Standard Operating Procedure (SOP)

Post-sterilization Handling and Storage Protocols

Purpose

This SOP details **post-sterilization handling and storage protocols** to ensure the integrity and sterility of medical instruments and materials. It includes guidelines for proper cooling, aseptic handling techniques, packaging standards, storage environment conditions, and monitoring procedures to prevent contamination. The aim is to maintain sterilization efficacy and ensure patient safety by adhering to strict handling and storage practices following sterilization processes.

Scope

This SOP applies to all staff involved in the handling, packaging, and storage of sterilized medical instruments and materials at the facility.

Responsibilities

- All sterile processing staff: Follow this SOP during and after sterilization procedures.
- Supervisors/Managers: Ensure compliance and provide training on protocols.
- Quality Control Personnel: Conduct periodic monitoring and audits.

Procedure

1. **Post-sterilization Cooling:**
    - Allow sterilized items to cool to room temperature before handling.
    - Do not stack or crowd items during cooling to prevent compromised packaging integrity.
2. **Aseptic Handling:**
    - Perform hand hygiene and don appropriate personal protective equipment (PPE) before handling sterilized items.
    - Use sterile or clean gloves as required.
    - Prevent direct contact with sterile surfaces/packages.
3. **Packaging Standards:**
    - Inspect packaging for integrity; do not use items with tears, wet spots, or compromised seals.
    - Label packages with sterilization date, batch number, and expiry date (if applicable).
4. **Storage Environment:**
    - Store sterilized items in a clean, dry, and designated sterile storage area.
    - Maintain temperature between 18â€“24Â°C and relative humidity below 70%.
    - Keep items off the floor, away from direct sunlight, and at least 8â€“10 inches from ceilings and exterior walls.
    - Organize items by expiration or sterilization date (â€œfirst in, first outâ€ principle).
5. **Monitoring and Documentation:**
    - Visually inspect the storage area daily for cleanliness and conditions.
    - Document storage conditions (temperature, humidity) and inventory checks at least weekly.
    - Report and quarantine any items with packaging issues or suspected contamination; reprocess according to facility protocol.

References

- CDC Guidelines for Disinfection and Sterilization in Healthcare Facilities
- ANSI/AAMI ST79: Comprehensive guide to steam sterilization and sterility assurance in health care facilities
- Facility infection control policies

Revision History

Date	Revision	Description	Approved By
2024-06-01	1.0	Initial SOP release	[Name/Title]