



INFECTION IN DIALYSIS PATIENTS BASIS & PREVENTION



Infection in Dialysis Patients – Why?

Patients who undergo dialysis treatment have an increased risk of getting a healthcare associated infection (HAI). Hemodialysis patients are at higher risk for infection because the process of hemodialysis requires frequent use of catheters or insertion of needles to access the bloodstream. Hemodialysis patients have weakened immune systems which increases risk of infection, and they require frequent hospitalization and surgery where they might easily acquire an infection.

Greatest Risk

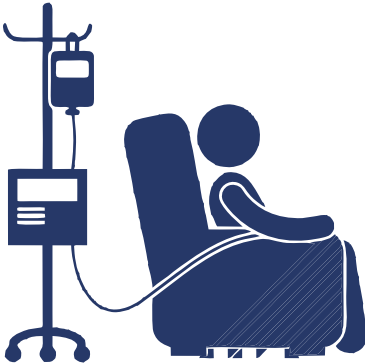
Dialysis patients are at risk of getting hepatitis B and C infections as well as other blood stream infections. Of particular concern in the dialysis setting is the fact that hepatitis B and C virus can live on surfaces like dialysis chairs and machines and can be spread even with no visible blood.

Source of Infection

Infection like Hepatitis B and C and bloodstream infections are spread from patient to patient most commonly by the hands of healthcare workers.

Hemodialysis Machines can also be source of infection. Contamination of the blood with waterborne organisms may occur in several ways:

- A leak in the system
- Contamination of the water source
- Rapid growth of bacteria in dialysate
- Colonization of the patient through contact contamination



PREVENTION

Hand Hygiene

- Unwashed hands of healthcare workers are the major route of transmission of microorganisms in healthcare settings.
- Hand washing is the most basic care in dialysis patient-clean hands before and after every patient contact.
- Hand hygiene includes hand washing with soap and water and/or applying an alcohol-based hand rub.

Equipment Cleaning

- Dialysis machine should be internally disinfected, externally cleaned and dried after each patient.
- The exterior of the machine should be effectively cleaned using protocols following manufacturer's instructions.
- Special attention should be given to cleaning control panels on the dialysis machines and other surfaces that are frequently touched and potentially contaminated with blood.
- Cleaning of non-critical surfaces e.g. bed, chair, countertops should be done with neutral detergent and warm water.

Clinicians Need To Follow The Basics Of Infection Control

- Promote fistula use
- Get catheters out when not needed
- Improve catheter care
- Talk to patients about good vascular access care

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Recommendations

- Practice standard precautions, minimize contact with blood and body substances by utilizing safe work practices and protective barriers i.e., face masks, goggles etc.
- All patients should be tested for HBV, HCV and HIV on admission to the dialysis unit including after transfer from another unit.
- All routine patients should be retested regularly at every six months for HBV, HCV and HIV infection.
- Every facility must include an isolation room for treatment of HBV/HCV patients. Where separate room is not possible there must be a separate designated area for HBsAg positive patients.
- Perform monthly hand hygiene observations.
- Perform regular observations of vascular access care and catheter accessing procedures.

Have A Regular Self-Audit

Medical and administrative record should demonstrate recognition of any potential infection and action taken to decrease the transmission of the infection.

Vaccination in Dialysis Patients

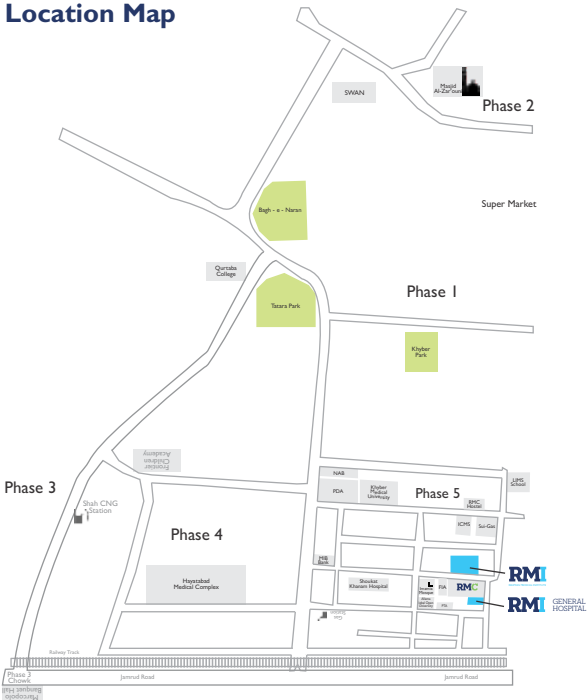
Dialysis patients mount reduced immune responses compared to the general population. These patients should receive influenza and pneumococcal vaccinations at regular intervals.

Staff Training

All staff in Dialysis units should be trained in infection prevention and control practices including:

- Proper Hand Hygiene technique
- Appropriate use of personal protection equipment
- Modes of transmission for BBV, pathogenic bacteria and other microorganisms
- Rationale for segregating patient
- Correct techniques for initiation, care and maintenance of dialysis access sites.

Location Map



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