

## **COVID-19, the Novel Corona Virus - News and Advice for the ERA-EDTA Community and kidney patients.**

What it is important to keep in mind is that to be helpful to our patients we have first to protect ourselves. Then we have to use masks, gloves, and other personal protective equipment with discipline, wash hands often. Another important point is to decontaminate surfaces of all those devices commonly (including stethoscope, cellular phones, computer peripherals and so on).

So far, the overall mortality rate of COVID-19 based on published reports remains in the range of 2.3-2.7% [1]. However, morbidity and mortality increase significantly with age, rising to 8.0% among patients 70-79 and 14.8% in patients over 80 [1].

Moreover, published case reports from the Chinese Centers for Disease Control indicate patients with underlying comorbid conditions have an increased risk for contracting COVID-19 and a worse prognosis; depending on the report, between 25% and 50% of COVID-19 patients present with underlying conditions [2-3]. Although, to our knowledge, there are not specific reports for patients with CKD, we can hypothesized that being CKD patients almost always hypertensive, diabetic and affected by Cardio-vascular disease, they have at least the same death rate of the category of patients with Cancer (5.6%), Hypertension (6.0%), Chronic respiratory disease (6.3%), Diabetes (7.3%), and Cardiovascular disease (10.5%) [1]. It is reasonable to advise all CKD patients cardiovascular patients of the potential increased risk and to encourage additional, reasonable precautions in accordance Center for Disease Control (CDC). It is important for patients with CKD, like those with CVD, to remain current with vaccinations, including the pneumococcal vaccine given the increased risk of secondary bacterial infection with COVID-19; CVD patients should be vaccinated against influenza in accordance with current ACC/AHA guidelines.

In geographies with active COVID-19 outbreaks, it may be reasonable to substitute telephonic or telehealth visits for in-person routine visits for stable CVD patients to avoid possible nosocomial COVID-19 infection; planning for emergency telehealth protocols should begin now.

Another recommendation that comes from the American College of Cardiology is possibly to triage COVID-19 patients according to underlying cardiovascular, diabetic, respiratory, renal, oncological, or other comorbid conditions for prioritized treatment.

Recent reports on kidney involvement in COVID 19 have shown higher frequency of renal abnormalities such as proteinuria and hematuria. BUN was elevated in 27% overall and two thirds of patients who died. The prevalence of elevated creatinine and BUN were 15.5% and 14.1% respectively [4]. AKI was an independent risk factor for patients' in-hospital mortality [4-5]. The exact mechanism of kidney involvement is unclear: postulated mechanisms include sepsis leading to cytokine storm syndrome or direct cellular injury due to the virus. Recently, Zhong's lab in Guangzhou has successfully isolated SARS-CoV-2 from the urine sample of an infected patient, suggesting the kidney could be target of this novel coronavirus19.

The current treatment of COVID-19 with AKI includes general and supportive management, and kidney replacement therapy. There is no effective anti-viral therapy available at present but there are some promising occasional reports about a drug used in rheumatoid patients such as the tocilizumab.

## References

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