



LEARNING LOUNGE EXCLUSIVE:

Inside The Research: Studying Adherence to Sepsis Care Bundles Alongside the UK Sepsis Trust



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bioMérieux recently collaborated with the UK Sepsis Trust (UKST) to publish a report in *BMJ Open Quality* on the state of sepsis management across the United Kingdom, France, Spain, Sweden, Denmark, and Norway.¹ A survey was distributed to assess providers' familiarity with, and ability to adhere to, the Severe Sepsis and Septic Shock Management Bundle (SEP-1) – a set of evidence-based clinical practices that outline interventions recommended for the first hour of sepsis treatment. The survey responses indicated that some of the most common barriers to timely sepsis treatment and management included issues with lab capacity, availability of rapid testing, and communication of test results.

SEP-1 provides guidelines for frontline healthcare professionals and focuses on timely sepsis recognition and early intervention. When treating sepsis, this emphasis on time is critically important. Each hour of delay before a septic patient receives treatment is associated with a 4% to 9% increased risk of mortality.^{2,3}

Gauging Awareness for AMR, Sepsis, and IVD

In 2021, bioMérieux and UKST worked together for the first time alongside a market research organization to conduct a survey among select European populations to gauge awareness regarding antimicrobial resistance (AMR), sepsis, and *in vitro* diagnostics (IVD).⁴ After the success of this initial collaboration, both organizations decided to launch a second survey to better understand how well European clinicians followed the SEP-1 guidelines. The survey targeted emergency department (ED) physicians, general surgeons, internists, critical care clinicians, and pulmonologists.



The recent survey results showed that providers reported a strong overall awareness of sepsis as a condition and understood the importance of early diagnosis and treatment. However, the data indicates a gap between that knowledge and the practical application of best practices.

More than half of the doctors surveyed admitted that some cases of sepsis went unnoticed in their hospitals. They noted high patient caseloads, staff shortages, insufficient training, and a lack of familiarity with SEP-1 steps as major causes of this issue. Nearly 60% of those surveyed cited lab capacity and workload issues as their biggest obstacles to improving sepsis management. Additionally, 30% of providers surveyed mentioned they were not receiving laboratory results quickly enough to meet SEP-1 criteria.

Addressing the Challenges

Implementing novel, rapid syndromic testing for blood cultures could deliver results within an hour and help minimize the amount of additional work performed by laboratory technicians. Again, this is critically valuable considering that the life expectancy of a sepsis patient decreases by approximately 7% each hour.^{2,3}

“Diagnostic tests are vital for anyone suspected of sepsis — providing critical information on its presence and severity, the type and extent of infection at the source, how best to manage the patient, and also to monitor their progress. Tests like blood cultures, other appropriate cultures, lactate, and procalcitonin (PCT) can give essential information for guiding optimal patient care in suspected and proven sepsis.”



— Mark Miller, MD
*Executive Vice President
and Chief Medical Officer,
bioMérieux*

bioMérieux helps address these challenges with fast and accurate blood culture systems, PCT testing, and automated lab solutions that reduce the amount of hands-on time needed per sample and expedite turnaround times (TAT) for results to reach clinicians quicker. Additionally, bioMérieux’s team of laboratory consultancy experts helps support healthcare professionals and hospital managers in improving the efficiency of their processes in order to fully optimize their use of rapid diagnostic tools.

bioMérieux and the UKST intend to leverage the data collected in the survey by sharing it with European policymakers and public health administrations. While the acceptance of SEP-1 guidelines represents a positive development, more work needs to be done to realize the full clinical adoption of this bundle across healthcare institutions globally.

References

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- ³ Liu VX, Fielding-Singh V, Greene JD, et al. The Timing of Early Antibiotics and Hospital Mortality in Sepsis. *Am J Respir Crit Care Med* 2017;196(7):856-863. <https://doi.org/10.1164/rccm.201609-1848oc>
- ⁴ Press Release: A survey in 5 European countries about sepsis demonstrates the lack of awareness and an expectation for faster diagnostic capabilities. <https://www.biomerieux.com/corp/en/journalists/press-releases/survey-5-european-countries-about-sepsis-demonstrates-lack-awareness-and-expectation-faster.html>



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