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DiaSys Parameters in COVID-19 Monitoring

Role of Creatinine in COVID-19

In a healthy individual, plasma concentration of creatinine is quite constant. Therefore increasing plasma creatinine values can indicate decreased excretion i.e. impaired kidney function. For estimation of the glomerular filtration rate (GFR), creatinine is measured simultaneously in serum and urine (collected over a defined period), and creatinine clearance is calculated. This allows better detection of kidney diseases and monitoring of renal function. (1)

The IFFC Guide on COVID-19 strongly suggests monitoring creatinine in patients with COVID-19 for early identification of kidney injury. (2) The development of acute kidney injury (AKI) and its relation to mortality is also reported for previous coronaviruses of severe acute respiratory syndrome (SARS) and Middle East respiratory syndrome (MERS). (3,4)

A study on 701 patients found increased serum creatinine and reduced GFR in 14.4% and 13.1%, respectively. During the study, about 5% of patients developed AKI. Kidney disease and AKI are related to increased mortality in COVID-19. (3)

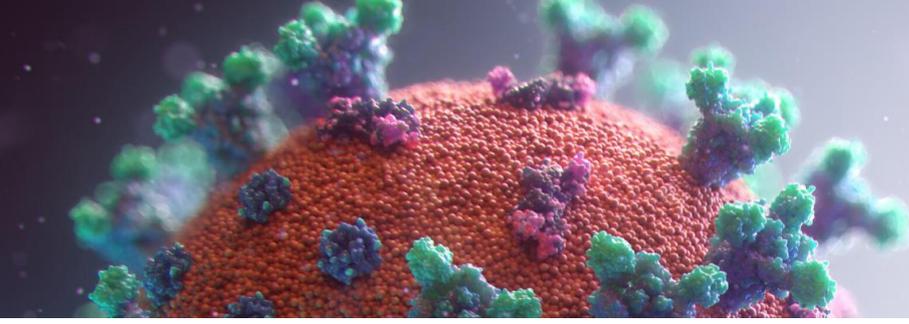
Renal histopathological findings in 26 patients revealed acute tubular injuries and different impairments of the glomeruli, (5) as well as tubular necrosis and glomerulosclerosis. (6) Many of the cases showed increased serum creatinine, proteinuria, or both as clinical signs of kidney injury. (5,6)

Over 40% of admitted patients with COVID-19 show signs of abnormal kidney function. (3,7) The recently published study from Italy focusing on the management of AKI in COVID-19 estimates AKI in 20-40% of critically ill patients admitted to the ICU. (7)

For information on DiaSys Creatinine assays, please refer to [Creatinine PAP FS](#) for enzymatic creatinine assay or to [Creatinine FS](#) for measurements, according to Jaffe. For further details on DiaSys assays in general, please have a look at our website: <https://www.diasys-diagnostics.com/>.

With continuous information about "Laboratory Diagnostics in COVID-19", we want to support you in marketing DiaSys products in times of pandemic. For all information we published on this topic, please refer to our newly created BLOG: <https://www.diasys-diagnostics.com/blog/>.

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CUSTOMER INFORMATION

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