We read the interesting article by Shah et al. [1], who found that a sepsis screening tool implemented in an academic emergency department (ED) could increase the proportion of patients receiving timely antimicrobial therapy and demonstrated a trend towards decreased mortality. Though the study sounds scientific, we still have some concerns and different views after reading the article.

To begin with, Shah et al. claimed they designed the study for the sake of evaluating the sepsis screening tool implemented in their ED to determine its impact on the patients with sepsis. However, according to the flow chart of the study [1], only patients with severe sepsis and septic shock were included, those patients with severe sepsis were excluded, did the sepsis screening tool identify those patients with severe sepsis and septic shock more effectively than with sepsis or they just aim to target those patients with severe sepsis and septic shock? If so, it would be better to rephrase that their targeted population were patients with severe sepsis and septic shock rather than patients with sepsis in the title and context of the article and give reasons for doing so.

Besides, Shah et al. aimed to assess the efficacy of an ED sepsis screening tool, nevertheless, as a screening tool, the sensitivity, specificity, positive/negative predictive value, positive/negative likelihood ratio, the best cut-off, and receiver operating characteristic curve are fundamental for evaluating the accuracy, reliability and practicability of the screening tool. Therefore, we suggest the authors had better provide the readers with these characters of their screening tool.

Furthermore, the 3-hour bundle of 2012 version of Surviving Sepsis Campaign International Guideline was comprised of 4 vital elements—lactate measurement, obtaining blood cultures before administration of antibiotics, broad spectrum antibiotics administration, and application of 30 mL/kg crystalloid for hypotension or lactate ≥ 4 mmol/L [2]. According to Table 2 in the commented paper, after the screening tool had been modified and implemented, the compliance of the former three elements had been varied from 80.7% to 100%, while the compliance of the last one was just 41.9%, suggesting the main bottleneck of 3-hour bundle was adequate fluid resuscitation. In 2018, an updated version of bundles – 1-hour bundle – had been put forward by the task force of Surviving Sepsis Campaign as the result of new accumulated evidence. As per the new bundle [3], lactate measurement was still recommended and should be remeasured when the initial lactate value is >2 mmol/L and the other 3 vital elements were retained, in addition, a new element of applying vasopressors if patient is hypotensive during or after fluid resuscitation to maintain mean arterial pressure (MAP) ≥ 65 mm Hg was added to the old 3-hour bundle to form the new 5-element bundle, and the new bundle required all the 5 elements should be accomplished within 1 h due to sepsis was a medical emergency. Thus the future studies are required to evaluate the implementation of screening tools in EDs not only based on the new sepsis-3 definitions but also the new bundle of 1-hour bundle.

**Abbreviations**

ED emergency department

MAP mean arterial pressure

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**References**

