### Purpose
This Operating Standard outlines the appropriate steps for processing re-usable surgical textiles, ensuring that surgical textiles are maintained at the highest possible level of quality.

### Applicability
This Operating Standard applies to all Covenant Health Environmental Services employees, Covenant Health Volunteers, students, and any other person acting on behalf of Covenant Health, including contract service providers.

### Responsibility
All Covenant Health employees, volunteers, students, or service providers that act on behalf of Covenant Health are required to follow the principals and steps outlined for laundry and linen in order to maintain a clean and safe environment.

### Principles
An outline of the appropriate principals and steps for processing and maintaining re-usable surgical textiles.

### Procedures
#### TOOLS NEEDED
- Isopropyl Alcohol, 99%
- Light Table
- Purified or distilled water
- Blotter paper

#### SAFETY PRACTICES
- Gowns, goggles, face shield or impervious face mask and eye protection, and utility gloves are worn when sorting dirty linen.
- Gloves shall be of the reusable type (utility glove) in the soiled laundry area which is disposed of at the end of each work day. At no times are they to be laundered and reused.
- Disposable gloves are to be used in all other areas of the department.
- All laundry is handled in a manner consistent with the Infection Control Program operating in the site.
- All soiled linen is treated as potentially contaminated.
- All linen processed follows a strict traffic pattern of soiled to clean. Human traffic is kept to a minimum.
- Access to processing areas restricted to authorized staff only.
- Covenant Health Hand Hygiene procedures must be practiced at all times.
- Employees are not permitted to eat, drink, apply cosmetics or lip balm, or handle contact lenses in the reprocessing area due to the risk of...
contamination.
- Soiled linens must always be handled appropriately and in a safe and efficient manner that minimizes the likelihood of spills, leaks, or exposure.
- Change gloves and other PPE if they are damaged, or if moving from a ‘dirty task’ to a ‘clean task’ to prevent cross-contamination.
- Employees may be rotated through the duties with the light table in order to prevent eye fatigue.

All employees handling surgical textiles must wear appropriate Personal Protective Equipment (PPE).

PPE for handling clean surgical textiles:
- Gloves (to prevent contamination of clean linen from non-intact skin)
- Clean apparel and appropriate footwear
- Bouffant Caps
- Surgical-type covering or hood to completely cover all head and facial hair (except for eyebrows and eyelashes).

PPE for handling soiled surgical textiles:
- Gloves (moisture and puncture resistant: surgical, vinyl, or rubber)
- Barrier gown (minimum Level 2 Liquid Resistant)
- Full-face shield OR a fluid impervious face mask and eye protection
- Bouffant Caps

Section 1: Standard
The gowns, drapes, and wrappers must meet specific functional characteristics outlined by Canadian Standards Association (CSA) for use in a health care setting.

General
1. Laundry Services must comply with documented standards for the purchasing, use, and processing of re-usable surgical textiles and will review these documents regularly in consultation with appropriate stakeholders. Laundry Services leads the evaluation, selection and purchasing of all surgical textiles in accordance with the CSA Z314.10.1 and Infection Prevention and Control standards.
2. Laundry Services staff must comply with the Dress Code operating procedure 1.3.1.0, noting that while working in clean textile pack preparation areas, staff must wear clean surgical attire (i.e. Surgical scrubs or gown). The attire must be donned just prior to entering the preparation area.
3. Additional PPE may be required, such as hairnet or surgical type of hair covering or hood to cover the head and facial hear (with the exception of eyebrows and eyelashes).
4. Jewelry is not permitted and must be removed prior to entering the area.

