

SEPSIS BULLETIN 21 November 2017

[Prolonged versus short-term intravenous infusion of antipseudomonal \$\beta\$ -lactams for patients with sepsis: a systematic review and meta-analysis of randomised trials.](#)

Vardakas KZ.

The Lancet Infectious Diseases

2017;(October):10.1016/S1473-3099(17)30615-1.

Prolonged infusion of antipseudomonal β -lactams for the treatment of patients with sepsis was associated with significantly lower mortality than short-term infusion. Further studies in specific subgroups of patients according to age, sepsis severity, degree of renal dysfunction, and immunocompetence are warranted.

[The role of increased body mass index in outcomes of sepsis: a systematic review and meta-analysis](#)

Wang S, Liu X, Chen Q, Liu C, Huang C, Fang X.
BMC Anesthesiol. 2017;17(1):118.

In sepsis cases, overweight, but not obesity or morbid obesity, was associated with lower mortality. Further prospective studies are needed to clarify this relationship

[Impact of transfusion on patients with sepsis admitted in intensive care unit: a systematic review and meta-analysis](#)

Dupuis C. et al.

Annals of Intensive Care; Dec 2017; vol. 7 (no. 1)

Red blood cell transfusion (RBCT) threshold in patients with sepsis remains a matter of controversy. RBCT was not associated with increased mortality rate, but was associated with increased in occurrence of NI, ALI and AKI.

Nevertheless, the data on RBCT in patients with sepsis are sparse and the high heterogeneity

[Does Early and Appropriate Antibiotic Administration Improve Mortality in Emergency Department Patients with Severe Sepsis or Septic Shock?](#)

Sherwin R.; Winters M.E.; Vilke G.M.; Wardi G.

Journal of Emergency Medicine; Oct 2017; vol. 53 (no. 4); p. 588-595

Patients with severe sepsis and septic shock should receive early and appropriate antibiotics in the emergency department. Patients with septic shock who received appropriate antimicrobial therapy within 1 h of recognition had the greatest benefit in mortality.

[The epidemiology of sepsis in Brazilian intensive care units](#)

Machado, Flavia R. et al

The Lancet Infectious Diseases, Volume 17, Issue 11, November 2017, Pages 1180-1189

The incidence, prevalence, and mortality of ICU-treated sepsis is high in Brazil.

Outcome varies considerably, and is associated with access to adequate resources and treatment. Results show the burden of sepsis in resource-limited settings, highlighting the need to establish programmes aiming for sepsis prevention, early diagnosis, and adequate treatment.

[Impact of an electronic sepsis initiative on antibiotic use and health care facility-onset Clostridium difficile infection rates.](#)

Hiensch, Robert et al.

between studies prevents from drawing any definitive conclusions

[Identification of Extremely Premature Infants at Low Risk for Early-Onset Sepsis.](#)

Puopolo KM et al.

Pediatrics; Nov 2017; vol. 140 (no. 5)

Premature infants are at high risk of early-onset sepsis (EOS) relative to term infants, and most are administered empirical antibiotics after birth. Aimed to determine if factors evident at birth could be used to identify premature infants at lower risk of EOS. Found that delivery characteristics of extremely preterm infants can be used to identify those with significantly lower incidence of EOS. Recognition of differential risk may help guide decisions to limit early antibiotic use among approximately one-third of these infants.

[Association of Gender With Outcome and Host Response in Critically Ill Sepsis Patients](#)

van Vught, L et al

Critical Care Medicine. 45(11):1854–1862, NOV 2017

Objective was to determine the association of gender with the presentation, outcome, and host response in critically ill patients with sepsis. Showed that the host response and outcome in male and female sepsis patients requiring ICU admission are largely similar.

[Evaluation of lactate, white blood cell count, neutrophil count, procalcitonin and immature granulocyte count as biomarkers for sepsis in emergency department patients](#)

Karon, B.S. et al

Clin Biochem. 2017 Nov;50(16-17):956-958

Lactate, white blood cell (WBC) and neutrophil count, procalcitonin and immature granulocyte (IG) count were compared for the prediction of sepsis in patients presenting to the emergency department (ED). Found that traditional biomarkers have limited utility in the prediction of sepsis.

Source American Journal of Infection Control; Oct 2017; vol. 45 (no. 10); p. 1091-1100

The implementation of an electronic sepsis screening and treatment protocol coincided with increased broad-spectrum antibiotic use and HCFO CDIs. Because these protocols are increasingly used, further study of their unintended consequences is warranted.

[Late-onset sepsis due to urinary tract infection in very preterm neonates is not uncommon.](#)

Mohseny AB et al.

European journal of pediatrics; Oct 2017

Urinary tract infection (UTI) is a common cause of sepsis in infants. Premature infants hospitalized at a neonatal intensive care unit often have risk factors for infection. Aimed to identify the risk of UTI in premature infants with central lines, suspected of late-onset sepsis. Conclude that in premature infants with central lines, urine analysis should be performed routinely when signs of infection occur beyond 72 h after birth.

[Comparison of QSOFA score and SIRS criteria as screening mechanisms for emergency department sepsis](#)

Haydar, S. et al

American Journal of Emergency Medicine. Vol 35, Iss 11, Nov 2017, Pages 1730-1733

The Quick Sequential [Sepsis-related] Organ Failure Assessment (qSOFA) score has been shown to accurately predict mortality in septic patients and is part of recently proposed diagnostic criteria for sepsis. Seeks to ascertain the sensitive of the score in diagnosing sepsis, as well as the diagnostic timeliness of the score when compared to traditional systemic inflammatory response syndrome (SIRS) criteria in a population of emergency department (ED) patients treated in the ED, admitted, and subsequently discharged with a diagnosis of sepsis.

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