ERA-EDTA sharing Milano experience on coronavirus management in dialysis centers

Author: Professor Mario Cozzolino, MD, PhD,
Renal Unit, San Paolo Hospital and San Carlo Hospital, ASST Santi Paolo e Carlo, Department of Health Sciences, University of Milan, Milan, Italy

While considering that patients on dialysis treatment are undoubtedly more exposed to contracting infectious diseases and to consequently having more severe manifestations than the non-dialysis population, there is NO reason to adopt specific prophylactic measures for the entire dialysis population. Common sense and individual protection rules should always prevail.

General hygienic measures

(1) In patients' waiting rooms, put alcohol dispensers and advise patients to use them.
(2) Hemodialysis (HD) patients should be recommended to wash their hands and fistula arm before starting dialysis and to thoroughly disinfect the puncture areas.
(3) Nursing and medical staff assisting in dialysis rooms should wear surgical masks and protective glasses, wash their hands with soap and water, and systematically use alcoholic solutions.

Please remember that there is no need or benefit to wear masks of any kind to move around the hospital wards, corridors, or avenues of the hospital. Inappropriate use of these devices is a waste of resources which, in case of real and justified necessity, could cause an important deficiency.

Management of HD patients (different scenarios)

Scenario I
HD patients from so-called "active" (red) areas or who had contact with people who have subsequently tested positive:

(1) Absence of manifestations of disease: patients must wear a surgical mask when they arrive at the center until they leave, and during the entire duration of the dialysis session. When sneezing, patients must use disposable handkerchiefs and throw them away after each single use. Rigorous application of disinfectants is also recommended.
(2) Patients who arrive on dialysis with fever or infectious airways: patient must be sent to the emergency unit where he/she will be assessed by the emergency staff and
the infectious disease specialist. If the infectious disease specialist decides to carry out the diagnostic assessment by performing a nasopharyngeal swab, pending the outcome, it will be necessary to decide together with the infectious disease colleague whether or not the patient should already be placed in quarantine. Considering that the average time until the final outcome of the swab is around 48 hours, dialysis cannot be postponed and the patient must therefore be hospitalized and dialysis performed in a room suitable for both absentia and dialysis. If you routinely use mobile dialysis water preparation devices, ask the technical staff to install water loading and unloading connections in one or two rooms in the infectious diseases ward. In this case and until the outcome of the swab is available, the patient should be considered as a potential SARS-CoV-2 carrier and the health professionals will have to wear:
   a) mask FFP2
   b) water repellent gown with long sleeves
   c) eye protection (visor / suitable glasses) gloves

**Scenario II**

If the patient is coronavirus-positive, the patient continues isolation and the operators in contact must wear:
   a. disposable waterproof coat
   b. glasses / visor
   c. FFP3 mask
   d. overshoes
   e. double gloves

In case of respiratory failure, with fever and/or infectious airway manifestations, the patient will be brought to the attention of the resuscitators.

**Management of peritoneal dialysis (PD) patients**

Patients on PD treatment should be managed at home as much as possible. Patients who have one of the conditions described in points 2 or 3, who get their dialysis treatment in a peripheral center that does not have contumacial structures and/or infectious diseases and/or resuscitation or that cannot perform dialysis outside of their ward, must be centralized in hospitals that do meet these requirements and that also have a nephrology unit.