Evaluation, Selection, and Purchase of Surgical Textiles
1. Laundry Services is responsible and accountable for the selection, purchase, and preparation of re-usable surgical textiles.
a. Perform a pre-purchase evaluation of all re-usable surgical textiles.
b. Collaboration on relative merits of single-use and multiple-use (re-useable) products for a given application.

c. Communicate and coordinate with end user departments to ensure that all re-useable surgical textiles will meet clinical needs.

d. Care for the product according to the written manufacturer's instructions for use (MIFU), in order to ensure that the integrity of the items is not compromised. Purchased surgical textiles must include a validated MIFU for reprocessing, routine care, life cycle information, barrier test methods, failure criteria, method to track number of uses, and validated instructions for sterilization.

2. As part of the evaluation, re-useable surgical textiles must undergo visual inspection of labels, markers, tags, and fabric. The fabric must be inspected for colour, finish, and seam sealant (on barrier fabrics). All newly purchased textiles must meet the criteria outlined in CSA Z314.10.

Inspection of Newly Purchased Re-Usable Surgical Textiles

1. Laundry Services employees must ensure that all newly purchased and re-usable surgical textiles are inspected and meet the appropriate criteria as outlined in CSA Z314.10.1-10.

2. All non-compliant reusable surgical textiles must be brought to the Supervisor's attention immediately, and returned to the manufacturer.

Processing Re-Usable Surgical Textiles

1. Surgical textiles must remain in top functional condition and must not be allowed to prematurely deteriorate. All re-useable surgical textiles shall be processed, transported, and adequately discarded in accordance with the guidelines set out in CSA Z314.10.2-10.

2. Areas for sorting soiled re-useable surgical textiles shall provide adequate ventilation.

Water Quality

1. The health care facility water quality shall be tested for hardness and pH levels for those sites that process re-usable surgical textiles in conjunction with textile, laundry equipment, and chemical manufacturer specifications.

2. Iron content shall be tested periodically or when environmental changes occur (i.e. seasonal changes) or when water supply is disrupted.

Total Quality Inspection

1. Laundry Services shall ensure that each re-usable surgical textile is individually inspected (using a light table) for rewash, repair, stain treatment, or discard so that a safe, sanitary product is consistently provided.

   a. All inspection, maintenance, and testing of re-usable surgical textiles must follow the MIFU.

2. Periodic testing of the textile barrier integrity shall be conducted as per MIFU. If there are any areas of questionable barrier integrity, the appropriate Barrier Integrity Test shall be used.

3. All re-usable surgical drapes, gowns, and wrappers must contain a permanently applied Quality Control Grid or automated tracking system.

4. Re-usable Surgical textiles that fail to meet inspection criteria must be removed from service.

Surgical Textile Packs

1. Re-usable surgical textiles shall be folded in such a manner that they can be easily and safely introduced to the sterile Operating Room environment.

2. Prior to the acceptance of any folding configuration, tests using biological and chemical indicators in multiple areas of the package shall be performed to ensure optimal levels of sterilization have been achieved.
Testing shall include input from end-users to ensure that the folding configuration allows for sterile delivery and storage. Testing shall be done with new bundles containing surgical textiles, with new packaging, or wrapping systems. All testing shall be documented.

b. A Class 5 integrating chemical indicator must be used for the testing.

Transportation of Surgical Textiles

1. Surgical textiles transported off the processing site to another location must be transported in waterproof, leak-proof bags or containers of adequate size.

2. Surgical textiles must be covered during transport to prevent cross-contamination between the textile and the surrounding atmosphere.

Section 2: STEPS

Processing

1. Follow the procedure outlined in Soiled Linen Handling Protocol for handling soiled surgical textiles.

2. Re-usable surgical textiles must be washed and processed in accordance with the MIFU.
   a. Products prone to lint must be processed separately.

3. Washing, conditioning, and drying of re-usable surgical textiles must occur in accordance with the written MIFU. Washing practices shall take the following variables into consideration:
   a. Time and temperature
   b. Mechanical action
   c. Chemicals introduced
   d. The pH of the wash bath and of the laundered product
   e. Rising requirements
   f. Water hardness
   g. Load size (volume or weight)
   h. Nature and amount of soil to be removed
   i. Type of washing machine or other equipment

4. Re-usable surgical textiles must not be pressed or ironed.

5. All stain removal methods must follow that of the MIFU.

Quality Inspection

1. After the surgical textiles have been washed and dried, each surgical textile must be individually inspected for re-wash, repair, stain treatment, or discard, using a light table.

