National Health Mission  
SDA Complex, Kasumti, Shimla-9  
Himachal Pradesh  
Dated: Shimla-171009, the

To

All the Chief Medical Officers  
In Himachal Pradesh

All the Medical Superintendents  
in Himachal Pradesh

Subject :-  
Regarding Guidelines/ Advisories issued by MOHFW, GoI

Sir/Madam,

Please find enclosed guidelines/ advisories received from Ministry of Health & Family Welfare, Government of India regarding Dialysis of Covid-19 Patients, Mental Health care of Elderly and Mental Health Care of Children for further necessary action as suggested.

Endst. No. As above, Dated Shimla-9 the
Copy for information to:  
1. The Additional Chief Secretary (Health) to the Government of Himachal Pradesh.  
2. All the Deputy Commissioners, Himachal Pradesh  
3. The Director Health Services, Himachal Pradesh

[Signature]
Special Secretary (Health) cum Mission Director, NHM  
Himachal Pradesh, Shimla – 9

[Signature]
Special Secretary (Health) cum Mission Director, NHM  
Himachal Pradesh, Shimla – 9
Government of India

Ministry of Health & Family Welfare

Guidelines for Dialysis of COVID – 19 patients
Guidelines for Dialysis with reference to COVID-19 Infection

COVID-19, a disease caused by a novel corona virus (SARS CoV-2), is currently a pandemic, which produces high morbidity in the elderly and in patients with associated comorbidities. Chronic kidney disease stage-5 (CKD-5) patients on dialysis [maintenance hemodialysis (MHD) or continuous ambulatory peritoneal dialysis (CAPD)] are also vulnerable group because of their existing comorbidities, repeated unavoidable exposure to hospital environment and immunosuppressed state due to CKD-5. These patients are therefore not only more prone to acquire infection but also develop severe diseases as compared to general population.

Patients on regular dialysis should adhere to prescribed schedule and not miss their dialysis sessions to avoid any emergency dialysis.

There will be three situations of patients who require dialysis; patients already on maintenance dialysis, patients requiring dialysis due to acute kidney injury (AKI) and patients critically ill requiring continuous renal replacement therapy (CRRT).

General Guidelines for Administration

1. State/UT should identify and earmark at-least one hemodialysis facility with adequate number of dialysis machines, trained staff, reverse osmosis (RO) water system and other support equipment as preparatory fixed-point dialysis unit in case of rise of Covid-19 epidemic.

2. Health departments may issue directives to the district administrations allowing easy movements of these patients (with one attendant) to dialysis facility. Patients who do not have private vehicles, government run transport system should be organized for facilitating transport of these patients. Patients should use their hospital papers as pass to commute to the dialysis unit.

3. District administration should ensure that service providers for the dialysis consumables, both for MHD and CAPD should be allowed to deliver the material to the hospital or home as the case may be.

General Guidance for Dialysis Unit

1. Adequate medical supplies such as dialysate, dialyzers and tubing, catheters, fistula needles, disinfectant and medicines etc. must be ensured in adequate quantity

2. A sign board should be posted prominently in the local understandable language as well as Hindi and English asking patients to report any fever, coughing or breathing problem in dialysis unit and waiting area. The information including images for education can be obtained on the International Society of Nephrology website https://www.theisn.org/covid-19

3. All hemodialysis units should educate their personnel in hemodialysis units; including nephrologists, nurses, technicians, other staff and all patients undergoing MHD along with their care givers about COVID 19
4. All universal precautions must be strictly followed.
5. All staff should strictly follow hand hygiene (seven steps) with soap and water for 20 second before handling any patient and in between two patients. If soap and water are not readily available, use a hand sanitizer that contains at least 60% alcohol. If hands are visibly soiled or dirty, they should be first washed with soap and water and then an alcoholic hand rub used. Avoid touching your eyes, nose, and mouth with unwashed hands.
6. Medical and support staff treating infected patients should be monitored for COVID infection at the dialysis facility and should take necessary action if found infected.
7. Dialysis units should organize healthcare workers shift duties in a way that work of dialysis unit is not affected.
8. All hemodialysis units should be aware of the testing, triage and notification policy recommended by the Union Ministry of health and Family welfare and those by State/UT Health Departments as well as District health authorities.
9. Some of the dialysis unit staff should be trained for donning and doffing of Personal Protective Equipment (PPE) so that they can be used for treatment of COVID-19 positive patients.
10. All staff should be trained for cough etiquette, hand hygiene and proper use and disposal of mask, gown and eye glasses and the need to protect themselves.
11. All patients with suspected COVID-19 be tested as per the local health authorities’ guidelines
12. Patients with suspected or positive COVID-19 should be referred to COVID-19 care team as per local guidelines

