

RENAL CARE SOCIETY OF SOUTH AFRICA COVID-19 GUIDELINES FOR DIALYSIS UNITS

1. Background

The global pandemic of coronavirus disease 2019 (COVID-19) was first reported on 31 December 2019 by the World Health Organization following a cluster of pneumonia cases in Wuhan City, Hubei Province of China. Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) has been confirmed as the causative virus of COVID-19. COVID-19 has become a global pandemic which is continuing to spread across the globe.

People with kidney disease or other severe chronic medical conditions seem to be at higher risk for COVID-19. These guidelines have been developed in order to reduce the risk of COVID-19 transmission in renal dialysis units and should be read in conjunction with the recommendations by the World Health Organisation (WHO), the Centre for Disease Control (CDC), the National Institute for Communicable Diseases (NICD), the National Department of Health (NDoH) and unit-specific protocols with regard to COVID-19.

2. Routes of Transmission

There are only two known routes of transmission (WHO recommendations):

- Via respiratory droplets produced when sneezing, and/or coughing which is directly inhaled from person to person
- Via respiratory droplets landing on environmental surfaces surrounding the infected person which are then transferred by the contact route via contaminated hands to a person's face and mucous membranes of mouth, nose and eyes.

3. Roles and responsibilities of managers and staff

- Containment and management of COVID-19 suspected and infected patients within health facilities depends on all staff members and patients understanding and adhering to the relevant policies and procedures.
- Frequent hand washing and use of alcohol-based hand rub (ABHR) as frequently as possible.
- Correct cough etiquette and respiratory hygiene.
- Social distancing. Keep up to 1.5 to 2m when in contact with other people.
- Do not touch your face unless your hands are clean.
- Personal Protective Equipment (PPE) should be procedure based.
- It is not necessary to wear face masks if you are asymptomatic, or in self isolation.

4. PREVENTION MEASURES

4.1 Standard Precautions

Patients and staff may serve as reservoirs for microorganisms, even if only colonized and not exhibiting any signs of infection. Standard Precautions are the basic level of infection prevention measures and must always be practiced. This includes the 5 Moments of Hand Hygiene as recommended by the WHO. Please refer to this link: <https://www.who.int/infection-prevention/campaigns/clean-hands/5moments/en/>

4.2 Screening

Patients with COVID-19 may be asymptomatic or symptoms may appear 2–14 days after exposure. Patients with symptoms, those who have travelled to endemic areas, or those who have had contact with persons infected with COVID-19 should be asked to call ahead to the dialysis facility to anticipate their arrival.

- All patients to have their temperatures screen at the entrance to the dialysis unit. UM's will assign this duty on a daily basis. Temperature of staff will be checked on a daily basis and recorded and forwarded to line managers.
- No visitors will be allowed into the premise. Family may assist patient into waiting area and leave immediately. IP protocols apply to all.
- Transport department are advised not to allow any patient that present with flu like symptoms in vehicle. Our driver has been instructed to sanitized all patients' hands and check temperatures at pick up. In the event that a patient presents with flu-like symptoms, the unit manager will be informed and patient will be advised to self-isolate at home. Um's will thereafter decide on management of such patients.
- All our patients should be advised not to present themselves to the renal unit if they present with flu like symptoms. They are required to call the renal unit.

Screening personnel at a single entry to the facility should ask all patients these questions upon arrival. If patients answer yes to any of these questions, they should be required to wear a face mask and be directed to a room away from the general waiting room. Medically stable patients can wait for evaluation in their private vehicle, outside the dialysis facility or in an isolation area. It is our recommendations for all patients to be masked when entering dialysis unit. All staff are required to wear masks at all times in the Dialysis unit. NO FAMILY MEMBERS ALLOWED TO ENTER THE UNIT. Dialysis beds to be at least 2metres away from each other. Where possible fewer patients to be dialysed so as to have enough space between dialysis chairs.

