SCCM Project Aims to Decrease Sepsis Deaths in Low-Resource Settings

Funding from Laerdal Foundation supports first two phases of research and resource development.

- The SCCM project, Reducing Mortality From Sepsis in Low-Resource Settings, seeks to reduce deaths from sepsis in low-resource settings.
- Funding from Laerdal Foundation will support the project through September 2025
- Sepsis kills about 11 million people globally every year, 84% of whom live in low- and middle-income countries that have few resources.
- Multifaceted initiative will assess and help address limited healthcare resources in sepsis care.

PHOENIX – Aspiring to reduce deaths from sepsis in countries with few healthcare resources, a project launched by the Society of Critical Care Medicine (SCCM) under the auspices of the Surviving Sepsis Campaign was unveiled today at the 2024 Critical Care Congress. The project, Reducing Mortality From Sepsis in Low-Resource Settings, received funding for the first two phases of the seven-year, four-phase project.

Sepsis, a life-threatening response to an existing infection, kills about 11 million of the 50 million people worldwide who are affected—more than cancer or heart disease. About 85% of sepsis cases and 84% of sepsis deaths occur in low- and middle-income countries with few resources, such as antibiotics and equipment, and a lack of adequate training for healthcare professionals to recognize and apply treatments.

SCCM received approximately $705,000 from the Laerdal Foundation to fund phases 1 and 2 of the project, which will be co-led by Jorge Hidalgo, MD, MACP, FCCP, MCCM, head of the intensive care unit at Belize Healthcare Partners and president of the World Federation of Intensive and Critical Care; and Samuel Akech, MBChB, MMED, PhD, director of CDC Western Kenya for the U.S. Centers for Disease Control and Prevention in Kenya.

Phase 1 will involve conducting a needs assessment survey of clinicians in low-resource settings, summarizing the evidence base, identifying gaps in knowledge, and publishing finding using consensus-driven methodology. Phase 2 will involve creating implementation toolkits and resources with mechanisms to capture the impact of implementation. Phase 2 will be completed in September 2025. SCCM is pursuing funding for Phases 3 and 4, which will focus on implementing, disseminating, and assessing impact in 20 global regions.
“Early identification and effective treatment are vital to effectively managing sepsis,” said Dr. Hidalgo. “That is a challenge in low-resource settings due to the limited training, access to healthcare resources, infrastructure, therapies, and tools. The initiative aims to address these significant gaps and access to essential resources, which requires a multifaceted, multiprofessional approach.”

Filling these critical gaps requires:

- Early recognition and diagnosis: Sepsis often goes undiagnosed or is diagnosed late in low-resource settings where there is a lack of training to recognize sepsis, access to diagnostic tools, and healthcare facilities.
- Access to antibiotics: Providing appropriate antibiotics as soon as possible is crucial for treating sepsis. In low-resource settings, access to antibiotics is often limited or delayed.
- Appropriate fluid resuscitation: Timely and appropriate fluid therapy is a cornerstone of sepsis management. Sufficient fluids and training to monitor and titrate the fluids may not be available in low-resource settings.
- Monitoring and supportive care: Low-resource settings may not have the right training, equipment, or staffing to continuously monitor patients’ responses to therapies, including vital signs, laboratory parameters, and organ function.
- Infection control: Inadequate infection control measures at healthcare facilities can lead to sepsis outbreaks.
- Healthcare workforce: Low-resource settings often have a shortage of healthcare professionals, including physicians, nurses, respiratory therapists, and laboratory technicians.
- Patient education: Patients and their families often do not seek care as soon as they should because they are unfamiliar with the symptoms of sepsis.
- Infrastructure and resources: Low-resource settings typically have limited access to emergency and critical care, appropriate communication and transport between facilities, and ventilators and other equipment.
- Data and research: Robust data are lacking on sepsis incidence, interventions, process of care, outcomes, and best practices in low-resource settings.
- Health system strengthening: This includes improving healthcare infrastructure, training healthcare workers, and ensuring the availability of essential medications and equipment.

Solving these issues will require a multifaceted approach involving government and healthcare system reforms, international partnerships, increased access to essential resources, and improved healthcare education and awareness in communities.

The Surviving Sepsis Campaign (SSC) was established in 2002 as an international initiative of SCCM and the European Society of Intensive Care Medicine (ESICM). The SSC has published four revisions of evidence-based guidelines based on published data analyzed from 30,000 patient charts from around the world but lacks significant data from low-resource settings. A 2009 survey of 185 African hospitals found that fewer than 1.5% had implemented the guidelines.

“SCCM is launching this project through the SSC, whose guidelines have been shown to reduce deaths from sepsis in adults and children and improve overall outcomes, but are better aligned to places with more resources, such as the United States and Europe,” said Vinay Nadkarni,
MD, MS, FCCM, immediate past president of SCCM. “SCCM is committed to improving sepsis care and saving lives worldwide, without walls, no matter the level of resources. This initiative aims to do just that. Ultimately, the SSC guidelines will be expanded and updated to reflect the findings and recommendations discovered by this initiative.”

THE SOCIETY OF CRITICAL CARE MEDICINE
The Society of Critical Care Medicine (SCCM) is the largest nonprofit medical organization dedicated to promoting excellence and consistency in the practice of critical care. With members in more than 80 countries, SCCM is the only organization that represents all professional components of the critical care team. SCCM’s Critical Care Congress brings together intensivists and critical care experts from around the world to share the latest scientific research, develop solutions to common issues, and improve the care of critically ill and injured patients. For more information on SCCM, visit sccm.org or follow SCCM on LinkedIn, Facebook, X (formerly Twitter), and YouTube.

The Laerdal Foundation was established to provide financial support to practically oriented research projects that can help prevent needless deaths from sudden cardiac arrest and trauma and during birth. The foundation particularly prioritizes applications in the focus areas defined in its strategy, that are considered to have a high potential to improve patient outcomes.

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