GUIDELINES FOR HEMODIALYSIS

I. For Patients
   a. Before Arrival to Dialysis Unit
      1. All units should instruct their patients to recognize early symptoms of COVID-19 (recent onset fever, Sore throat, Cough, recent Shortness of breath/dyspnea, without major inter-dialytic weight gain, rhinorrhea, myalgia/bodyache, fatigue and Diarrhea) and contact dialysis staff before coming to dialysis center. The unit needs to make necessary arrangement for their arrival in the screening area.
      2. Patients, who are stable on MHD may be encouraged to come to the unit alone without any attendant
   b. Screening Area
      1. We recommend that dialysis unit should have a designated screening area, where patients can be screened for COVID-19 before allowing them to enter inside dialysis area. Where this is not possible, patients may wait away from the dialysis unit until they receive specific instructions from the unit staff.
      2. The screening area should have adequate space to implement social distancing between patients and accompanying persons while waiting for dialysis staff. In screening area, every patient should be asked about:
         - Symptoms suspected of COVID-19 as above.
         - History of contact with a diagnosed case of COVID 19
- History of contact with person who has had recent travel to foreign country or from high COVID-19 prevalence area within our country as notified by the Central and State/UT governments respectively.

3. Patients with symptoms of a respiratory infection should put on a facemask before entering screening area and keep it on until they leave the dialysis unit. Dialysis unit staff should make sure an adequate stock of masks is available in screening area to provide to the patients and accompanying person if necessary.

4. There should be display of adequate IEC material (posters etc.) about COVID-19 in the screening area.

c. **Inside Dialysis Unit**

   1. Suspected or positive COVID-19 patients should properly wear disposable three-layer surgical mask throughout dialysis duration.

   2. Patients should wash hands with soap and water for at least 20 seconds, using proper method of hand washing. If soap and water are not readily available, a hand sanitizer containing at least 60% alcohol can be used.

   3. Patients should follow cough etiquettes, like coughing or sneezing using the inside of the elbow or using tissue paper.

   4. Patients should throw used tissues in the trash. The unit should ensure the availability of plastic lined trash cans appropriately labeled for disposing of used tissues. The trash cans should be foot operated ideally to prevent hand contact with infective material.

   5. There should be display of adequate IEC material (posters etc.) about COVID-19 in the dialysis area.

II. **For Dialysis Staff**

   a. **Screening Area**

      1. The unit staff should make sure an adequate stock of masks and sanitizers are available in screening area to provide to the patients and accompanying person if necessary.

   b. **During Dialysis**

      1. It should be ensured that a patient or staff in a unit does not become the source of an outbreak.

      2. Each dialysis chair/bed should have disposable tissues and waste disposal bins to ensure adherence to hand and respiratory hygiene, and cough etiquette and appropriate alcohol-based hand sanitizer within reach of patients and staff.
3. Dialysis personnel, attendants and caregivers should also wear a three-layer surgical facemask while they are inside dialysis unit.

4. Ideally all patients with suspected or positive COVID-19 be dialyzed in isolation. The isolation ideally be in a separate room with a closed door, but may not be possible in all units. The next most suitable option is the use of a separate shift, preferably the last of the day for dialyzing all such patients. This offers the advantage of avoiding long waiting periods or the need for extensive additional disinfection in between shifts. The next suitable option is to physically separate areas for proven positive and suspected cases. Where this is also not possible, we suggest that the positive or suspected patient may be dialyzed at a row end within the unit ensuring a separation from all other patients by at least 2 meters.

