









## Good practices recommendations from the Brazilian Society of Nephrology to Peritoneal Dialysis Services related to the new coronavirus (Covid-19) epidemic

Recomendações de boas práticas da Sociedade Brasileira de Nefrologia aos Serviços de diálise peritoneal em relação à epidemia do novo coronavírus (Covid-19)

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### ABSTRACT

Considering the new coronavirus epidemic (Covid-19), the Brazilian Society of Nephrology, represented by the Peritoneal Steering Committee, in agreement with the and the Dialysis Department, developed a series of recommendations for good clinical practices for peritoneal dialysis (PD) clinics, to be considered during the period of the Covid-19 epidemic. We aim to minimize the disease spread, protecting patients and staff, and ensuring the quality of the treatment provided and adequate follow-up for PD patients. The recommendations suggested at this moment must be adapted to each clinic's reality and the conditions of the structural and human resources, dependent on the adequate financial provision of the public health system for its full implementation.

**Keywords:** Covid-19; Coronavirus infections; Peritoneal dialysis; eHealth Strategies.

### RESUMO

Considerando a nova epidemia de coronavírus (Covid-19), a Sociedade Brasileira de Nefrologia, representada pelo Comitê de Diálise Peritoneal, em concordância com a diretoria e o Departamento de Diálise, desenvolveu uma série de recomendações de boas práticas clínicas para os serviços de diálise peritoneal a serem consideradas durante o período da epidemia de Covid-19, com o objetivo de minimizar a disseminação da doença, proteger pacientes e funcionários e garantir a qualidade do tratamento prestado e acompanhamento adequado para os pacientes em DP. As recomendações aqui sugeridas devem ser adaptadas a cada realidade de serviço e às condições estruturais e de recursos humanos e dependem da provisão financeira adequada do sistema público de saúde para sua plena implementação.

**Palavras-chave:** Covid-19; Infecções por Coronavirus; Diálise Peritoneal; Estratégias de eSaúde.

### INTRODUCTION

The Steering Committee of the Brazilian Society of Nephrology (SBN), together with the Peritoneal Dialysis Committee, prepared recommendations for peritoneal dialysis services concerning coronavirus pandemic. The recommendations contained herein must be adapted to the context and the reality of each service, and depend on adequate funding from public health systems for its complete implementation.

### CONSIDERATIONS

- Considering that peritoneal dialysis (PD) therapy consists of renal

replacement therapy (RRT) modality performed at home, that enables patients to maintain their continuous treatment without having to attend the dialysis unit several times a week, allowing monthly outpatient follow-up to review and adjust treatment when necessary, electively<sup>1</sup>.

- Considering the risks chronic kidney disease patients are exposed to, most of whom have multiple comorbidities, associated with the low immunity that the disease itself causes them, and the recommendations of social isolation to minimize the spread Covid-19,

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established by the Ministry of Health and other agencies<sup>2</sup>.

- Considering the letter issued by the Medicine Federal Board (Official Letter CFM No. 1756/2020), recognizing the possibility and ethics of using telemedicine, in addition to CFM provisions in Resolution No. 1,643, of 26 August 2002, as following: Tele-education: medical professionals can provide remote guidance and referral to patients in isolation; telemonitoring: an act performed under medical advice and supervision for remote monitoring or enforcement of health and/or disease parameters; tele-interconsultation: exclusively exchanging information and opinions between physicians, for diagnostic or therapeutic assistance<sup>3</sup>.
- Considering the guidelines stated in Ordinance No. 467, of 20 March 2020, subsequently published in the Official Gazette by the Ministry of Health, which provides, on an exceptional and temporary basis, telemedicine rules, for regulating and operationalizing the measures to deal with the public healthcare emergency of international importance, provided for in art. 3 of Law No. 13,979, of 6 February 2020, resulting from the Covid-19 epidemic<sup>4</sup>.
- Considering the determination of many states in the country to suspend outpatient care, to minimize the circulation of people and the quickly disease propagation, and since Brazil has entered the epidemiological phase of community transmission of the disease (when the number of cases increases exponentially and the ability to identify the transmitting source is lost), SBN, through its Peritoneal Dialysis Committee and its Steering Committee, drafted the recommendations listed below.

## RECOMMENDATIONS

- The peritoneal dialysis clinics must be structured, as far as possible, to assist their patients in these pandemic times, via telemedicine, within the modalities recognized by the CFM (tele-education, telemonitoring or tele-interconsultation), according to the technical capacity of each clinic, with the rules established by Ordinance No. 467, published in the Official Gazette<sup>3-5</sup>.
- Patient visiting the units should be kept to a minimum number, and restricted to essential cases only, if the patient has any clinical complications, such as peritonitis, infection related to the catheter (tunnel and/or exit site), changes in body volume, or if there are no tools needed to be assisted remotely safely and ethically.
- Peritoneal catheter implants from patients in immediate need to start therapy, as well as repositioning catheters with dysfunction and removed because of infections, are not considered elective procedures; therefore, they must be performed taking all precautions aimed to reducing the risk of Covid-19 transmission.
- Training of patients needing to start dialysis must be prioritized and scheduled at spaced times (which allows the cleaning of the environment between sessions), controlling the number of patients seen per period in the clinic and speeding up all procedures to reduce as much as possible the number of patients in the waiting area, always respecting all Covid-19 prevention measures specified by the Ministry of Health (MS), SBN and World Health Organization (WHO), and continuously screening patients before entering the clinic.
- Non-essential procedures, such as changing transfer set 6", peritoneal equilibrium test (PET) and KT/V, should be avoided during the pandemic, to minimize risks and unnecessary patient exposure.
- We also suggest that the patient wear a cloth mask when he or she eventually has to go out, according to the latest recommendations from the Ministry of Health. SBN does not recommend the use of a cloth mask while performing PD.
- In line with what was recently advised in the recommendations of the International Society of Peritoneal Dialysis (ISPD), the SBN suggests that elective and non-urgent hospital admissions be rescheduled, and surgical and elective hospital procedures postponed<sup>6</sup>.
- Also, if the PD nursing team is involved with hospital care for patients, it is preferable to have separate groups responsible for outpatient and hospital PD care. If this is not possible, we recommend that hospital visits occur at the end of each work shift, so that, after being carried out with the proper hygiene precautions, the healthcare professionals can go directly home.

