

INFECTION PREVENTION & CONTROL COMMUNICATION FORM CARDBOARD USAGE: TRANSPORT AND UNIT STORAGE OF SUPPLIES

1. Issue:

Corrugated cardboard increases the risk of infection transmission in many areas of healthcare facilities.

- Cardboard boxes may harbor dust, germs and small insects (which possibly enter during shipping).
- These items tend to be physically dirty and dusty and sometimes wet/moldy from the transportation route.
- External shipping containers or packages that contain tape or corrugated cardboard can harbor germs that are harmful. [\[4.4\]](#)

2. Recommendations:

- 2.1. Containers used to transport or store supplies or stage supplies on unit must be visibly clean.
- 2.2. Do not use corrugated cardboard to transport or store supplies or stage supplies on unit [\[4.1\]](#)
 - Exceptions may need to be made for items such as dialysate jugs and bags that present ergonomic, stability or other issues, provided review has occurred at a Program level, including IP&C and risk reduction methods such as limiting stock and select placement have been implemented as requested.
- 2.3. Designate a staging area for Supply staff to coordinate. Arrange for staging point to be as close to supply room as possible to minimize travel time back and forth.
- 2.4. External shipping containers (e.g., external corrugated cardboard boxes or any container bearing a shipping label) shall not be kept in the areas where clean or sterile items are stored or in the decontamination area. [\[4.1\]](#)
- 2.5. Items in shipping containers shall be unpacked in an area separate from the sterile storage area and immediately stored. [\[4.1\]](#)
- 2.6. The collapsing of any cardboard shall occur outside the Medical Device Reprocessing Department (MDRD) or operating room. [\[4.1\]](#)
- 2.7. Do not take corrugated cardboard boxes into sterile storage areas; Do not use corrugated cardboard boxes in areas where clean or sterile items are stored [\[4.5\]](#)
- 2.8. Do not use corrugated cardboard boxes in an area where case carts are being picked. [\[4.5\]](#)
- 2.9. Do not keep shipping containers (i.e., corrugated cardboard boxes) in areas where clean or sterile items are stored. [\[4.1\]](#)
- 2.10. Unpack items in shipping containers in an area separate from the sterile storage area and immediately store. [\[4.1\]](#) in a designated area with shelving or other storage units.

Note:

- Non-corrugated cardboard is acceptable for transport and/or storage.
- Refer to [Movement of Clean Supply](#) Communication Form to manage clean and sterile medical devices.

3. Background

3.1. Definitions:

- Corrugated cardboard: cardboard usually made of three different layers, the two outer layers having a smooth surface while the central inner layer is corrugated, i.e., shaped into a series of parallel ridges and grooves so as to give added rigidity and strength.^[4.2, 4.3]
- Staging: an area where staff unloads, arrange storage and/or combine medical supplies.

3.2. Discussion of Issue:

- Closed cupboards or drawers can provide some protection from environmental contamination.^[4.1] Inner boxes containing fast-moving (1 to 3 months) products (e.g., gloves, syringes) may be used to store clean/sterile products.^[4.1]
- Cardboard containers cannot be effectively cleaned or disinfected.^[4.1]
- Decanting supplies to a clean plastic bin in the basement level area of the facility prior to its transport could take place.
- Ergonomic concerns exist with heavy items in boxes (e.g. intravenous bags).
 - A strong bin system and space is necessary to re-locate/re-package items from boxes.

NOTE: Warehouse storage of supplies is not addressed within this document.

3.3. Historical Practice Assessment:

Miscellaneous items (e.g. Grand & Toy orders, furniture) arrive directly to the unit in boxes. Remaining supplies arrive at each facility Shipping and Receiving Department.

4. References:

- 4.1. [Canadian medical device reprocessing Z314-18](#). (2018). Canadian Standards Association. Accessed November 8, 2019.
- 4.2. Definition of 'corrugated cardboard'. [Collins English Dictionary](#). Copyright © HarperCollins Publishers. Accessed November 15, 2019.
- 4.3. [Definition of 'corrugated'](#). English oxford living dictionary. Accessed November 8, 2019.
- 4.4. [Warehouse Storage and Transportation of Clean and Sterile Medical Devices](#). Z314.15-10 (2010). Canadian Standards Association. Accessed November 8, 2019.
- 4.5. [WRHA Sterile storage; transportation and distribution of contaminated, clean and sterile medical devices \(on and off-site\) Policy 90.00.090](#). (2013, January). Accessed November 8, 2019.

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