# THE FUTURE OF HEMODYNAMICS

Uscom


## USCOM 1A

Advanced Hemodynamics
Non-invasive Doppler Monitor

## THE FLUID SOLUTION

Appropriate fluid balance and SV resuscitation improves patient outcomes, while inadequate or excess fluid increases morbidity and mortality. This is “the fluid dilemma” - when to start and when to stop. The USCOM 1A personalized SV optimization strategy reliably identifies fluid responsiveness. Unlike other technologies, USCOM 1A works in patients with cardiac arrhythmias, high and low CO’s, those on vasoactives, those on ventilation or free breathing, those with sepsis, and in children.

## SEPSIS

Sepsis is a medical emergency and is characterized by complex and deranged circulation which may lead to circulatory failure and death. Early identification of hemodynamic changes, and informed intervention with fluid, inotropes and vasoactive therapies is crucial to limit shock, organ failure and improve outcomes.

## SAVING LIVES & REDUCING COST

The USCOM 1A Doppler ultrasound monitor is saving lives worldwide by improving our understanding of the circulation. While patients benefit from improved clinical care, hospital budgets benefit from the absence of costly disposables and shorter lengths of stay.

> *“The technique allows for rapid rationalization of fluid and inotrope support at the bedside.”*

**Prof Christopher J. L. Newth, MD**
Professor of Pediatrics,
Children’s Hospital Los Angeles, USA

**The USCOM 1A non-invasive hemodynamic monitor, the safest and most accurate solution**

# *The measure of life.*

## HYPERTENSION

Accurate measurement of CO and SVR is essential to the effective treatment of hypertension, heart failure and pre-eclampsia. The USCOM 1A provides rapid, accurate and non-invasive measures of these values and is changing the way we treat hypertension.

> *"It's part of the initial shock evaluation and monitored regularly thereafter.... USCOM 1A has now been established as the standard of care."*

**Dr Akash Deep**
Director of Pediatric ICU,
King's College Hospital, London, UK

## ADVANCED DOPPLER MONITORING

The USCOM 1A accurately, sensitively and directly measures SV or 'flow at the valve'. The device is safe and non-invasive, with innovative features that simplify operation. The USCOM 1A has a short learning curve with excellent inter and intra-operator reproducibility.

For Neonates, Children and Adults

- CW Doppler Ultrasound
- Real Time Stroke Volume
- FlowTracer Automated Tracking
- Multiple Beat Averaging
- USCOM Flow Area Algorithm
- Smith-Madigan Inotropy Index
- MAP, Hb and $SpO_2$ Input
- Advanced Parametric Trend Graphs
- Configurable Reports
- Disposable Free


*"I will not attempt to manage a seriously ill patient now without knowing the Stroke Volume Index, Cardiac Index, Smith-Madigan Inotropy Index, Potential Kinetic Ratio and Systemic Vascular Resistance."*

**Dr Howard Wakeling**
Anesthesia and Intensive Care
Western Sussex Hospitals NHS Foundation Trust, Worthing Hospital, UK

## ADVANCED HEMODYNAMIC PARAMETERS

**Includes:**

| | |
|---|---|
| **SV** ($cm^3$) | Stroke Volume |
| **SVI** ($ml/m^2$) | Stroke Volume Index |
| **SVV** (%) | Stroke Volume Variation |
| **FTc** (ms) | Flow Time Corrected |
| **CO** (l/min) | Cardiac Output |
| **CI** ($l/min/m^2$) | Cardiac Index |
| **HR** (bpm) | Heart Rate |
| **SMII** ($W/m^2$) | Smith Madigan Inotropy Index |
| **CPO** (W) | Cardiac Power |
| **SVR** ($d.s.cm^{-5}$) | Systemic Vascular Resistance |
| **SVRI** ($d.s.cm^{-5}m^2$) | Systemic Vascular Resistance Index |

**OXYCOM** (optional)

| | |
|---|---|
| **$DO_2$** (ml/min) | Oxygen Delivery |

## FEATURES

- Touch screen operation
- Durable ergonomic transducer
- Exportable patient database
- Rechargeable battery
- Portable


## Uscom – devices the experts use

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