- Reinforce for patients the instructions concerning the material used in therapy. Home storage and use at home must be maintained according to the local protocol.
- All materials used in each PD session in the clinic or hospital must be cleaned with 70% alcohol before use.
- Disposable of fluid bags, circuits, and all other required PD supplies generate by Covid-19 patients must be done following local regulatory rules.
- For cases of patients who need to be evaluated in person at the unit, the SBN reinforces the need to maintain technical recommendations for good practices, adapted to the context and local reality, and with adequate funding from the public health system, previously published for hemodialysis services compiled and adapted for peritoneal dialysis, as mentioned below<sup>7-11</sup>:
- Patients and employees should be encouraged to avoid public transportation, if possible. When necessary, wear a cloth mask.
- PD units should encourage their patients to vaccinate for influenza, in the absence of contraindications.
- Dialysis units should take administrative procedures to reduce, as far as possible, the number of caregivers and companions.
- Patient companions and employees with respiratory symptoms should be discouraged from attending the PD Unit.
- Rooms should be kept ventilated, as well as the Dialysis Unit.
- Meetings via video conference should be encouraged whenever possible.
- Care for PD patients in face-to-face outpatient consultation: contact the patient and family for a pre-screening before the consultation via telephone, looking for respiratory symptoms (if any, advise the patient and family to not attend the unit); educate them on signs and symptoms of severity and to seek care according to the reference of each municipality if there is a worsening of the condition.

#### GENERAL CARE FOR PRESENTIAL SERVICE

- PD units must educate patients and collaborators on primary preventive care. Emphasize and intensify frequent hand hygiene with 70% alcohol gel or with soap and water for about 20 to 60 seconds. They should also instruct patients and collaborators to avoid touching their eyes, mouth, and nose without having done hand hygiene; avoid close contact with infected individuals; using social etiquette, cover mouth and nose when sneezing or coughing, with a disposable handkerchief and despise it as soon as possible, or use the angle formed by the arm and forearm (elbow); clean and disinfect frequently touched objects and surfaces; avoid sharing personal objects (such as toothbrushes, cutlery, plates, and glasses); and, if infected, avoid contact with other people, choosing to stay at home whenever possible<sup>12,13</sup>.
- We recommend intensifying the cleaning of objects and surfaces frequently used by the public, such as door handles, chair arms, and elevator buttons. Recent evidence suggests that some coronaviruses can remain infectious on inanimate surfaces for up to 9 days. Disinfecting surfaces with 0.1% sodium hypochlorite or 62-71% ethanol significantly reduces coronaviruses' infectivity after 1 minute of exposure<sup>14</sup>.
- If patients with suspicion of the disease arrive at the unit, they must undergo a medical evaluation and receive instructions before entering the dialysis clinic. After evaluation, the patient should be treated under the clinical condition and with the current recommendations of the local health authorities and the Ministry of Health. These patients must not stay in the unit; monitoring can be carried out later by telephone<sup>12</sup>.
- To evaluate the suspected case, the healthcare professional (doctors and nurses) must wear a disposable apron, surgical mask, goggles and/or face shield and disposable gloves.
- Patients with respiratory symptoms and their companions must wear a surgical mask during the evaluation before entering the dialysis unit.
- Other members of the multidisciplinary care team must wear a surgical mask. If the service provides contact that is more direct with the patient, follow the same recommendations as to the second item. We also suggest that the other employees (maintenance, cleaning, receptionists, and security guards) of the dialysis unit

also wear a surgical mask. The surgical mask should be replaced with a new one whenever it becomes wet.

- Healthcare professionals in the dialysis unit, responsible for assisting confirmed or suspected cases, should wear masks (type N95) whenever performing aerosol-generating procedures, such as orotracheal intubation, non-invasive ventilation, cardiopulmonary resuscitation or manual ventilation before intubation.
- If possible, designate a toilet for the exclusive use of the suspected case. If this is not possible, clean the frequently touched surfaces of the bathroom (s) (faucet, handle, trash can cover, counters) with soap and water or disinfectant, according to the procedures described in RDC 56, of 6 August of 2008.

## FINAL REMARKS

The aforementioned measures serve as a source of information and alert to mitigate the virus spread and promote adequate assistance to the population with chronic kidney disease undergoing peritoneal dialysis during the Covid-19 pandemic. These measures can, and should, be revised as the health situation changes<sup>15</sup>.

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