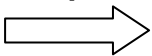


# Surviving Sepsis – Managing the first 24 hours

## Recognition and Resuscitation

These actions should occur as soon as possible and simultaneously.

- **Recognise Severe Sepsis or Septic Shock**
- see cultures over page 
- **Measure Serum lactate** at diagnosis
- **Resuscitation** – see below
- **Appropriate Cultures and Antibiotics given within 1 hour of diagnosis** - see over page

## INITIAL RESUSCITATION - ABC as normal

### SEVERE SEPSIS

- Temperature > 38°C or < 36°C
- Heart rate > 90 beats/min
- RR > 20 breaths/min.
- WCC > 12 or < 4
- MAP < 65 or SBP < 90
- organ dysfunction / hypoperfusion
- 2 of the above plus evidence of infection

### SEPTIC SHOCK

- Severe Sepsis criteria PLUS
  - Lactate > 4 or
- After IV fluid loading:
- MAP < 65 or SBP < 90
  - Organ dysfunction / hypoperfusion

### 1. 20ml/kg 0.9% Saline or Hartmanns fluid bolus

Or equivalent colloid bolus  
Consider Noradrenaline early for severe hypotension

### 2. Arterial Line

### 3. CVP line - sample for SCvO<sub>2</sub>

### 4. START EARLY GOAL DIRECTED THERAPY- if in first 6 hours (>6 hours or infection beyond 24 hours in ICU discuss with consultant)

- Lactate > 4 at any time  
Or after fluid bolus
- MAP < 65 or SBP < 90
- Organ dysfunction/  
hypoperfusion still present

## “EARLY GOAL DIRECTED THERAPY” - GOALS FIRST 6 HOURS:

### 1. CVP 8 – 12 mmHg\* → Fluid Load (colloid)

\*CVP 12-15 may be more appropriate if ventilated

### 2. SCvO<sub>2</sub> > 70% If < 70% → Transfuse to Hb 7g/dL (or 9g/dL if IHD) Dobutamine up to 20µg/kg/min

### 3. MAP > 65mmHg If < 65 → Noradrenaline Higher MAP may be appropriate e.g. previous hypertension Consider Steroids if unresponsive (see over page)

### 4. Urine > 0.5ml/kg/hr

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## 5. CULTURES, ANTIBIOTICS AND SOURCE CONTROL- SEE OVER

### Cultures- BEFORE antibiotics

- **Blood:** at least 2 cultures, including one from each vascular line present for over 24 hours and peripheral venepuncture
- **Other sites** urine, sputum, CSF, wound swab, pus, etc as appropriate to clinical condition

### Antibiotics

Give appropriate antibiotics **within 1 hour** of diagnosis after cultures obtained.

- These must be prescribed and administered within 1 hour
- Refer to unit guideline - **Empirical Antibiotics** ([118](#), [20](#), & [SJH](#))

### Source Control

Consider if the infective source is amenable to **SURGICAL** or **RADIOLOGICAL** treatment- abscess or other local focus. **Refer early.**

### Steroids

These should be **considered** if, despite **adequate** fluid loading and treatment with inotropes and or vasopressor (Noradrenaline 8mg% >12ml/hour or equivalent), hypotension (MAP<65) or shock persists.

Refer to guideline - [Steroids in Severe Sepsis](#)

### Blood Glucose - [Intensive Insulin Protocol](#)

Follow protocol.

### Ventilated Patients with ARDS - Protective Ventilation Strategy

Limit tidal volumes and pressures.

**Plateau Pressure <30cmH<sub>2</sub>O**

**Consider ARDS Net** ventilation parameters – see guideline [ARDS Ventilation Strategy](#).