To improve the care of patients with sepsis within our 73-bed emergency department (ED), a “first-dose” intravenous push (IVP) cephalosporin antibiotic protocol was initiated” McLaughlin et al (2017).

Abstract:

Delays in administration of appropriate antibiotics to patients with septic shock are associated with increased mortality. To improve the care of patients with sepsis within our 73-bed emergency department (ED), a “first-dose” intravenous push (IVP) cephalosporin antibiotic protocol was initiated.

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This project was aimed at improving the time from provider order of antibiotic to administration, which follows the Sepsis Core Measure of timely antibiotic administration. This was a single-center, retrospective analysis of a practice improvement study. Time from provider order of an IV cephalosporin antibiotic to administration was compared between postprotocol dates of March to May 2016 (n = 1110) and preprotocol dates of November 2015 to January 2016 (n = 1146). The cost of supplies for IVP was compared with traditional infusion. Prior to implementation of the IVP protocol, ED nursing staff completed a survey of
administration preferences and then received one-on-one instruction about the protocol from the clinical nurse specialist and clinical nurse educator. In addition, a tip sheet was developed and IVP kits complete with all needed supplies were made available in the automated medication dispensing system. Median time from IV cephalosporin antibiotic order to administration significantly decreased by 8, 12, 14, and 13 min for ceftriaxone, ceftazidime, cefepime, and cefazolin, respectively (p < 0.007 for all). This was true for all indications of antibiotic use. Nursing staff favored IVP administration over traditional IV infusion (87%). Supply cost to administer IVP antibiotics was $0.83 compared with $9.53 for traditional IV infusion. A “first-dose IVP” protocol decreased time to administration by eliminating the need for procurement of an infusion pump, setup, and documentation of a secondary infusion. It was also preferred by ED nursing staff and associated with cost savings.

Reference:


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Thank you to our partners for supporting IVTEAM