



# SEPSIS KILLS!

**Does your patient have a NEWS  $\geq 2$   
and 2 of the following signs of SIRS?**

- 1 Respiratory Rate  $>20$ bpm**
- 2 Heart Rate  $>90$ bpm**
- 3 Altered mental state / acute confusion**
- 4 Temperature  $<35$  degrees or  $>38$  degrees**
- 5 Glucose  $>7.7$  mmol/l (not diabetic)**
- 6 WCC  $>12$ , WCC  $<4$**
- 7 Raised CRP**

**YES?**

***You must complete and action  
the proforma overleaf***

## **RECOGNISE**

**risk factors, signs and  
symptoms of Sepsis**

## **RESUSCITATE**

**with rapid intravenous  
fluids and antibiotics  
within the first hour of  
recognition of Sepsis**

## **REFER**

**to senior clinicians  
and specialty teams**

- 1.** Venous lactate and venous blood gases are acceptable (bottle and gas syringe are available in the sepsis pack).
- 2.** Shortened time to antibiotic administration saves lives.
- 3.** Antibiotic advice is attached to the sepsis trolley.
- 4.** If no diagnosis, but is sepsis, treat as "sepsis unknown origin".
- 5.** Pumps and fluids are in the sepsis trolley.
- 6.** Follow proforma.
- 7.** Seek senior advice.
- 8.** Consider whether your patient is immunocompromised.
- 9.** Don't forget allergies, drug interactions and renal compromise.
- 10.** Antibiotics must be reviewed after the first dose.

***Be aware Sepsis is a cause of acute kidney injury***

# Adult Sepsis Management Pathway

Complete for all non-elective patients at admission (except trauma) and for inpatients with NEWS scores  $\geq 2$

Name

Hospital No

DOB

Time

Date

GMC

Name

No sign of Sepsis ☐

## Sepsis

### Confirmed or Suspected Infection

- |                                |                                  |   |
|--------------------------------|----------------------------------|---|
| <input type="checkbox"/> Chest | <input type="checkbox"/> Urinary | <input type="checkbox"/> CNS (Meningitis) |
| <input type="checkbox"/> Skin  | <input type="checkbox"/> Abdomen | <input type="checkbox"/> Joint            |
|                                | <input type="checkbox"/> Unknown |   |

and

### at least 2 SIRS or general variables

- |  |   |   |
|--|---|---|
| <input type="checkbox"/> HR > 90                           | <input type="checkbox"/> T° > 38° or < 36°C | <input type="checkbox"/> Altered mental state |
| <input type="checkbox"/> RR > 20                           | <input type="checkbox"/> WBC > 12 or < 4    |   |
| <input type="checkbox"/> BMs: > 7.7 mmol/L in Non Diabetic |   |   |

YES

### Within first hour of diagnosis

- ☐ Measure Serum Lactate
- ☐ Administer broad spectrum antibiotic as per hospital protocol
- Drug  Time
- ☐ IV Access ☐ Blood Gases ☐ CXR ☐ Hourly NEWS
- ☐ Blood Cultures – 2 sets (Ideally Prior to antibiotic administration)
- ☐ Bloods: FBC / U&E / LFTs / CRP / INR / BMs
- ☐ BP: Aim for urine output (UOP) of > 0.5ml / kg / hr
- ☐ Oxygen: Aim for SATS 88-92 in type 2 Respiratory failure or COPD and 94-98 in others. Deliver high flow oxygen.

## Red Flag Sepsis

### Any Features of Red Flag Sepsis? (ie End Organ Dysfunction) Mortality 20 - 35%

- |   |  |
|---|--|
| <input type="checkbox"/> Lactate > 2                                  |  |
| <input type="checkbox"/> Creatinine > 177 $\mu$ mol/L or              |  |
| <input type="checkbox"/> Creatinine of > 45 $\mu$ mol/L over baseline |  |
| <input type="checkbox"/> Oliguria < 0.5mls/kg/hr for > 2hrs           |  |
| <input type="checkbox"/> Altered Mental State                         | <input type="checkbox"/> Platelets < 100               |
| <input type="checkbox"/> BP Low < 90 systolic                         | <input type="checkbox"/> Bilirubin > 35 $\mu$ mol/L    |
| <input type="checkbox"/> INR > 1.5                                    | <input type="checkbox"/> Hypoxia pO <sub>2</sub> < 8.0 |

YES

Referred to Senior / Cons

NO

Observe hourly. Inform Senior if NOT improving

## Septic Shock

Mortality very high 40 - 60%

As above and Profound Hypotension (BP less than 90 Systolic)

Hypotension Resistant to Fluid Challenges

YES

### Within three hours of diagnosis

- ☐ Ensure all above steps have been completed **and**
- ☐ Source Control including urgent imaging
- ☐ Urinary Catheterisation
- ☐ Fluid Resuscitate with either Saline or Hartmans
- ☐ If sBP < 90 mmHg or MAP < 65 mmHg or Lactate > 4mmol/L give 30m l/kg crystalloid. If not given, reason
- ☐ Repeat Lactate in 1hour
- ☐ Half hourly NEWS
- ☐ Inform Outreach on 3914 / Critical Care 3765 at Southport or Bed manager at Ormskirk 3700

Now check below for Septic shock

- ☐ Ensure all above steps have been completed **and**
- ☐ **Urgent** referral to ITU / Critical Care
- ☐ Continue with aggressive Fluid Resuscitation
- ☐ Consider Central Venous Access
- ☐ Urinary Catheterisation
- ☐ 15 minute NEWS

Diagnosis confirmed as: ☐ Sepsis ☐ Red Flag Sepsis ☐ Septic shock