



Pediatric Sepsis

Sepsis is a common and serious condition associated with shock, multiple organ failure, and death. Early recognition and treatment of sepsis saves lives. USCOM 1A enables early, non-invasive and reliable access to advanced hemodynamics in children, and is quick and easy to operate for widespread implementation.

Clinical Background

- Early recognition of sepsis and rapid and accurate intervention improves outcomes for infants and children.²
- Pediatric intensivists frequently treat patients as “warm shock” or “cold shock” on the basis of clinical examination, although clinical assessment of hemodynamics has been shown to be unreliable.³
- Early sepsis treatment is cost effective, saving lives, and reducing hospital and Critical Care bed days for patients.¹

“When multiple pathophysiologic derangements co-exist in patients with severe sepsis, such as myocardial dysfunction co-existing with ARDS and a vasoplegic state, decision-making can be exceedingly difficult. Wrong decisions are poorly tolerated. USCOM 1A is unmatched for measures of SVV, CI, SMII and SVR, thus permitting precise fine-tuning of fluid and vasoactive agents for hemodynamic optimisation”

Suchitra Ranjit, MD, FCCM, Head, Pediatric Intensive Care and Emergency Services, Apollo Children’s Hospital, Chennai, India

Uscom Solution and Evidence

- USCOM 1A’s accurate data distinguishes distinct hemodynamic patterns of shock.⁴
- USCOM 1A’s totally non-invasive and portable hemodynamic monitor allows an earlier and more rational approach to the management of septic shock in children.⁴
- USCOM 1A’s normalization of SVI and SVRI reduces mortality in fluid refractory septic shock children.⁵
- USCOM 1A’s monitoring of hemodynamics, without expensive disposables, helps fine tune cardiovascular therapies in septic shock.⁵
- USCOM 1A’s easy to use Doppler technology is practical and reproducible in PICU.⁴

“The ability to get a device on a child who has actually just come into hospital, maybe showing early signs of septicaemia, and get accurate data has to be a major advantage to us.”

Dr Joe Brierley, Consultant Intensivist, Great Ormond Street Hospital for Sick Children, London, UK

The Measure of Life

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