

Upper Extremity Supportive Devices for Healthcare Workers Infection Prevention and Control Communication Form

1. Issue:

Improper cleaning of Upper Extremity Supportive Devices (UESD) can lead to transmission of microorganisms in a health care setting.

Wearing an upper extremity supportive device can interfere with hand hygiene, increasing the risk of infection transmission.

2. Recommendations:

2.1. UESD shall not impede the HCW's ability to perform Hand hygiene

2.2. Cleaning and Disinfection of the UESD must be followed

2.3. Staff must be assessed by Occupational and Environmental Safety and Health (OESH) for the use of the UESD at work (contact [OESH](#) for guidance)

2.4. Following use of the UESD assessment, determine if gloves can be used as a barrier device. If gloves can be used:

- they **must be changed frequently** (e.g., between patients, residents or clients, between tasks on the same patient, resident or client, and when visibly soiled)
- determine the type of glove needed to ensure the device is covered
- the glove must be large and durable enough to withstand tearing
- consider extended cuff gloves

2.5. All Direct Care Staff who wear a prescription UESD at work shall follow OESH and IP&C Guidelines for:

- hand hygiene (see [Routine Practices Policy](#), refer to [Routine Practices](#) in Acute Care IP&C Manual)
- cleaning/disinfection of the device (refer to [Cleaning and Disinfection of Non-Critical Reusable Equipment/Items for Patients in Hospitals](#))
 - See Cleaning and Disinfection Instructions for UESD ([Appendix A](#))

2.6. All Direct Care Staff who wear prescription UESD at work shall be assessed by a Manager/Designate to determine if work modification is possible. See [OP - Upper Extremity Supportive Devices Operational Directive](#).

3. Background:

Definition: An Upper Extremity Supportive Device includes prescription and/or non-prescription wraps, splints, braces, casts, common orthotic devices, and compression devices worn on the hands and wrists.^[4.4]

Discussion:

3.1. Use of an UESD within a health care facility can interfere with the ability to perform adequate hand hygiene.

3.2. Cleaning a supportive device between individual patients, residents, and clients may be difficult given the different materials used in these devices and the schedules of most direct care providers.

4. References:

- 4.1. [Best practices for environmental cleaning for prevention and control of infections](#). (2018, April) Provincial Infectious Disease Advisory Committee (PIDAC). Accessed December 11, 2018.
- 4.2. [Routine Practices and Additional Precautions: Preventing the transmission of infection in healthcare](#). (2012, April) Manitoba Health. Accessed December 11, 2018.
- 4.3. [Routine Practices and Additional Precautions In All Health Care Settings, 3rd edition](#). (2012, November). Provincial Infectious Diseases Advisory Committee (PIDAC). Accessed December 11, 2018.
- 4.4. Winnipeg Regional Health Authority Occupational and Environmental Safety and Health (OESH) Program. Defined for clarity and standardization within WRHA documents.

Communication Form Contacts:

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Appendix A: Cleaning and Disinfection Instruction for Upper Extremity Supportive Devices

Any Upper Extremity Supportive Device (UESD) used in the workplace can be an Infection Prevention and Control (IP&C) concern if this device interferes with hand hygiene or has contact with a patient/client/resident (P/R/C).

- Cleaning and/or disinfection of these devices must be performed:
 - At least once daily
 - Immediately when visibly soiled
 - According to manufacturer's cleaning/disinfecting instructions. If these are not available, follow the provided cleaning/disinfecting instructions for materials commonly used in the manufacture of these items
- Refer to the IP&C Operational Directive: [Cleaning and Disinfection of Non-Critical Reusable Equipment/Items for Patients in Hospital](#).
- If possible, have an extra device for use to ensure cleaning/disinfection can be done daily.
- If purchasing a pre-made or custom made device, inform the prescribing health care provider and/or store consultant it will be used in a clinical setting and will need to be cleaned and disinfected at least once daily.

Upper Extremity Supportive Device	
Material	How to clean
<p><u>Thermoplastic</u> Custom made by Occupational Therapists. This material does not absorb liquids. Fabric straps used to secure the device are usually made of an absorbent fabric that tends to stay wet (see fabric). These devices may be able to be held in place by tape that can be changed when soiled. Discuss options for securing UESD with your Occupational Therapist.</p>	<ul style="list-style-type: none"> • Can be removed for cleaning and disinfection of the device. • Can be cleaned then disinfected with a facility-approved disinfectant. • Plastic devices with holes (e.g., perforated splinting materials) are very difficult clean. Consider other materials first whenever possible.
<p><u>Fabric</u> Fabric covered orthotic devices are common. Fabric will absorb fluids and be contaminated with microorganisms and are difficult to appropriately clean and disinfect.</p>	<ul style="list-style-type: none"> • Wash fabric with mild soap and water. • Following this, rinse with water • Wash fabric with water and disinfectant. • Hang item to air dry.
<p><u>Straps</u> Fabric straps will absorb some liquids and Velcro™ straps do not perform well when they are wet (they do not adhere). When they are wet, the straps can provide a good environment for germs to develop.</p>	<ul style="list-style-type: none"> • Straps can be cleaned with water and soap and a disinfectant. • Air dry completely before use. • Replace fabric and straps if they become soiled and are unable to be cleaned and disinfected.

Upper Extremity Supportive Device	
Material	How to clean
<p><u>Water Resistant Casts</u> These casts are water resistant. Some casts (e.g., Exos™) can be cleaned frequently, and can be removed for cleaning. While these casts are water resistant, they should not be immersed in water for an extended period of time. Direct Care Staff should check with the clinic/hospital where the cast was put on to see how long the cast can be immersed in water.</p>	<ul style="list-style-type: none"> • Can be scrubbed with soap and water
<p><u>Leather</u> Though rarely used, some devices may be still made of, or covered, with leather. Leather will absorb liquids and does not dry readily. Avoid this material for upper extremity support devices for Direct Care Staff.</p>	<ul style="list-style-type: none"> • Repeated washing or spraying with water can damage this material. • A disinfectant will also damage the leather. • It is best cleaned with leather cleaner or saddle soap.
<p><u>Foam</u> Open cell foam absorbs liquids and has many open cells that can become contaminated with germs and will be hard to clean. Avoid this material for upper extremity support devices for Direct Care Staff.</p> <p>Closed cell foam is only used in the immediate post-surgical phase, and therefore will not be used for staff that are able to return to work. Dense foam does not absorb liquids, but can become soiled. It must be secured with straps (see fabric).</p>	<ul style="list-style-type: none"> • Foam can only be cleaned with soap and water; a disinfectant may damage the foam. • Dense foam can be cleaned with a disinfectant and water • Allow to air dry (it will be slow to dry).
<p><u>Plaster & Fiberglass Casting Material</u> Keep dry. Avoid this material for upper extremity support devices for Direct Care Staff.</p>	<ul style="list-style-type: none"> • There is no product on the market designed to clean/disinfect the outside surface of these casts.
<p><u>Slings</u></p>	<ul style="list-style-type: none"> • Wash with soap and water; air dry before reuse.

If you have further questions, please discuss with OESH/designate and/or IP&C/designate.