



PRESS RELEASE

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MODEL PREDICTS LIKELIHOOD OF ACUTE KIDNEY INJURY REQUIRING DIALYSIS IN PATIENTS WITH COVID-19

Highlights

- In a recent study, a new algorithm achieved good performance for predicting which hospitalized patients will develop acute kidney injury requiring dialysis.
- Results from the study will be presented online during ASN Kidney Week 2020 Reimagined October 19–October 25.

Washington, DC (October 24, 2020) — A new artificial intelligence–based algorithm may help clinicians predict which patients with COVID-19 face a high risk of developing acute kidney injury (AKI) requiring dialysis. The research will be presented online during ASN Kidney Week 2020 Reimagined October 19–October 25.

Preliminary reports indicate that acute AKI is common in patients with COVID-19. Using data from more than 3,000 hospitalized patients with COVID-19, investigators at the Icahn School of Medicine at Mount Sinai trained a model based on machine learning, a type of artificial intelligence, to predict AKI that requires dialysis. Only information gathered within the first 48 hours of admission was included, so predictions could be made when patients were admitted.

The model demonstrated high accuracy (AUC of 0.79), and features that were important for prediction included blood levels of creatinine and potassium, age, and vital signs of heart rate and oxygen saturation.

“A machine learning model using admission features had good performance for prediction of dialysis need. Models like this are potentially useful for resource allocation and planning during future COVID-19 surges,” said co-author Lili Chan, MD, MS. “We are in the process of deploying this model into our healthcare systems to help clinicians better care for their patients.”

Study: “Machine Learning for Prediction of Severe Acute Kidney Injury in Hospitalized Patients with COVID-19”

ASN Kidney Week 2020 Reimagined, the largest nephrology meeting of its kind, will provide a forum for more than 13,000 professionals to discuss the latest findings in

kidney health research and engage in educational sessions related to advances in the care of patients with kidney and related disorders. Kidney Week 2020 Reimagined will take place October 19–October 25.

Since 1966, ASN has been leading the fight to prevent, treat, and cure kidney diseases throughout the world by educating health professionals and scientists, advancing research and innovation, communicating new knowledge, and advocating for the highest quality care for patients. ASN has more than 21,000 members representing 131 countries. For more information, visit www.asn-online.org.

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