State of Kuwait
Ministry of Health
Infection Control Directorate

Infection control Guidelines at
Physiotherapy-Hydrotherapy

2007
Infection Control Policy at Physiotherapy Setting

I. General Precautions:
♦ Hand washing should be routinely done between patients.
♦ Bed sheets should be changed between patients.
♦ Equipment or any part of equipment in contact with the patient should be cleaned by wrapping with alcohol/hibisol or washed with soap and running water.
♦ Dirty linen should be disposed adequately.
♦ Any blood spillage should be cleaned with a solution of sodium hypochlorite (presept 2.5g tablet) 7 tablet in 1liter of water.

II. Special precautions for infected cases:
♦ Any infection whatever the site should be clearly mentioned on the top of physiotherapy request by the managing staff (doctor or nurse).
♦ Any contagious case should be placed in private room for waiting and management.

A. Contact precautions
Many infections can be transmitted by contact such as: MRSA, MRGN, pneumonia, rubella, pharyngitis, cutaneous, diphtheria, skin or wound or burn.
For these infections, masks and gloves are indicated. If soiling is likely with infective material, gown should be wearer.

B. Respiratory precautions
Infection can spread through airborne such as in: measles, meningitis, mumps, pertussis, pneumonia, pulmonary or tuberculosis.
For such infections mask is indicated but gown or glove is not.

C. Blood/Body fluid precautions
HIV, hepatitis B and C, malaria and syphilis can be transmitted through blood and body fluids. So gowns and gloves are indicated if soiling is anticipated.
Also hands should be washed immediately if they are potentially contaminated. Care should be taken to avoid needle stick injuries. Used needle should be placed in puncture resistant container. Blood spills should be cleaned up promptly.

**D. Strict precautions**

Diphtheria, chicken pox (varicella zoster) in immuno-compromised patients or Lassa fever requires strict isolation with mask, gown and glove for all people in the room.

**Remember....**

For all infected cases, any article contaminated with infective material should be discarded or bagged in heat soluble double bag and labeled as contaminated before being sent to laundry.

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**Infection Control Policy at Hydrotherapy Setting**

**Introduction**

Hydrotherapy means both immersions in a tub showers in running warm water, provided these procedures contribute to the healing process. In hydrotherapy, water is used in the treatment of several illnesses. However, it might present microorganism due to lesions in the patients or contamination of the source. Pseudomonas is able to thrive in moist environments, grow with minimal nutritional requirements, tolerate a variety of temperatures, and is innately resistant to antibiotics (APIC, 1996). Potential routes of infection include incidental ingestion of the water, sprays and aerosols, and direct contact with wounds and intact skin (folliculitis). Health-care facilities should maintain stringent cleaning and disinfection practices in accordance with the manufacturer’s instructions.

**Cleaning/disinfecting procedures**

1. Wear appropriate personal protective equipment (PPE) for all cleanings.
2. Drain all water from the tub and rinse the inside surface of the tub with clean water from the shower hose.

3. Close the drain and fill the tub with cool water until the intake valve is covered.

4. In the tub basin, prepare at least an intermediate level disinfectant solution using an Environmental Protection Agency (EPA) registered product in accordance with the manufacturer’s instructions. In the absence of an EPA-registered product for water treatment, add sodium hypochlorite to the water; maintain 15-ppm chlorine residual in the water of small hydrotherapy tanks, Hubbard tanks, and tubs.

5. Scrub the interior of the tub using the prepared disinfectant solution from the bottom of the tub/foot well. Scrub chair, foot well. Scrub chair, footpads and any other components.

6. Circulate the disinfectant cleanser for the prescribed time according to the manufacturer’s instructions. This is necessary in order to ensure adequate contact time between the disinfectant and all internal surfaces.

7. Open the drain, direct water from the shower spray into all inlets until the water discharging from the outlets is clean water. At this point, the tub is ready for use.

8. It is also recommended that the tank be thoroughly cleaned with a disinfectant-detergent, rinsed, wiped dry with clean clothes, and not filled until ready for use.

**Periodic Bacteriological Examinations.**

This provides valuable information about pool conditions not given by routine chemical and physical tests. Hydrotherapy pool waters should be tested for aerobic colony count ACC at 37°C for 24hrs, Pseudomonas aeruginosa, E.coli and Coliform bacteria.

<table>
<thead>
<tr>
<th></th>
<th>Volume</th>
<th>Acceptable level</th>
<th>Action</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Escherichia coli</td>
<td>100 ml</td>
<td>0</td>
<td>&gt;0</td>
<td>If &gt;0 immediate consultation and investigation required</td>
</tr>
<tr>
<td>Coliform bacteria</td>
<td>100 ml</td>
<td>0</td>
<td>&gt;10</td>
<td>Acceptable Provided that: a) Coliforms are not found in</td>
</tr>
</tbody>
</table>
repeat sample
b) The aerobic colony count is less than 10cfu/ml.
c) There is no E.coli present.
d) The residual disinfectant and pH values are within recommended ranges

<table>
<thead>
<tr>
<th></th>
<th>100 ml</th>
<th>0</th>
<th>&gt;0</th>
<th>If &gt;0 immediate consultation and investigation required.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ps. Aeruginosa</strong></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td><strong>Colony count 37°C 24± 1hrs</strong></td>
<td>1 ml</td>
<td>&lt;10</td>
<td>&gt;100</td>
<td>If &gt;10 report as unsatisfactory If &gt;100 immediate consultation and investigation required</td>
</tr>
</tbody>
</table>

- Counts 11 – 100 cfu/ ml are unsatisfactory but require investigating.
- Counts over 100 cfu/ml are unacceptable and require immediate consultation and further investigation as does the presence of Ps. Aeruginosa. E.coli when present indicates fecal pollution.

Reference:

1. APIC Manual. (1996). Selected infectious diseases and other topics of epidemiological significance; Association for professionals in infection control epidemiology (APIC); p. 73-74.

2. PHLS. Hygiene for Hydrotherapy Pools. 2nd ed. London; PHLS; 1999. The Microbiological Examination of Water Samples. Issue No: 2 Issue date: 06.12.05 Issued by: Standards Unit, Evaluations & Standards Laboratory Page 2 of 26 Reference no: QSOP 57i2
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