

# Predicting Death in Canine Acute Pancreatitis

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## In the Literature

Fabrès V, Dossin O, Reif C, et al. Development and validation of a novel clinical scoring system for short-term prediction of death in dogs with acute pancreatitis. *J Vet Intern Med.* 2019;33(2):499-507.

## FROM THE PAGE ...

Acute pancreatitis is a common disease in dogs. Severity can range from mild pancreatitis with GI signs to necrotizing pancreatitis that leads to multiorgan failure and death. Early detection of pancreatitis has improved with recently developed diagnostic tests,<sup>1</sup> but these tests are imperfect. In humans, early recognition of the more severe forms of pancreatitis are critical to improving patient outcome, and multiple scoring systems are used.<sup>2</sup>

This multicenter, retrospective cohort study sought to develop a scoring system based on independent predictors of short-term death (ie, within 30 days) in dogs that had acute pancreatitis ( $n = 138$ ) and to validate the scoring system in an external population of dogs that had acute pancreatitis ( $n = 31$ ). In the cohort of 138 dogs, the case fatality rate 30 days after admission was 33%.

Independent risk factors for short-term death identified in this study included presence of systemic inflammatory response syndrome, coagulation disorders, increased creatinine, and ionized hypocalcemia. Using these risk factors, the authors proposed 2 scoring systems: the Canine Acute Pancreatitis Severity scoring system and a simplified version of this system that could be used for a faster calculation.

## ... TO YOUR PATIENTS

Key pearls to put into practice:

- 1** Secondary causes of acute pancreatitis (eg, foreign body obstruction, neoplasia) should be ruled out via imaging prior to considering primary pancreatitis, as early intervention can impact outcome.
- 2** Acute kidney injury evidenced by a rising creatinine value—even if still in the normal range—has been identified as a negative prognostic indicator for many severe illnesses; creatinine should be closely monitored in acute pancreatitis patients.
- 3** Frequent re-evaluation of dogs with acute pancreatitis is critical for early recognition of risk factors so that treatment may be altered to improve outcome and provide realistic prognoses.

## References

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2. Mansfield C. Pathophysiology of acute pancreatitis: potential application from experimental models and human medicine to dogs. *J Vet Intern Med.* 2012;26(4):875-887.