5. Staff caring for suspected or proved cases should not look after other patients during the same shift.

6. Dialysis staff should use of all personal protective equipment (PPE) for proven or strongly suspected patients of COVID-19. Isolation gowns should be worn over or instead of the cover gown (i.e., laboratory coat, gown, or apron with incorporate sleeves) that is normally worn by hemodialysis personnel. If there are shortages of gowns, they should be prioritized for initiating and terminating dialysis treatment, manipulating access needles or catheters, helping the patient into and out of the station, and cleaning and disinfection of patient care equipment and the dialysis station. Sleeved plastic aprons may be used in addition to and not in place of the PPE recommended above.

7. Separating equipments like stethoscopes, thermometers, Oxygen saturation probes and blood pressure cuffs between patients with appropriate cleaning and disinfection should be done in between shifts.

8. Stethoscope diaphragms and tubing should be cleaned with an alcohol-based disinfectant including hand rubs in between patients. As most NIBP sphygmomanometer cuffs are now made of rexine they should also be cleaned by alcohol or preferably hypochlorite-based (1% Sodium Hypochlorite) solutions however the individual manufacturer’s manuals should be referred to.

9. Staff using PPE should be careful of the following issues:

   - While using PPE, they will not be able to use wash room so prepare accordingly
   - After wearing eye shield, moisture appears after some time and visibility may become an issue. Therefore, machine preparation can be done in non-infected area before shifting to near the patient
   - If dialysis is to be done bed-side in the hospital, portable RO should be properly disinfected with hypochlorite (1% Sodium Hypochlorite) solution between use of two patients
**DISINFECTION AND DISPOSAL PRACTICES IN DIALYSIS UNIT**

- Bed linen should be changed between shifts and used linen and gowns be placed in a dedicated container for waste or linen before leaving the dialysis station. Disposable gowns should be discarded after use. Cloth gowns should be soaked in a 1% hypochlorite solution for 20 minutes before sluicing and then be transported for laundering after each use.

- Inside dialysis unit, clean and disinfect frequently touched surfaces at least thrice daily and after every shift. This includes bedside tables and lockers, dialysis machines, door knobs, light switches, counter tops, handles, desks, phones, keyboards, toilets, faucets, and sinks etc.

- It is recommended that solutions for disinfection be composed either of hypochlorite, alcohol, formaldehyde or glutaraldehyde for disinfection of surfaces in accordance with the manufacturer’s instructions. Almost all common disinfectant solutions are effective in killing the virus on surfaces, the key is effective and frequent cleaning.

- **Bleach solution**
  - Mix 1 liter of Medichlor with 9 liters of water. This solution can be used for upto 24 hours after which it should be discarded and a fresh solution prepared.
  - As an alternative 10 Grams of household bleaching powder can be dissolved in a liter of water and used for a period of 24 hours.

- **Alcohol based solutions**
  - Ensure solution has at least 60% alcohol. Appropriate commercially available solutions include Aerodosin a mixture of isopropanol, glutaraldehyde and ethanol or lysoformin a mixture of formaldehyde and glutaraldehyde can be used.

- Wear unsterile but clean disposable gloves when cleaning and disinfecting surfaces. Gloves should be discarded after each cleaning. If reusable gloves are used, those gloves should be dedicated for cleaning and disinfection of surfaces for COVID-19 and should not be used for other purposes. Clean hands by above method immediately after gloves are removed.

- For soft (porous) surfaces such as carpeted floor, rugs, and drapes, remove visible contamination if present and clean with appropriate cleaners indicated for use on these surfaces. After cleaning, launder items as appropriate in accordance with the manufacturer’s instructions. If possible, launder items using the warmest appropriate water setting for the items and dry items completely.

- Wear disposable gloves when handling dirty laundry from an ill person and then discard after each use. Do not shake dirty laundry. This will minimize the possibility of dispersing virus through the air.