Patients with fever, new cough, or dyspnoea, and those who have come into contact with people who are infected or travelled through areas with high incidence of infection should be treated as if they are infected with COVID-19 until definitive testing can be completed. As testing for the virus becomes more accessible, patients can later be most appropriately cohorted. Patients with progressive dyspnoea, signs of organ dysfunction, or evidence for adult respiratory distress syndrome should be immediately referred to hospital. Any staff member who is not well to be tested and to do self-isolation till results are back.

4.3 Patient placement

Best efforts must be made to isolate patients with suspected or confirmed COVID-19. Separate rooms with the door closed may be used if available. If no separate room is available, patients suspected to have COVID-19 should be dialyzed on a designated isolation shift or in a designated COVID-19 facility. If patients with COVID-19 must be treated at the same time as patients who are asymptomatic, patients who are symptomatic should be treated in a corner or end-of-row station. Patients with confirmed or suspected COVID-19 must wear masks. At least 2 meters of separation should be maintained between masked patients who are symptomatic and others. All curtain screens should be half drawn between all patients.

4.4 Patient & Staff education

4.4.1 All staff and patients need to be educated in a language they clearly understand regarding the prevalence and management of COVID 19.

4.4.2 Patients must receive information brochures which must include essential contact numbers like COVID 19 hot line.

4.4.3 Patients should be instructed on the proper use of face masks.

4.4.4 Tissues should be provided and patients instructed to cover nose and mouth when coughing or sneezing, and to discard tissues in a plastic-lined waste receptacle with a lid.

4.4.5 Patients on haemodialysis should not bring their own food containers or any other items that could get contaminated into the dialysis unit.

4.4.6 All patients and staff should avoid unnecessary travel.

4.4.7 Social distancing should be practiced.

4.5 Personal protective equipment (PPE): To be used as per WHO, NICD & DoH Guidelines

COVID-19 is generally spread by droplets expelled by coughing or sneezing. Faecal or direct-contact contamination may also occur. Dialysis staff should employ standard contact and droplet precautions, by using:

- Gloves sterile and non-sterile
- Face mask
- Apron (or gown)
- Goggles or face shield
- N95 respirator (when performing aerosol generating procedures)

There might be a need to deploy PPE for many weeks or months in this current pandemic, care must be taken to establish policies that will not exhaust available supplies of these precious resources.

In the current environment of pandemic viral infection, standard surgical face masks are acceptable. N95 masks should be prioritized for procedures that are likely to generate respiratory aerosols. The use of face masks by healthy people to protect themselves from respiratory diseases such as COVID-19 must be discouraged. It is recommended that only patients with cough or other symptoms, who are within 1 meter of each other, (including patients being transported) and by clinical personnel caring for these patients, use face masks.

Use of Personal Protective Equipment (PPE) policies must be reviewed and all staff should sign acknowledgment of understanding.

4.5.1 Eye protection:

Eye shields or goggles should be used by all personnel caring for patients with COVID-19 to avoid droplet spread *via* the eyes.

Reusable shields and goggles should be cleaned and disinfected according to manufacturers' reprocessing instructions.

4.5.2 Isolation gowns:

These gowns should be worn over laboratory coats, scrub suit, or street clothes. If gowns are in short supply, they should be prioritized for initiating and terminating dialysis, manipulating access needles and catheters, assisting patients to and from the dialysis station, and cleaning and disinfecting the dialysis station.

4.5.3 Doffing PPE

Please follow this link for information on the procedure for removing PPE after use:

https://www.who.int/csr/disease/ebola/remove_ppequipment.pdf

4.6 Environmental disinfection

4.6.1 Dialysis units must be decluttered, and all unnecessary equipment and items removed.

4.6.2 All equipment including the dialysis machine, chair, dialysis station surfaces, stethoscopes, and equipment including BP cuffs, clamps must be thoroughly disinfected between dialysis sessions using either disinfection wipes and/or bleach as per protocol.

