



Effective Health Care

Management of Sepsis

Next Steps

The nominator, Sharp HealthCare, is interested in a new evidence review on the management of sepsis. They intend to use the results of an AHRQ evidence review to guide the work of their sepsis mortality committees to shape clinical practice and lower sepsis mortality rates.

The topic brief on a similar nomination was sufficiently detailed for the needs of the nominator. The scope of the nomination not addressed by the previous topic brief was withdrawn from consideration. No further activity will be undertaken by the EHC program.

1. Veazie S, Relevo R, Paynter R, McKenna R, Helfand M. Screening and Management of Sepsis. March 2017. Effective Health Care Program. Available from: <https://effectivehealthcare.ahrq.gov/sites/default/files/pdf/TND-0911-170412.pdf>

Topic Summary and Considerations

Topic Name and Number: 0754 Management of Sepsis

Topic Summary Date: 12/28/2017

Key Questions from Nomination:

1. In adults with severe sepsis or septic shock, what is the effect of complete 3- or 6-hour resuscitation bundle compliance on clinical outcomes?
2. In adults with sepsis, severe sepsis, or septic shock, what is the effect of 30 ml/kg fluid resuscitation (either balanced or unbalanced crystalloids) compared to less fluid on clinical outcomes?
3. What is the effectiveness of management strategies for adults discharged after sepsis and adults with post-sepsis syndrome?

According to the Third International Consensus Definition for Sepsis and Septic Shock (Sepsis-3), sepsis is a life-threatening medical condition caused by a dysregulated host response to infection.² Overall, sepsis accounts for 37% to 56% of inpatient deaths.³ Recent guidance (2017) by the Surviving Sepsis Campaign⁴ recommends 3 and 6-hour resuscitation bundles for patients with sepsis, which include administering 30 ml/kg fluid resuscitation within 3 hours. There is debate as to whether these resuscitation bundles lead to improvement in patient outcomes compared to other treatment strategies, and whether using 30 ml/kg of fluid in resuscitation is necessary. There is also debate as to the best strategies for caring for survivors of sepsis after they are discharged from in-patient settings; 50% of patients who survive sepsis will go on to develop post-sepsis syndrome, which includes symptoms such as insomnia, disabling muscle and joint pains, extreme fatigue, and decreased mental functioning.⁵

In March 2017, the Effective Health Care (EHC) program published a topic brief titled “Screening and Management of Sepsis”,¹ documenting its work up of a nomination from the American College of Physicians. Due to limited program resources, the program was unable to develop a review at that time.

After sharing the topic brief with the nominator, the nominator stated that the information in the March 2017 topic brief was sufficient for their needs. They withdrew the remaining part of their nomination not covered by the March 2017 (post-sepsis syndrome) topic brief from consideration.

References

1. Veazie S, Relevo R, Paynter R, McKenna R, Helfand M. Screening and Management of Sepsis. March 2017. Effective Health Care Program. Available from: <https://effectivehealthcare.ahrq.gov/sites/default/files/pdf/TND-0911-170412.pdf>
2. Singer M, Deutschman CS, Seymour C, et al. The third international consensus definitions for sepsis and septic shock (sepsis-3). *JAMA*. 2016;315(8):801-810.
3. Liu V, Escobar GJ, Greene JD, et al. Hospital deaths in patients with sepsis from 2 independent cohorts. *JAMA*. 2014;312(1):90-92.
4. Rhodes A, Evans LE, Alhazzani W, et al. Surviving Sepsis Campaign: International Guidelines for Management of Sepsis and Septic Shock: 2016. *Intensive care medicine*. 2017;43(3):304-377.
Sepsis Alliance. Post-Sepsis Syndrome- PSS. 2017. Available from: <http://www.sepsis.org/life-after-sepsis/post-sepsis-syndrome/>. Accessed Dec 29, 2017.
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