- Clean and disinfect clothes buckets or drums according to guidance above for surfaces. If possible, consider placing a bag liner that is either disposable (can be thrown away) or can be laundered.
DIALYSIS PATIENT WITH ACUTE KIDNEY INJURY (AKI)

A small proportion of patients (~5%) of COVID – 19 develops AKI. The disease is usually mild but a small number may require RRT (Renal Replacement Therapy). In addition, even smaller proportion of patients with secondary bacterial infection will have septic shock, drug nephrotoxicity or worsening of existing CKD severe enough to require RRT (Renal Replacement Therapy).

- It is suggested that all modalities of RRT may be used for patients with AKI depending on their clinical status.
- Patient admitted in other ward of the hospital with AKI should be preferably given bed-side dialysis rather than shifting patient in main dialysis unit.
- In such situation portable reverse osmosis water in a tank will serve the purpose for the dialysis.
- If more dialysis is expected in selected area, dialysis machine may be left in the same area for future dialysis

CONTINUOUS RENAL REPLACEMENT THERAPY (CRRT)

- CRRT machines are free standing and can function anywhere in the hospital using sterile bagged replacement fluid and dialysate, but operating costs are high.

OTHER EXTRACORPOREAL THERAPY FOR COVID-19

- Use of cytokine removal therapies with Cytosorb, Oxiris and other similar devices is unproven and is not recommended except in the context of a clinical trial.
- Cytokine storm associated with elevated levels of IL-6, IL-18 and IFN gamma are associated with more severe disease and higher mortality. Extracorporeal therapies using high volume hemofiltration or adsorption to decrease cytokine levels may theoretically be expected to confer benefit and 1 study of HVHF at 6L/hr showed cytokine reduction and improvement in SOFA scores in septic patients.

PERITONEAL DIALYSIS

1. Patients already on CAPD
   - Patients who are already receiving peritoneal dialysis (PD) treatment have the relative advantage over patients who are receiving hospital or satellite-based haemodialysis treatment as they will not be exposed to hospital environment. This will reduce their exposure to infection. However, they should arrange their delivery of supply well in time to avoid missing dialysis exchanges.
   - Used dialysis bags and tubing should be properly disposed using 1% hypochlorite solution first and disposed in a sealed bag. Used dialysis fluid should be drained in the flush
2. New patient planned for CAPD
   - It will be difficult to maintain a service that can commence new patients on PD, mainly through a lack of healthcare worker to insert PD catheter and to provide the intensive training required. Therefore, initiation of new patient should be avoided.

3. Acute PD
   - Use of acute peritoneal dialysis can be lifesaving and should be used as and when required and, in the setting, where hemodialysis facility is not available. Health care worker should use all precautions while initiating acute PD and discard used consumables properly.

PERSONAL PROTECTIVE EQUIPMENTS (PPE)

Personal protective equipment must be used while dialyzing COVID-19 positive patients. These include:
   - Shoe covers
   - Gown
   - Surgical cap or hood
   - Goggles or eye shields
   - Mask: Ideally all masks should be N95 respirators with filters. However, as the life of such masks is approximately 6-8 hours and they can be uncomfortable over a long term and are also in short supply, they should be prioritized for aerosol generating procedures, namely intubation, open suction and bronchoscopy. Surgical triple layer masks and cloth masks can be used as alternatives for all other procedures.
   - Surgical gloves.

The correct method of donning and doffing personal protective equipment’s (PPE) can be viewed on YouTube at https://youtu.be/NrKo2vWJ8m8. However, it is always better to give hand on training of donning and doffing to staff who is going to handle suspected or positive patients.
Taking care of Mental Health of Children during COVID-19

The outbreak of COVID-19 and its consequences can make children anxious and stressed. Take care of their mental health with these simple strategies.

**PROVIDE ASSURANCE WHENEVER NEEDED**
It is important to reassure your children. Listen to their concerns and try answering their queries related to the outbreak. Spend quality time with them and give them the attention they need. Reading them stories to put them to sleep will make them feel loved.