4.6.3 Unit assistants should use the same PPE as caregivers for patients infected with COVID-19.

4.6.4 Ensure that all dialysis beds and chairs are in good condition with no tears.

4.6.5 All wall and floor surfaces must be washable, i.e. no carpets, curtains or fabric blinds.

4.6.6 Treatment areas should be thoroughly cleaned at least 2 times per day.

4.7 Linen management

- 4.7.1** All onsite and offsite facilities that process or launder linens for healthcare must have documented operating policies consistent with regulations.
- 4.7.2** Handle all used linen with care to avoid dispersal of microorganisms into the environment and to avoid contact with staff clothing.
- 4.7.3** Manage all linen used for a person suspected or confirmed to have COVID-19 infection as for heavily soiled linen.
- 4.7.4** Wear a long-sleeved fluid-resistant gown and disposable gloves during handling of soiled linen to prevent skin and mucous membrane exposure to blood and body substances.
- 4.7.5** Remove the long-sleeved gown and disposable gloves and perform hand hygiene following the handling of soiled linen.

4.8 Visitors

- 4.8.1** STRICTLY NO VISITORS should be allowed into the dialysis treatment area
- 4.8.2** Exceptions include the caregiver of an admitted child, and close family members of patients who are extremely ill but this remains at the discretion of the staff member in charge. They must wear a surgical face mask and should be instructed on hand hygiene and social distancing.
- 4.8.3** Visitors reporting to drop-off or collect patients need to wait outside the treatment area.
- 4.8.4** Patients in need of assistance must be assisted to the waiting area by dialysis staff and the wheelchair used need to be thoroughly disinfected before transporting the next patient.
- 4.8.5** Waiting time in the patient waiting areas must be limited and a 1-meter distance between patients with no physical contact should be observed.

4.9 Other measures

- 4.9.1** To reduce the risk of cross contamination, staff administering treatment to COVID-19 patients should not be rotated between asymptomatic patients.
- 4.9.2** Patients and staff should receive the flu vaccine as a precautionary measure.
- 4.9.3** To reduce patient exposure to the hospital environment and reduce the chance of transmission, reducing the number of haemodialysis sessions per patient per week could be considered. Patients should be counselled regarding fluid & dietary control. Dialysis efficiency must be maximised.

5. Peritoneal Dialysis

- 5.1** Peritoneal dialysis patients are to self-quarantine.
- 5.2** Waste fluid and disposables must be discarded as per environmental policy:

Reference: <https://www.nicd.ac.za/wp-content/uploads/2020/04/COVID-19-ENVIRONMENTAL-HEALTH-GUIDELINE-1-3.pdf>

6. Transplantation

- 6.1** In units with kidney transplant facilities, the frequency of follow-up visits for patients who have had a renal transplant could, where possible, be extended in order to reduce the patients' exposure to the hospital environment.
- 6.2** Patients should be supplied with sufficient medication for this period.
- 6.3** Patient to be encouraged to use the online consultation with healthcare practitioners. .gbh

7. Acute dialysis

- 7.1** All admitted medical patients should be dialysed in their units or wards and not be moved to chronic dialysis facilities for dialysis.

7.2 Dialysis equipment must be thoroughly cleaned & disinfected after use as per unit protocol and manufacturers' guidelines.

7.3 Where possible, dedicated dialysis machines must be used.

8. Additional Resources

- <https://www.who.int/emergencies/diseases/novel-coronavirus-2019>
- <https://sacoronavirus.co.za/>
- <https://www.nicd.ac.za/diseases-a-z-index/covid-19/>

9. Reporting

It is critical that dialysis facilities that encounter patients with possible COVID-19 communicate promptly with their local health authorities. Best practices change as we all learn more about this infection. All staff must ensure that they remain informed about new or updated guidelines. These Guidelines may change as and when new information comes to light.

RCSSA EXCO

Mr. Jonathan Maree – Renal Unit, Groote Schuur Hospital (President elect RCSSA)

Prof David Mphuthi – Dept of Health Science, UNISA (President RCSSA)

Mr. Mark Padavattan – Renal Unit, Kwazulu Dialysis (Deputy President RCSSA)