




Covid-19 (Sars-Cov-2 Infection) Information for Patients with Predialytic Chronic Kidney Disease

Informações para pacientes com doença renal crônica pré-dialítica sobre Covid-19 (infecção pelo SARS-CoV-2)

Authors

Vinicius Daher Alvares Delfino¹ 
 Marcelo Mazza do Nascimento² 
 Jose de Rezende Barros Neto³ 

¹Universidade Estadual de Londrina, Londrina, PR, Brasil.

²Universidade Federal do Paraná, Curitiba, PR, Brasil.

³NefroClínicas, Belo Horizonte, MG, Brasil.

ABSTRACT

Patients with Chronic Kidney Disease are among those individuals at increased risk for developing more serious forms of Covid-19. This increased risk starts in the pre-dialysis phase of the disease. Providing useful information for these patients, in language that facilitates the understanding of the disease, can help nephrologists and other healthcare professionals to establish a more effective communication with these patients and help minimize contagion and the risks of serious illness in this population.

Keywords: Chronic Kidney Failure; Pre-dialysis; Covid-19.

RESUMO

Pacientes com Doença Renal Crônica estão entre os indivíduos de risco aumentado para desenvolvimento de formas mais sérias de Covid-19. Esse risco aumentado inicia-se já na fase pré-dialítica da doença. Fornecer informações úteis para esses pacientes, em linguagem que facilite o entendimento da doença, pode ajudar nefrologistas e outros profissionais de saúde a estabelecerem uma comunicação mais efetiva com esses pacientes e ajudar a minimizar o contágio e os riscos de doença grave nessa população.

Palavras-chave: Insuficiência Renal Crônica; Pré-diálise; Infecções por Coronavírus; Covid-19.

Some individuals are more likely to develop a more serious COVID-19 infection. This group includes elderly patients, patients with major chronic diseases such as diabetes mellitus, systemic arterial hypertension, lung disease, heart disease and patients with chronic kidney disease (CKD). For a complete view of risk conditions, we advise the reader to look for them in the reference 1.

Although the impact of COVID-19 infection on patients with CKD has not yet been widely studied, innate and adaptive immunity is reduced in people from stage 3 CKD onwards and is further reduced as the disease progresses.^{1,2}

The following information was written in colloquial language for better understanding of the disease by patients with CKD who are not on dialysis or are not kidney transplanted. They represent a compilation of recommendations from

international nephrology societies, the opinions of experts in the field, and scientific papers on prevention, severity recognition and action plan for the suspected possible Covid-19.¹⁻⁸

- The coronavirus that is causing this pandemic is the SARS-Cov2 and the disease it causes is the Covid-19;
- The vast majority of people with Covid-19 have a mild form of the disease, but the disease can be serious and affect several organs, especially the lungs, and cause serious complications, including, in some cases, death;
- There is still no vaccine available for Covid-19 prevention; therefore, prevention is the main weapon to be used;
- The disease is transmitted mainly by air or by personal contact with contaminated secretions such as

Correspondence to:
 Vinicius Daher Alvares Delfino
 E-mail vddelfino@sercomtel.com.br

DOI: <https://doi.org/10.1590/2175-8239-JBN-2020-S104>



droplets of saliva, sneezing, coughing and phlegm; close personal contact such as touching or shaking hands; contact with contaminated objects or surfaces, followed by contact with the mouth, nose or eyes.

