INFECTION PREVENTION & CONTROL COMMUNICATION FORM
CLEANING AND DISINFECTION OF JETTED TUBS

PART 1: ISSUE & RECOMMENDATIONS

Issue:

The purpose of this document is to standardize cleaning and disinfection practices for jetted tubs within the Winnipeg Health Region.

- Jetted tubs include hydrotherapy, extremity (arm, leg), as well as any other tub with jets.
  - Note: Air jetted tubs and chlorinated tubs or pools are not within the scope of this document.
- Jetted tubs have the potential to act as reservoirs in the spread of infection.
- Agitation of water by jets increases the risk of aerosol generation and inhalation of microorganisms.
- There is potential for contact with, and exposure of open wounds or mucous membranes (e.g., perineum) in jetted tubs.

Recommendations:

1. Clean and disinfect all jetted tubs and associated plumbing with an intermediate level disinfectant after each use.[3, 4, 5, 6]
   - Extremity jetted tubs and associated tubing, when used for patients with intact skin, are an exception and may be cleaned and disinfected with a low level disinfectant.
2. Cap unneeded jets with a manufacturer-approved cap. Jet capping includes completely removing the whirlpool system, tubing, motor and supportive components.
3. Replace jetted tubs with non-jetted tubs or showers during renovations.
4. Assess appropriateness of use of jetted tubs for patients with non-intact skin on a case-by-case basis.[5]

PART 2: BACKGROUND: DISCUSSION OF ISSUE, OPTIONS AND ANALYSIS AND REFERENCES

Discussion of Issue:

- Jetted tubs require intermediate level disinfection due to increased risk for infection transmission resulting from both exposure to aerosolized water that has been in tubing which cannot be effectively cleaned and dried, as well as exposure to mucous membranes or non-intact skin.
  - Water in jetted tubs may transmit microorganisms through ingestion, inhalation, or contact with mucous membranes or wounds.[6]
- Literature reports indicate infections due to transmission of microorganisms such as Pseudomonas and Mycobacteria from jetted tubs[2].
- Sources of microorganisms include patients/residents/clients, as well as tap water.
- Exposure of mucous membranes, open wounds, and non-intact skin increases the risk of microorganism transmission.
- The potential for use of extremity tanks with non-intact skin may lead to microorganism transmission, even though there may be no exposure to mucous membranes or open wounds.[7]
- Intermediate level disinfectants kill vegetative bacteria, most viruses and most fungi but not resistant bacterial spores. Note: intermediate level disinfectants are effective against mycobacteria.[4]
- Low level disinfection is adequate for extremity jetted tubs used for patients with **intact** skin.
- Jets in tubs may be capped to avoid:
  - Increased risk posed by jetted tubs
  - Need for additional cleaning and disinfection required for jetted tub plumbing.

Options and Analysis:

1. Clean and disinfect all jetted tubs and associated plumbing, with an intermediate level disinfectant after each use. Additional cleaning/disinfection may be required per manufacturer's recommendations.
2. Cover jets with a manufacturer-approved cap. Jet capping includes completely removing the whirlpool system, tubing, motor and supportive components.

3. Replace jetted tubs with non-jetted tubs or showers during renovations.
4. Assess appropriateness of use of jetted tubs for patients/residents/clients with non-intact skin on a case-by-case basis.[6]
5. Manitoba Health[5], Public Health Agency of Canada[3], and the Centers for Disease Control and Prevention[6] recommend intermediate level disinfection for jetted tubs and associated tubing although PIDAC has recommended low level disinfection[1]. Evidence regarding the level of disinfection required is not strong[5].

References:

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