Uscom – Devices the experts use





## **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.<sup>2</sup>
- 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.<sup>3</sup>
- Early sepsis treatment is cost effective, saving lives, and reducing hospital and Critical Care bed days for patients.<sup>1</sup>

"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 finetuning 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.<sup>4</sup>
- 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.<sup>4</sup>
- USCOM 1A's normalization of SVI and SVRI reduces mortality in fluid refractory septic shock children.<sup>5</sup>
- USCOM 1A's monitoring of hemodynamics, without expensive disposables, helps fine tune cardiovascular therapies in septic shock.<sup>5</sup>
- USCOM 1A's easy to use Doppler technology is practical and reproducible in PICU.<sup>4</sup>

#### "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

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# The Measure of Life

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