

Significant Barriers Hinder Sepsis Management in Spanish Hospitals



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[Ferrer R, González Del Castillo J, Martínez-Martínez M, Plata-Menchaca EP, Larrosa MN. Time to decision in sepsis. Rev Esp Quimioter. 2022;ferrer04nov2022. doi:10.37201/req/083.2022](#)

Results of the first multidisciplinary survey in Spain to evaluate the processes for the identification and initial management of sepsis reveal substantial barriers to appropriate sepsis management.

This **cross-sectional study** aimed to identify the common barriers leading to delayed initial management, microbiological diagnosis, and appropriate empirical antimicrobial treatment in sepsis. The study applied a **population-based survey** that targeted the healthcare professionals (HCPs) located in (i) the ED, (ii) the infectious diseases and clinical microbiology-microbiological diagnosis area, (iii) the ICU and infectious diseases area, and (iv) the infectious diseases and clinical microbiology-clinical diagnosis area. The surveys collected data on clinical suspicion of sepsis, microbiological diagnosis, empirical antimicrobial treatment, targeted treatment, and treatment withdrawal.

- A total of 75% of specialists mainly used qSOFA as a screening tool.
- Procalcitonin was the most frequently used biomarker (39.8%).
- Only 66.2% of participating hospitals implemented the sepsis code and only 30.2% of sepsis code activations involved a management bundle (e.g., obtaining cultures, initiation of appropriate empirical antimicrobials, hemodynamic resuscitation, and seeking ICU consultation).
- Only 37.6% of the hospitals prioritized blood culture samples of sepsis code patients due to the lack of a specific protocol for handling samples or lack of communication between the HCPs activating the sepsis code and the microbiology laboratory.
- Only 18.3% of laboratories performed rapid antimicrobial susceptibility testing recommended by the European Committee on Antimicrobial Susceptibility Testing (EUCAST).
- Positive blood cultures were available within 72 hours in 78.7% of hospitals and effectively communicated to the treating physician by phone or email in 81.7% cases.
- 88.4% of all participating hospitals had general laboratory services running 24 hours a day, seven days a week. However, only 45.8% have a microbiology laboratory available 24 hours, seven days a week. This causes significant delays in the notification of blood culture results since the availability of microbiology laboratories 24 hours a day is not widely extended.
- Treatment escalation occurred mainly due to clinical deterioration.
- Recording of quality indicators that evaluate and optimize AMS processes was limited in most participating hospitals.



"The limited use of rapid identification techniques for microbiological diagnosis, barriers to the prompt administration of appropriate antimicrobials, and differences in antimicrobial stewardship among specialties are significant," the authors concluded.