MEDIA RELEASE



Release Date: Monday 24th October 2022

MEDICOTEC. OUR MISSION IS TO SAVE LIVES.

8,702 Australians die from sepsis-related conditions each year, that's 23 a Day! WHY IS THIS NOT HEADLINE NEWS!

MEDICOTEC is an Australian MedTech startup who are developing state-of-the-art technology systems to help doctors diagnose and manage serious health conditions. MEDICOTEC have developed an Artificial Intelligence (AI) Clinical Decision Support system with the aim of identifying patients at risk of sepsis, whether they are in hospital, at home or at a remote clinic. The technology is now ready for clinical validation, so MEDICOTEC are organising clinical trials and studies in hospitals around the world across a variety of medical specialties. The first study has been confirmed in Mumbai, India in December 2022.

Sepsis is a potentially life-threatening condition that occurs when the body's response to an infection damages its own tissue. When the infection-fighting process turns on the body, they cause organs to function poorly and abnormally.

- 48.9 million cases globally
- 11 million deaths annually
- 1 in every 5 deaths worldwide are associated with sepsis
- 85% occur in low to middle income countries
- 2 out of every 5 cases are in children under 5
- For Indigenous Australians, sepsis rates are 4X that of Non-Indigenous adults and 7.7X that of Non-Indigenous children.

Prevention and early recognition of sepsis are of paramount importance as each hour's delay in antibiotic administration results in an increased 7.6% risk of death. To date, there is no reliable early diagnostic test to identify sepsis. This is a global problem and Australia's MEDICOTEC is leading the way.

MEDICOTEC have partnered with Bai Jerbai Wadia Hospital for Children in India for the first international feasibility study of their AI Algorithm to predict the onset of sepsis in a paediatric hospital. A teaching hospital of world-wide repute, this 300 bed hospital is propelled by a highly accomplished team of over 60 paediatrics specialists devoting themselves to the care of over 100,000 children on an outpatient basis, and approximately 10,000 children as inpatients, annually. Located in the heart of Mumbai, The Bai Jerbai Wadia Hospital for Children pledges to extend its services to all people, regardless of their socio-economic status.

Joe Ward, CEO, MEDICOTEC – "MEDICOTEC are proud to have partnered with Bai Jerbai Wadia Hospital for Children to help us with our mission to make lifesaving medical technology available to everyone around the world."

Sepsis in children is a significant cause of morbidity and mortality worldwide, over half of the global reported incidence of sepsis relates to the neonatal and paediatric population. World Health Organization statistics have shown that 80% of deaths in children <4 years can be classified as sepsis-related deaths. 26.4% of paediatric intensive care unit (PICU) deaths in Australia and New Zealand were related to severe infections such as sepsis and septic shock. The mortality rate of sepsis in children from paediatric intensive care units of developing countries is higher than 50%. It is estimated that up to one third of children who survive sepsis are left with significant morbidity including amputations, cognitive impairment and other, sometimes life-long conditions which will affect their quality of life.

Dr Minnie Bodhanwala, CEO, Bai Jerbai Wadia Hospital for Children – "We at Bai Jerbai Wadia Hospital for Children, Mumbai, are happy to collaborate with the Medicotec team for the study to develop an algorithm that can predict the occurrence of sepsis in children. Sepsis in our subcontinent is rampant and spreads more rapidly in neonates & young infants, thereby increasing their morbidity and mortality significantly. If proven to be effective, this algorithm could enable our doctors to diagnose sepsis early-on and start appropriate therapy at an optimal time in the admitted patients. These patients are mainly from the underprivileged economic strata of the society. Early diagnosis could additionally help decrease wastage of precious resources like medicines (inotropes, antibiotics), decrease ICU transfers and prevent development of antibiotic resistance (which is a major issue these days). This algorithm could also help decrease the financial burden of the parents of these sick children substantially as most of them are still devoid of insurance and pay out-of-pocket. We are eagerly awaiting the study and the AI system to be incorporated in our institution, as we house one of the largest NICU facilities in the country."

Media Enquires; Peter Attard 0448 782 133 media@medicotec.ai https://www.medicotec.ai/

References:

WHO https://www.who.int/news-room/fact-sheets/detail/sepsis

Rudd et al https://www.thelancet.com/article/S0140-6736(19)32989-7/fulltext

Davis et al https://www.mja.com.au/journal/2011/194/10/sepsis-tropical-top-end-australias-northern-territory-disease-burden-and-impact

Ostrowski et al https://www.mja.com.au/journal/2017/206/2/burden-invasive-infections-critically-ill-indigenous-children-australia

Martinez et al https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7139065/

CDC https://www.cdc.gov/sepsis/pdfs/sepsis-surveillance-toolkit-mar-2018_508.pdf

Santiago et al

https://journals.lww.com/pccmjournal/Citation/2013/03000/Epidemiologic_Challenges_in_Sepsis_to_the.20.aspx Schlapback et al https://pubmed.ncbi.nlm.nih.gov/25471555/

Kaur et al https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4118509/

Li et al https://www.safetyandquality.gov.au/sites/default/files/2020-05/epidemiology_of_sepsis_-february_2020_002.pdf