



Surviving Sepsis Campaign Responds to Sepsis-3

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In response to the European Society of Intensive Care Medicine's and the Society of Critical Care Medicine's Third International Consensus Definitions for Sepsis and Septic Shock (Sepsis-3),¹⁻³ the Surviving Sepsis Campaign (SSC) offers clarification on the implications of the new definition statements and guidance for hospitals and practitioners. Many organizations, including regulatory agencies and hospitals, are focused on sepsis quality improvement programs. The following advice is meant to put the recent publication of the consensus definitions in context to facilitate the continued successes of sepsis screening, early identification and treatment that have been the hallmark of SSC's quality improvement efforts associated with improved survival during the preceding decade.^{4,5}

Implications of the New Definitions for Screening and Management

For hospitals who have prepared for the transition, screening for early identification and treatment of patients with *sepsis* (formerly called *severe sepsis*) should continue essentially as has been previously recommended by SSC.

Step 1: Screening and Management of Infection

The appropriate first step in screening should be identification of infection. Hospitals should continue to use signs and symptoms of infection to promote the early identification of patients with suspected or confirmed infection.

In those patients identified as having infection, management should begin by obtaining blood and other cultures as indicated, administering tailored antibiotics as appropriate, and simultaneously obtaining laboratory results to evaluate the patient for infection-related organ dysfunction.

Step 2: Screening for Organ Dysfunction and Management of *Sepsis* (formerly called *Severe Sepsis*)

Patients with *sepsis* (formerly called *severe sepsis*) should still be identified by the same organ dysfunction criteria (including lactate level greater than 2 mmol/L). Organ dysfunction may also be identified in the future using the quick Sepsis-Related Organ Failure Assessment (qSOFA) (see "Quick SOFA Clarification for the Practitioner" section below). Importantly, evidence of two out of three qSOFA elements (altered mental status, respiratory rate greater than or equal to 22 breaths/min and systolic blood pressure less than or equal to 100 mm Hg) in patients who have screened positive for infection may be used as a secondary screen to identify patients at risk for clinical deterioration. These three qSOFA elements were determined through analysis of a data-driven model to predict deterioration. Practitioners should strongly consider closer monitoring of these at-risk patients.

If organ dysfunction is identified, ensuring that the three-hour bundle elements have been initiated continues to be a priority. For instance, patients with organ dysfunction require blood cultures if only non-blood cultures had previously been obtained and administration of broad-spectrum antibiotics if only narrow-spectrum antibiotics had previously been administered.

Step 3: Identification and Management of Initial Hypotension

In those patients who have infection and hypotension or a lactate level greater than or equal to 4 mmol/L, providing 30 mL/kg crystalloid with reassessment of volume responsiveness or tissue perfusion should be implemented. The six-hour elements of care should be completed. For the six-hour bundle, repeat lactate level is also recommended if initial lactate level was greater than 2 mmol/L.

Quick SOFA Clarification for the Practitioner

Sepsis-3 introduces qSOFA as a tool for identifying patients at risk of sepsis with a higher risk of hospital death or prolonged intensive care unit (ICU) stay both inside and outside critical care units.

Note that:

- qSOFA *does not* define sepsis (but the presence of two qSOFA criteria is a predictor of both increased mortality and ICU stays of more than three days in non-ICU patients)
- The new sepsis definitions recommend using a change in baseline of *the total SOFA score* of two or more points to represent organ dysfunction.

Prepare for Change

As always, hospitals should prepare for major changes that can alter fiscal considerations. Hospitals should develop detailed plans and educate their physician and nursing staff and their coding departments to ensure that their coders accurately capture the sense of the new definitions. In countries that have formally defined national sepsis measures, such as the United Kingdom and the United States, hospitals should also create detailed plans and educate quality department staff to abstract charts and translate the new nomenclature into language compatible with the national quality measure, which typically uses the older terminology.

Conclusion

Once hospitals have adequately prepared for change, sepsis team leaders should reinforce the message that the new definitions do not change the primary focus of early sepsis identification and initiation of timely treatment in the management of this vulnerable patient population.

Resources related to the new definitions are available at www.sccm.org/sepsisredefined.

This statement was prepared by the members of the Surviving Sepsis Campaign Executive Committee:

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References

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