniques:** Healthcare workers use aseptic techniques when performing medical procedures to minimize the risk of infection. This includes wearing sterile gloves, using sterile drapes, and maintaining a sterile field.

Antiseptics: Antiseptics is the practice of using antiseptic agents to disinfect the skin or mucous



membranes. It is often used to reduce the risk of infection in minor wounds, during catheter insertion, and for other medical procedures.

- Antiseptic solutions: Common antiseptic solutions include iodine-based products, alcohol-based solutions, and hydrogen peroxide. These are applied to the skin to kill or inhibit the growth of microorganisms.

- Proper application: When using antiseptics, it's important to follow the manufacturer's instructions and ensure that the skin is properly cleaned before applying the antiseptic. This helps reduce the risk of infection.

General Rules for Aseptics and Antiseptics:

- Infection control: Both aseptics and antiseptics play a crucial role in infection control. They help prevent the spread of infections in healthcare settings and in everyday life.

- Use in healthcare: In healthcare settings, healthcare workers must adhere to strict protocols for asepsis and antisepsis to protect patients and themselves from infections.

- Home use: Antiseptics, such as hydrogen peroxide and alcohol-based hand sanitizers, are commonly used at home to clean wounds and maintain personal hygiene.

- Follow guidelines: Always follow recommended guidelines and instructions for the proper use of aseptics and antiseptics to achieve the desired results.

In summary, aseptics and antiseptics are important for preventing infections and maintaining a clean and safe environment, particularly in healthcare settings. Proper hygiene and adherence to established protocols are crucial for their effective use.

The discussion should focus on the broader implications and challenges of implementing aseptics and antiseptics in healthcare settings. It's important to acknowledge that while aseptics and antiseptics are highly effective, their consistent and correct application depends on the diligence and awareness of healthcare professionals. This can be challenging in high-stress environments.

Furthermore, the selection of antiseptic agents and practices should be guided by the specific needs of the clinical situation, taking into account the spectrum of activity, potential side effects, and patient sensitivities.

CONCLUSIONS AND SUGGESTIONS

In conclusion, aseptics and antiseptics play an indispensable role in infection control within healthcare settings. The evidence-based literature and real-world outcomes emphasize their effectiveness in reducing the spread of infections and improving patient safety.

To further enhance the application of aseptics and antiseptics, it is crucial to:

- Invest in ongoing education and training of healthcare professionals on aseptic techniques.
- Promote the use of evidence-based guidelines for selecting and using antiseptic agents.
- Continuously monitor and assess the effectiveness of aseptics and antiseptics in healthcare practices.

Ultimately, the consistent application of aseptics and antiseptics is essential for reducing the burden of healthcare-associated infections, improving patient outcomes, and maintaining the highest standards of safety in medical procedures.

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