Prehospital Hemodynamic Improvement in Patients Treated for Suspected Sepsis
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INTRODUCTION
Sepsis is a medical condition associated with high morbidity and mortality if not recognized and treated quickly[1, 2]. Over one-third of patients treated for sepsis in the emergency department are brought in by EMS[3]. Studies have shown early recognition and treatment of septic patients shortens time to initiation of intravenous fluids[4] and antibiotics[4, 5]. While this is encouraging, survey data shows paramedic knowledge and awareness of sepsis is widely variable[6]. Due to this variation in knowledge, prehospital sepsis may be missed if there is not a robust prehospital sepsis protocol in place.

Objective: To evaluate the effectiveness of University of Missouri Health Care’s protocol on the management of prehospital sepsis.

METHODS
• Retrospective identification of patients transported by University of Missouri Health Care EMS for presumed sepsis from 06/01/2017 to 07/31/2018.
• Patients were screened for sepsis according to Boone County EMS Sepsis Pathway (Figure 1).
• Patients transported to University of Missouri Hospital were included.
• Patients with suspected sepsis, a complete set of EMS and ED vitals, and prehospital sepsis labs (serum lactate, aerobic/anaerobic cultures) were included for final data evaluation.
• Final sample size n=45 patients.

RESULTS
• Implementation of a robust prehospital sepsis protocol lead to hemodynamic improvement in patients with suspected sepsis.
• The significant improvement in vital signs suggests prehospital management temporized sepsis pathophysiology until definitive care was reached.
• Prehospital providers improved aspects of downstream care by establishing IV access, drawing labs, obtaining blood cultures, and activating a sepsis alert at the receiving hospital.

REFERENCES