2. All inspection, maintenance, and testing of surgical textiles must follow the manufacturer’s instructions.

3. Gowns must be inspected both inside and outside of gown sleeves to ensure seam tape and cuffs are intact. All gowns missing ties must be removed for repair.

4. After treatment, surgical textiles must be re-examined and pass inspection prior to placement on the unit carts.

5. Barrier Integrity – Alcohol / Barrier Resistance Test. During the inspection, if there are any areas of questionable barrier integrity, staff must use the Alcohol Resistance Test or the Barrier Resistance Test.
   a. Alcohol Resistance Test
      i. Gather appropriate equipment: 99% Isopropyl Alcohol and Light Table.
      Saturate the specific area in question with alcohol.
      ii. Apply light pressure with the bottle top until the fabric appears wet.
iii. Observe the area to determine if the test passes or fails.
   1. The item passes the test if no bright spots are visible; alcohol has not penetrated the material.
   2. The item fails the test if bright spot(s) are visible, alcohol has penetrated the material. This indicates the barrier has been damaged. The area must be marked and the items removed for patching or discard.

b. Barrier Resistance Test
   i. Gather the appropriate equipment: purified or distilled water, blotter paper, light table or clean flat surface.
   ii. Place blotter paper under the fabric.
   iii. Apply light pressure with your finger until water is absorbed by the fabric.
   iv. Lift blotter paper and observe the area to determine if the test passes or fails.
      1. The item passes the test if no bright spots are visible on the blotter paper.
      2. The item fails the test if spot(s) are visible on the blotter paper. If there is water on the blotter paper, this indicates that the barrier has been damaged. The area must be marked and the items removed for patching or discard.

6. Any surgical textile that fails to meet inspection criteria must be either repaired or removed from service.

Quality Control Grid
1. All surgical drapes, gowns, and wrappers must contain a permanently applied Quality Control Grid. Once the item has passed inspection, the Quality Control Grid is marked with a permanent-ink pen. When the grid becomes full, the surgical textile must be removed from service.

Surgical Textile Packs
1. Fold and pack the surgical textiles according to site guidelines and staff training. Folding configurations may vary according to the configuration tests that have been performed to ensure optimal levels of sterilization.

Footnotes:

**Personal Protective Equipment (PPE)** – Clothing or equipment worn by staff for protection against hazards. To “Don” is to put on, and to “Doff” is to remove.

**Additional Precautions (AP)** – Precautions (i.e. Contact Precautions, Droplet Precautions, Airborne Precautions) that are necessary in addition to Routine Practices for certain pathogens or clinical presentations. These precautions are based on the method of transmission (e.g. contact, droplet, airborne).

**Hazard Assessment** – Health and Safety Hazard Assessments mitigate the risk of incident/injury or illness from exposure to biological, chemical, or physical contaminants. To reduce the risk of incident/injury or illness appropriate controls must be put into place. Health and Safety Hazard Assessments must be completed and reviewed before a Linen employee is exposed to contaminants which may pose incident/injury or illness. This is done to protect the health and safety of ES employee, other staff and patients/residents.

**Employee Incident/Injury Reporting** – Report incidents or unsafe work to your Supervisor and/or to OHS through the incident management process as required.
Surgical Textiles – Refers to the linen used in operating rooms or required procedures, which must be processed according to stringent CSA Standards in order to maintain the highest level of sterility.

References


3. Alberta Health Services, Linen and Environmental Services. Practice Support Document LS-PROT-OPS-003


5. Covenant Health Protocols:
   a. Hand Hygiene
   b. Soiled Linen Handling Protocol