PERSOWN and SAS empower decisions that save lives

Teaming up to tackle the global burden of sepsis with predictive analytics

Getting ahead of one of the world's deadliest medical conditions

Sepsis kills 11 million people each year, more than all forms of cancer combined. It is a medical emergency caused by the body's toxic response to an infection. Early detection is critical to prevent the worst health outcomes.

For healthcare organizations, it is exceedingly difficult to predict which patients are most at risk from sepsis. That's because testing protocols and diagnostic products vary widely in their effectiveness – and hospitals are rarely able to remotely monitor patients post-discharge for early signs of latent infections, risking severe medical complications and costly readmissions.

Impact of sepsis

11 million
annual deaths
globally

$62 billion
estimated annual
cost of care in U.S.

While an abundance of sepsis data exist that could inform detection algorithms, these data sets are highly fragmented. This, along with changing IT systems and a wide variety of non-normalized variables and analytical models, has failed to provide a common framework to determine which diagnostics are working best as early predictors and how to accurately predict which patients are currently most at risk.

A proactive solution for early detection

At PERSOWN, we're bringing order to the chaos of sepsis data. We're developing a near-real-time information exchange infrastructure that empowers clinicians, healthcare organizations, governments and researchers to make informed decisions for better sepsis management.

The Sepsis Monitoring and Alerting System for Hospitals and Home (SMASH-H) uses the AI-driven big data analytics platform from SAS, the recognized leader in analytics, with the PERSOWN diagnostic and monitoring device ecosystem to deliver sepsis-focused reporting suitable for hospital, point-of-care or at-home use.

SMASH-H can retrieve or receive rapid diagnostics and patient data every 10 minutes or less from hospital IT systems and Remote Patient Monitoring systems worldwide. Quickly normalizing the data and processing against several SAS predictive analytical models, we will then deliver results to healthcare IT vendors to feed monitoring, decisioning and alerting systems that provide the best possible timely information to healthcare providers and financial officers, lowering costs while improving outcomes.

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How SAS analytics make a difference

Through our close partnership with SAS, the trusted global leader in analytics, governments and health organizations gain near-real-time access to powerful artificial intelligence and early insights that can help them impact the sepsis crisis.

1. Gathering billions of integrated data points across various disease states and multiple monitoring devices through PERSOWN ecosystem

2. Using powerful SAS artificial intelligence, visual analytics and data management software to uncover infection trends and visualize disease patterns to better monitor and predict onset

3. Delivering the information that healthcare providers need to make more informed decisions

Improving sepsis care across the continuum

The smarter predictive tools of SMASH-H will benefit:

Clinicians
Access near-real-time feedback through predictive analytics allowing for faster, more informed personalized treatment

Hospitals and researchers
Access data and refined algorithms to identify the most accurate rapid point-of-care diagnostic tools

Public and private health organizations
Track patient conditions under an open analytical cloud framework to improve patient outcomes

Looking to the future

PERSOWN's mission is to make accurate, low-cost point-of-care diagnostic testing and secure patient data available instantly to everyone across the globe in order to improve and save lives.

Tackling the sepsis crisis is too large an effort for any one organization. It takes cross-collaboration among institutions to make a difference in infection management and sepsis care. And while we begin our journey with sepsis, the point-of-care molecular diagnostics and health dataset we create now will power new solutions in additional disease states – from cardiology to cancer – as well as accelerate clinical trials and diagnostics approval.

Join PERSOWN as an integration partner to advance innovative solutions that can save lives.
To learn more, visit sas.com/en_us/partners.html.

POWER OF THE PARTNER

At SAS, we love bold questions. And when we combine our analytics leadership with the innovative technology and expertise of our partners, we help our customers turn data into answers. That's the kind of curiosity that moves the world forward. That's the **Power of the Partner**.