

Dialysis Hand Hygiene Practice Guidelines

Background:

In a dialysis setting the risk of transmission of infection for all patients and healthcare workers is high due to repetitive invasive procedures and blood handling. It is extremely important to meet the requirements for optimal hand hygiene, despite the high number of opportunities for hand hygiene.

The following example of dialysis hand hygiene guidelines has been adapted from the WHO Hand Hygiene in Outpatient and Home based care and long term care facilities⁽¹⁾.

HHA recognise that the dialysis process is very specific to each dialysis unit and each individual patient. The following is meant only as a guide of how to apply the 5 Moments for Hand Hygiene in a dialysis setting, not to indicate the gold standard.

Note: Hand hygiene moment 1 – hand hygiene before touching the patient and / or the dialysis machine. The dialysis machine becomes the “patient” once it is connected. Therefore HH should be performed before and after touching the machine. However, HH is not required between touching the machine and touching the patient (as they are both considered the one entity)

METHOD

Prior to patient arrival ⁺

- 1. Hand Hygiene**
2. Set up dialysis machine / Prime circuit

Connection:

1. Patient arrives, sits self in chair/bed, while nurse arrives wearing PPE[#] except gloves
- 2. Hand Hygiene**
3. Nurse checks patient observations, checks dialysis site & positions patient
4. Nurse documents in chart
5. Nurse sets the parameters on the machine
- 6. Hand Hygiene**
7. Nurse sets up sterile field & all equipment required
- 8. Hand Hygiene**
9. Nurse dons gloves*, inserts needles and connects dialysis circuit
10. Nurse clears waste and removes gloves
- 11. Hand Hygiene**
12. Nurse adjusts machine
13. Nurse checks patient observations and documents in chart
14. If leaving the patient the nurse removes PPE
- 15. Hand Hygiene**

During dialysis:

- 1. Hand Hygiene**
2. Nurse checks patient observations and documents in chart, or assists patient in any way
- 3. Hand Hygiene**

Disconnection:

1. Nurse arrives wearing PPE[#] except gloves
- 2. Hand Hygiene**
3. Nurse checks patient observations and documents in chart
4. Nurse adjusts machine for disconnection
5. Helps patient prepare for disconnection
- 6. Hand Hygiene**
7. Nurse dons gloves* removes needles and discards in sharps container, discards waste while patient applies pressure
8. Nurse removes gloves
- 9. Hand Hygiene**
 - a. Nurse may go to other patient whilst waiting for haemostasis – Nurse removes PPE if leaving the patient
- OR**
- b. Nurse checks patient site for bleeding, changes covering if necessary
- 10. Hand Hygiene**
11. Nurse completes patient observations and discharges patient
- 12. Hand Hygiene**

After patient departure:

1. HCW collects cleaning equipment and cleans patient area
- 2. Hand Hygiene**

⁺ In some dialysis units the dialysis machine is set up prior to patient arrival, or on patient arrival. In other units, or for subsequent patients the dialysis machine may be primed at Connection Step 7.

[#] PPE used will depend on the dialysis unit protocol. This does not affect the hand hygiene requirements.

*Type of gloves used will depend on the type of access port used, or the dialysis unit protocol. This does not affect the hand hygiene requirements.

Notes:

The patient zone corresponds to the patient and his surroundings, including the bed or the armchair, the bedside table, the dialysis machine, and the other medical tools dedicated to the patient. All surfaces and medical equipment should be cleaned and decontaminated after use at the end of the patient's dialysis session with particular attention paid to the dialysis machine, including the external surfaces and panel⁽²⁾.

Further Hand Hygiene may need to be performed in the above scenario where:

- IV medications are administered. Hand Hygiene should be performed before preparing the IV medications and after disposing of sharps.
- Contact is made with body fluids. Hand hygiene should be performed immediately after this before returning to the patient
- The nurse leaves the patient zone. Hand hygiene should be performed on exit and reentry to the patient zone

Tourniquets are commonly used on multiple patients and have the potential to become highly contaminated⁽³⁾. Tourniquets are non critical items and require thorough cleaning between patients⁽⁴⁾. Where practicable, a single use tourniquet should be used for each patient.

- Touching an applied tourniquet after performing hand hygiene can recontaminate the users hands (with the patients own skin flora).
- After performing hand hygiene and donning gloves for needle insertion it is best practice NOT to manipulate the applied tourniquet, although this may be unavoidable due to individual patient or clinician needs, and to protect a fistula.
 - If the tourniquet is touched after donning gloves, (e.g. for tightening and releasing purposes) contact should be kept to a minimum.

References:

1. World Health Organization. Hand Hygiene in Outpatient and Home-based Care and Long-term Care Facilities: A Guide to the Application of the WHO Multimodal Hand Hygiene Improvement Strategy and the "My Five Moments for Hand Hygiene" Approach. Geneva: World Health Organization; 2012.
2. Recommendations for preventing transmission of infections among chronic hemodialysis patients. MMWR Recomm Rep. 2001 Apr 27;50(RR-5):1-43.
3. World Health Organisation. WHO guidelines on drawing blood: best practices in phlebotomy. Geneva: World Health Organisation Press; 2010. Available from: http://www.who.int/injection_safety/phleb_final_screen_ready.pdf.
4. NHMRC. Australian Guidelines for the Prevention and Control of Infection in Healthcare. Commonwealth of Australia; 2010.