

We are inviting you, as a health professional involved in sepsis management, to participate in a research study aimed at improving sepsis diagnosis and management using an innovative artificial intelligence-clinical decision support system (AI-CDSS). Sepsis is a critical and life-threatening condition that requires timely and accurate diagnosis to manage effectively. This study aims to utilize advanced machine learning algorithms integrated into the AI-CDSS to analyze blood test data (complete blood count with differential, or CBC + DIFF) and provide rapid risk assessments for sepsis. By participating, you will be contributing to research that strives to enhance clinical decision-making, improve patient outcomes, and reduce sepsis-related mortality and complications.

Why have I been invited?

You have been invited because you are a licensed health professional with at least one year of clinical experience in managing sepsis. You are among a selected group of health professionals from Tri-Service General Hospital and its affiliated centers who are participating in this study.

Do I have to take part?

No. Participation in this study is completely voluntary. You may choose not to participate, or you can withdraw from the study at any time without giving a reason. Your decision will not affect your current or future relationships with Tri-Service General Hospital.

What will happen if I take part?

Upon agreeing to participate, you will be randomly assigned to one of two groups. One group will use the AI-CDSS to aid in sepsis management decisions, while the control group will continue with standard management practices. The AI-CDSS uses machine learning algorithms to analyze blood test data (complete blood count with differential, or CBC + DIFF) to quickly assess the risk of sepsis. Both groups will be monitored and analyzed on days 7, 14, and after the patient is discharged to evaluate the impact of the diagnostic approach on clinical decision-making and patient outcomes. This will include measuring patient recovery rates, incidence of complications such as septic shock, and overall mortality rates. The study aims to determine if the use of AI-CDSS reduces mortality rates among sepsis patients and lowers the rate of progression to septic shock and other complications, such as acute respiratory distress syndrome (ARDS), acute kidney injury (AKI), and multiple organ dysfunction syndrome (MODS).

Are there any expenses or payment involved?

No, there are no payments involved for participating in this study. However, any expenses incurred due to participation will be reimbursed.

Confidentiality

All the information you provide during this study will be kept strictly confidential. Your data will be anonymized and stored securely. Only the research team will have access to the data.

Study Location

This study is being conducted at Tri-Service General Hospital, and the results may significantly influence future sepsis management practices. Your participation will contribute to our understanding of how AI tools can assist in clinical decision-making and potentially lead to better patient outcomes and reduced sepsis mortality.

Interested?

If you are interested in participating or have any questions, please contact the study coordinator using the details provided below.

Thank you for considering this opportunity to contribute to important research in sepsis management practices.

Contact Details:

Name: Dr. Hung-Sheng Shang

Email: iamkeith@mail.ndmctsgh.edu.tw

Phone: +886 920713130

Address: No. 325, Sec. 2, Chenggong Rd., Neihu Dist., Taipei City, Taiwan, 114202