**MANAGE YOUR CHILD’S ANXIETY**
It is normal for your child to become anxious at this time. Look out for the emotional cues in your child and talk to them regarding the same. Avoid being judgemental when they express their feelings. Do not avoid their questions related to COVID or speak to them harshly. This can increase their fear and anxiety. Instead, make them understand that things will be better if we take proper care. Remember that this is a new situation for your children and do not get irritated with them.

**KEEP THEM IN CONTACT WITH THEIR FRIENDS**
Physical distancing from friends can be a cause of distress for the children. Encourage them to talk to their friends, cousins and loved ones by calling them up or through video calls. You can also involve your children and their friends in some fun activities which they can do together by staying connected virtually.

**GIVE THEM CLEAR INFORMATION**
It is not advisable to provide children with a lot of reports and news related to the outbreak. However it is important to give them correct information as to what is happening around the world. Give them proper facts in a way that they can understand so that they do not remain confused, as this may increase their anxiety. You can make the explanations creative through pictures and drawings.

**ENGAGE THEM IN INDOOR ACTIVITIES**
During this time, children may get easily bored. Involve them in indoor games to cut down the boredom. You can also make their learning fun by giving them puzzles to solve and teaching them crafts. Encourage them to pick up a hobby. Involve the children in some stretching exercises, yoga or dancing which they will enjoy. You can also involve them in doing simple household activities to keep them engaged.

**MAKE A ROUTINE OF LEARNING AT HOME**
At this time, schools are closed, however this should not stop the children from learning. Ensure that they have a regular habit of studying by giving them small assignments related to their lessons. Check the assignments to understand their progress.

Above all, take good care of your children’s health. Ensure that they practise hand washing and cover their mouth and nose with bent elbow when they cough or sneeze. Watch out for any symptoms of COVID-19 and reach out to the doctor if necessary. Have a plan in advance in case your child falls sick. Ensure that the children eat healthy food and get good sleep and rest.

**IN CASE YOU NEED ANY HELP**
Please contact COVID-19 Psycho social toll free helpline at 080-46110007 or consult your doctor or a mental health professional.
Taking care of Mental Health of elderly during COVID-19

During the COVID-19 outbreak, all of us should take some extra time and care for ourselves. Follow some simple strategies to improve your well-being:

**SPEND TIME WITH FAMILY**
Spending quality time with family and getting involved in family discussions, while staying at home during this period will help reduce anxiety and distress. Try to connect with your family members through phone call or video call if they stay far from you.

**GETTING INVOLVED IN DAILY ACTIVITIES**
Keep doing small activities at home to reduce boredom. Keeping yourself busy in the daily activities like gardening, cleaning and cooking will help reduce anxiety. If there is no other family member to help you, identify a support system to buy groceries, medicines and other essentials.

**SPEND TIME ON RECREATIONAL ACTIVITIES**
During this stressful time, it is important that you make some time for things you like. Engage in recreational activities like solving puzzles, playing some board games like carrom board or chess, listening to music, reading etc. These will help reduce boredom.

**CONNECTING TO LOVED ONES**
During this time, you might be worried about your loved ones such as children and grandchildren, who stay away from you. Connect with them once in a while through phone calls or video call to keep the stress at bay and for any emergencies.

**MAKE SOME TIME FOR EXERCISE**
It is important to be physically active. Simple stretching exercises, simple yoga postures, walking indoors or meditation will be beneficial not only for your physical health but also mental health.

**CUT DOWN ON LISTENING TO NEWS**
With the news of the pandemic everywhere, it is difficult to filter out reliable news. Do not watch news reports all the time as it may be upsetting and misleading. Seek information from credible sources like the website of Ministry of Health and Family Welfare (mohfw.gov.in). In case of doubt, ask your loved ones.

Take special care of elderly persons in your family. Remind them to practice hand washing as often as possible. Make sure to tell them to cover their mouth and nose with bent elbow, when they cough or sneeze.
Watch out for any symptoms of COVID-19 and reach out for medical help, if necessary. Make sure they eat healthy food and get good sleep.

**IN CASE YOU NEED ANY HELP**
Please contact COVID-19 Psycho social toll free helpline at 080-46110007 or consult your doctor or a mental health professional.