Rule combo accurately predicts organ failure in pancreatitis

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(HealthDay) -- A series of 12 predictive rules that combines existing scoring systems in patients with acute pancreatitis improves the accuracy of predicting persistent organ failure, according to a study published in the June issue of *Gastroenterology*.

Rawad Mounzer, M.D., from the University of Pittsburgh, and colleagues compared the accuracy of scoring systems created to predict which patients with pancreatitis will develop persistent organ failure (cardiovascular, pulmonary, and/or renal failure lasting 48 hours or more). Data were collected from a training cohort (256 patients) and a validation cohort (397 patients). On admission and 48 hours later, nine clinical scores were calculated. Twelve predictive rules which combined these scores were developed.

The researchers found that, in the training and validation cohorts, existing scoring systems showed modest accuracy (area under the curve [AUC] training cohort, 0.62 to 0.84; AUC validation cohort, 0.57 to 0.74), with the Glasgow score the best classifier at admission. In each set of patients, serum levels of creatinine and blood urea nitrogen provided similar levels of discrimination. In both cohorts, use of the 12 predictive rules increased accuracy (AUC training cohort, 0.92; AUC validation cohort, 0.84).

"The existing scoring systems seem to have reached their maximal efficacy in predicting persistent organ failure in acute pancreatitis," the authors write. "Sophisticated combinations of predictive rules are more accurate but cumbersome to use, and therefore of limited clinical use."

More information: Abstract
Full Text (subscription or payment may be required)

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