- Therefore, pay attention to some daily precautions: avoid contact with sick people, avoid shaking hands, “kisses” and hugs; keep a distance of at least two meters when talking or in contact with someone (remember that people who are infected with the virus, even if they have no symptoms can transmit the infection to you);
- Wash your hands with soap and water frequently, for at least 20 seconds (remember that you need to wash your fists, between your fingers, and your nails) especially after blowing your nose, coughing, sneezing, entering public places or having touched items such as elevator buttons, door handles, mail, supermarket products or home deliveries;
- If you don't have soap and water at any given time, clean your hands with products that contain at least 60% alcohol (but remember, if you have a choice, wash your hands with soap and water). Strive to dry your hands with paper towels or other disposable paper and throw them in the trash (do not throw in the recyclable trash; this same care must be used in the case of used disposable masks);
- Upon arriving home, always leave your shoes outside the house;
- Clean and disinfect your home regularly to remove germs, especially surfaces frequently used as counters, tables, switches, door handles, sinks, taps, toilets and cell phones;
- Avoid any non-essential travel and avoid congregations (even small meetings);
- Avoid elective surgery. Please note that if your nephrologist has indicated that you should have dialysis access (arteriovenous fistula or peritoneal catheter implant), these surgeries are not elective, but necessary;
- Do not go to Hospitals or other healthcare services, unless you really need to; if you need a medical consultation, see if in the place where you live provide access to teleconsultation or telemedicine, (consultation or guidance via the internet), guidance by phone or WhatsApp;
- Stay at home as long as you can; as much as possible, you need to feel alive and calm: try to keep in touch with other people through social networks, listen to music, read good books, watch TV (stay informed about the disease in your region, but avoid getting flooded by daily information about Covid-19), develop some kind of leisure and if you can, move around frequently; if you really have to go out, use masks that cover your nose and mouth well (cloth masks can be used in these cases);
- Eat well, but reduce the amount of salt in your diet; if your nephrologist or nutritionist has told you that you need to reduce your intake of foods rich in potassium, phosphorus or fluids, follow the guidelines strictly for your safety and to avoid going to healthcare services that will be overwhelmed with the pandemic;
- Do not stop using your usual medications (the ones you should take daily), unless you are instructed to do this by your doctor. If you are using medications that reduce immunity (known as immunosuppressants) for the treatment of kidney diseases or autoimmune diseases, do not stop using these remedies on your own. It is generally recommended to keep taking these medications. You should talk to your doctor about this so that he can explain the risks or the need to withdraw/reduce the dose of the immunosuppressive medications you are using. It is strongly recommended, and your doctor will tell you this, whenever possible, avoid/postpone the use of a medication called Rituximab (anti-CD20) at the present time, as this drug can impair the formation of antibodies (against SARS-Cov-2, for example);
- Establish a plan in case you get sick - stay in touch with others by phone, WhatsApp, email: you may need help from friends, family, neighbors, healthcare workers, etc., if you get sick. In this case, consider a way to get food delivered to your home by your family or food delivery networks;
- Watch out for warning and emergency signs for Covid-19:
 - » Warning signs: fever, cough and “shortness of breath”. In this case, contact your treatment center or the nearest healthcare center by phone to find out what to do in this situation.

- » Emergency signs: difficulty breathing, persistent pain or pressure in the chest (chest), mental confusion or purplish lips or face. If you are feeling unwell, even if there are no signs of emergency, you should contact/seek healthcare quickly! Stay tuned for reference hospitals for Covid-19 that are recommended by the healthcare authorities of your city or region.

REFERENCES

1. Schnake-Mahl AS, Carty MG, Sierra G, Ajayl T. Identifying Patients with Increased Risk of Severe Covid-19 Complications: Building an Actionable Rules-Based Model for Care Teams. *NEJM Catalyst Innovations in Care Delivery* 2020. DOI: 10.1056/CAT.20.0116, <https://catalyst.nejm.org>.
2. Kurts, C, Panzer U, Hans-Joachim Anders H-J, Andrew J. Rees AJ. The immune system and kidney disease: basic concepts and clinical implications. *Nature Rev. Immunol.* 2013;13:738-753.
3. Li J, Shuang-Xi Li S-X, Zhao L-F, Kong D-L, Guo Z-Y. Management recommendations for patients with chronic kidney disease during the novel coronavirus disease 2019 (COVID-19) epidemic, *Chronic Dis Transl Med.* 2020 May 13;6(2):119–23. doi: 10.1016/j.cdtm.2020.05.001.
4. Armsby C et al. Patient education: Coronavirus disease 2019 (COVID-19) overview (The Basics). Martin KA ed. UpToDate. Waltham, MA: UpToDate Inc. <https://www.uptodate.com> (Acessado em 25 de maio de 2020.)
5. European Renal Association-European Dialysis and Transplant Association (ERA-EDTA). Covid-19, the novel coronavirus- News and information for the ERA-EDTA community and patients. <https://www.era-edta.org/en/covid-19-news-and-information/#toggle-id-3> (accessado em 25 de março de 2020).
6. National Kidney Foundation (NKF). Be Prepared: kidney Patient Prep for Coronavirus. <https://www.kidney.org/content/be-prepared-kidney-patient-prep-coronavirus> (accessado em 25 de março de 2020).
7. Kidney Care UK. Coronavirus (Covid-19) guidance for patients with kidney disease: the latest news and information about Covid-19 for kidney patients. <https://www.kidneycareuk.org/news-and-campaigns/coronavirus-advice/> (accessado em 25 de março de 2020).
8. Naicker S, Yang CW, Hwang SJ, Liu B-C, Chen J-H, Jha V. The Novel Coronavirus 2019 epidemic and kidneys. *Kidney Int.* 2020;97(5):824-828. doi:10.1016/j.kint.2020.03.001.