

BD DAYS – Sepsis:

Panel - Drivers and barriers of effective sepsis management

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Moderator Ms Fiona Garín, Senior Director, BD Strategic Marketing Europe

Assoc Prof Eduardo Palencia Herrejón, Coordinator, Code Sepsis, Infanta Leonor Hospital, Madrid, Spain

Dr Mike Weinbren, Consultant Medical Microbiologist, King's Mill Hospital, Sherwood Forest

Hospitals NHS Foundation Trust, Sutton-in-Ashfield, United Kingdom

Assoc Prof Adam Linder, Senior Consultant, Lund University Hospital, Sweden



Identifying drivers and barriers

Ms Garín opened the discussion by asking the three members of the panel to share their thoughts on drivers and barriers. From a microbiological perspective, Dr Weinbren pointed out the biological variability of blood cultures and the unpredictability of results. Delays are another barrier and according to some studies, it is uncertain whether rapid test results have an impact on clinical outcomes in patients with suspected sepsis.

For Prof Linder, the heterogeneity of sepsis is a barrier. It is not just one disease, but many. When patients seek medical attention, they are at different inflammatory phases. He thinks that precision medicine is the way to go. Another barrier occurs when sepsis cases are found in different wards across the hospital (*e.g., surgery, obstetrics, neurology*) and this may lead to delayed diagnoses.

Prof Palencia Herrejón is part of a multidisciplinary team driving change in his hospital. They identified several needs: the same sepsis protocol for all hospital wards, new electronic tools for the early detection of sepsis, regular meetings by this multidisciplinary team to review sepsis cases and a common approach to sepsis and antimicrobial stewardship.

Raising awareness among healthcare professionals

According to Prof Palencia Herrejón, there is a lack of sepsis awareness among healthcare professionals (HCPs) in Spain, but different scientific societies developed a sepsis course to remedy this. For Dr Weinbren, multidisciplinary teams (*i.e., sepsis and antimicrobial stewardship*) are needed. Microbiology can provide these teams with data on turnaround times and blood volume. It is important to give lectures and bring different disciplines together according to Prof Linder. Sepsis alerts help prioritise laboratory testing for patients suspected of having this condition.

Leveraging antimicrobial stewardship for sepsis

Sepsis and antimicrobial resistance are intertwined and diagnostic stewardship is a wonderful opportunity to manage both of them according to Dr Weinbren. Broad-spectrum antibiotics are almost always prescribed to treat sepsis, but they are not always needed according to Prof Palencia Herrejón. The widespread use of these kinds of antibiotics may lead to increased antimicrobial resistance. According to Prof Linder, we need antibiotic stewardship in order to preserve the antibiotics we have. Preliminary laboratory results may help reduce the need for broad-spectrum antibiotics.

Measuring sepsis outcomes

When Prof Palencia Herrejón collaborated on a Spanish consensus document for sepsis, the group was deliberately vague with their general recommendations because they felt it should be up to each hospital to decide how best to implement them. He also mentioned the importance of having the sepsis team monitor patients' vital signs. In Sweden, International Statistical Classification of Diseases and Related Health Problems (ICD) coding is a real challenge because sepsis is not always coded correctly. Prof Linder thinks that an algorithm based on data from electronic health records could improve this situation.

Looking to the future

Prof Linder is optimistic about the future of sepsis management but feels that we have a lot of technology that is not being used. Lessons learned in cancer treatment could be applied to sepsis management. Prof Palencia Herrejón thinks we need better tools to diagnosis sepsis earlier. For Dr Weinbren, blood culture is the gold standard, but we are not using it to its full potential. This panel discussion was an opportunity to hear from three experts from three different countries and share perspectives and practices.

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