WHEN TO CONSIDER NEW INOTROPES AND VASOACTIVE AGENT IN PEDIATRIC SEPTIC SHOCK

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Case

- 10 year old boy, known acute leukemia
- Septic shock

- Lethargic, airway maintainable
- BP 85/40, HR 120/min, RR 24/min
  After total 60 ml/kg bolus
- Warm extremity with bounding pulse
- Urine 0.2 ml/kg in 30 min

Outline

- Stabilization: Beyond the first hour
  - Cardiovascular support

- New inotropes and vasoactive agent
  - Non-catecholamines group
    - Milrinone
    - Levosimendan
    - Vasopressin/Terlipressin

Goal of treatment

- **The first hour of resuscitation**
  - **Capillary refill of < 2 sec**
  - **Normal pulses with no differential between peripheral and central pulses, warm extremities**
  - **Urine output > 1 ml/kg/hr**
  - **Normal mental status**
- **Stabilization: Beyond the first hour**
  - **Superior vena cava oxygen saturation ($ScvO_2$) ≥ 70%**
  - **Cardiac index (CI) 3.3-6.0 l/min/m^2**

WHY USE MIXED VENOUS SPO_2 OR CENTRAL VENOUS SPO_2 TO DETERMINE CARDIAC OUTPUT (CO) ?