BACKGROUND AND AIMS: The SARS-CoV-2 acute respiratory distress syndrome, which is the source of the infection known as coronavirus disease (COVID-19), spread rapidly, causing a pandemic that not only severely affected human health but also restricted the activities of daily living and weakens the global economy. Organs other than the lungs can be affected, including the kidneys. The incidence of acute kidney injury (AKI) in hospitalized patients with COVID-19 disease has been reported to range from 0.5% to 80%; thus, a better understanding of the pathophysiology of AKI during COVID-19 is crucial to manage and improve the survival of patients. AKI during COVID-19 is a common complication of severe cases and is further associated with high mortality; and there is glomerular involvement associated with COVID-19, characterized in some cases by collapsing glomerulopathy or by tubular necrosis in other cases. The objectives of our study are to determine the incidence and describe the risk factors as well as the evolution of AKI in patients admitted for pulmonary infection with COVID-19 in intensive care unit.

METHOD:
- This is a retrospective and descriptive study, spanning a period from March 2020 to December 2020.
- In this study, we collected all patients hospitalized in intensive care unit for a COVID-19 infection who have developed an AKI in the different regions of the Kingdom of Morocco:
  - Northern region (Tangier)
  - Central region (Fez)
  - Southern region (Marrakech)
  - North East region (Rabat-Salé)
  - South East region (Grand Casablanca)
- Western region (Oujda).
- Inclusion criteria: All patients hospitalized in intensive care for COVID-19 infection and having developed an AKI (creatinine increase of 25% compared with baseline creatinine).
- Exclusion criteria: patients known ESKD before admission.

RESULTS: Our study included 4261 patients hospitalized in intensive care in the different cities of Morocco; among them, 1495 (1/3) presented an AKI or 35.09%, the average age of our patients was 68.5 years or (25–99), with a male predominance or a sex ratio of 3 men to a woman.
- The clinical characteristics in patients hospitalized in intensive care having presented an AKI on COVID-19.
- There is hypertension in 80% of cases, diabetes in 75% of cases, the association of hypertension and diabetes in 63% of cases, coronary heart disease in 10%, epilepsy in 1% and lymphoma in 0.5% of cases.
- The biological characteristics of these patients: We found hypernatremia with an average of 145 mmol/L, an elevated CRP with an average of 199.25, an average of creatinine at 69.9 mg/L and an average of urea at 1.8 g/L.
- Incidence and severity of AKI:
  - In our study, which included 4261 patients, a third of them developed an AKI, i.e. 1495 patients.
  - In addition, the time between admission and diagnosis of AKI is 4 days, i.e. a median time between (2 and 15), while the time between diagnosis of AKI and dialysis is 3.8 days or (1–15).
- The median peak of plasma creatinine in non-dialysis patients is 29 mg/L, i.e. (15–67), while the median peak of plasma creatinine in patients requiring dialysis is 69 mg/L, i.e. (15–175).
- Mortality:
  - The outcome was fatal in all patients requiring extra renal treatment, with 100% mortality.

CONCLUSION: AKI is a complication that appears to be common in patients with severe SARS-CoV-2 infection, associated with a poor prognosis. Nephroprotection measures should be put in place to prevent the occurrence of AKI. Any patient hospitalized with SARS-CoV-2 should undergo an initial nephrologic evaluation, including proteinuria and urine sediment examination.