

# Sepsis Predisposition & Recognition

(ALWAYS USE CLINICAL JUDGEMENT)

There are separate sepsis criteria for non-pregnant adult patients



MATERNITY PATIENTS



Complete this form and apply if there is a clinical suspicion of infection.

## Section 1:

Midwife Name:

Midwife Signature:

NMBI PIN:

IMEWS:

Date:  Time:

Patient label here

**Maternal Sepsis is a life-threatening condition defined as organ dysfunction resulting from infection during pregnancy, childbirth, post-abortion or postpartum period (WHO 2016).**

## Section 2: Are you concerned that the woman could have infection

- |  |  |
|--|--|
| <input type="checkbox"/> History of fevers or rigors                     | <input type="checkbox"/> Possible intrauterine infection                 |
| <input type="checkbox"/> Cough/sputum/breathlessness                     | <input type="checkbox"/> Myalgia/back pain/general malaise/headache      |
| <input type="checkbox"/> Flu like symptoms                               | <input type="checkbox"/> New onset of confusion                          |
| <input type="checkbox"/> Unexplained abdominal pain/distension           | <input type="checkbox"/> Cellulitis/wound infection/perineal infection   |
| <input type="checkbox"/> Pelvic pain                                     | <input type="checkbox"/> Possible breast infection                       |
| <input type="checkbox"/> Vomiting and/or diarrhoea                       | <input type="checkbox"/> Multiple presentation with non-specific malaise |
| <input type="checkbox"/> Line associated infection/redness/swelling/pain | <input type="checkbox"/> Others  |

## Section 3: Obstetric History

## Risk factors

Para:

Gestation:

Pregnancy related complaints:

Days post-natal:

Delivery:

- Spontaneous vaginal delivery (SVD)  
 Vacuum assisted delivery  
 Forceps assisted delivery  
 Cesarean section

### Pregnancy Related

- Cerclage  
 Pre-term/prolonged rupture of membranes  
 Retained products  
 History pelvic infection  
 Group A Strep. infection in close contact  
 Recent amniocentesis

### Non Pregnancy Related

- Age > 35 years  
 Minority ethnic group  
 Vulnerable socio-economic background  
 Obesity  
 Diabetes, including gestational diabetes  
 Recent surgery  
 Symptoms of infection in the past week  
 Immunocompromised e.g. Systemic Lupus  
 Chronic renal failure  
 Chronic liver failure  
 Chronic heart failure

Record observations on the Irish Maternity Early Warning (IMEWS) chart.

Request immediate medical review

if you are concerned the woman has **INFECTION** plus **ANY 1** of the following:

## Section 4:

- IMEWS trigger for immediate review, i.e. **>2 YELLOWS** or **>1 PINK**
- SIRS Response, i.e.  $\geq 2$  SIRS criteria listed below.  
**SIRS criteria:** Note - physiological changes must be sustained not transient.

<input type="checkbox"/> Respiratory rate $\geq 20$ breaths/min	<input type="checkbox"/> WCC $< 4$ or $> 16.9 \times 10^9/L$	<input type="checkbox"/> Acutely altered mental status
<input type="checkbox"/> Heart rate $\geq 100$ bpm	<input type="checkbox"/> Temperature $< 36^\circ$ or $\geq 38^\circ C$	<input type="checkbox"/> Bedside glucose $> 7.7$ mmol/L (in the absence of diabetes mellitus)
<input type="checkbox"/> Fetal heart rate $> 160$ bpm		
- At risk of neutropenia, due to bone marrow failure, autoimmune disorder or treatment including but not limited to, chemotherapy and radiotherapy, who present unwell.

## Section 5:

If sepsis is suspected following screening, escalate to Medical review. Use ISBAR as outlined.

Doctor's Name:

Time Doctor Contacted:

Midwife's Signature:

# Sepsis Form - Maternity

(ALWAYS USE CLINICAL JUDGEMENT)

There are separate sepsis criteria for non-pregnant adult patients



If infection suspected following History and Examination, Doctor to complete and sign sepsis screening form

## Section 6: Clinical Suspicion of Infection

Document site:

- |  |   |  |
|--|---|--|
| <input type="checkbox"/> Genital Tract               | <input type="checkbox"/> Urinary Tract        | <input type="checkbox"/> Skin                    |
| <input type="checkbox"/> Respiratory Tract           | <input type="checkbox"/> Intra-abdominal      | <input type="checkbox"/> Catheter/Device Related |
| <input type="checkbox"/> Central Nervous System      | <input type="checkbox"/> Intra-articular/Bone | <input type="checkbox"/> Unknown                 |
| <input type="checkbox"/> Other suspected site: _____ |   |  |

No clinical suspicion of INFECTION: proceed to section 9.

## Section 7: Who needs to get the "Sepsis 6" – infection plus any one of the following:

- SIRS Response, i.e.  $\geq 2$  SIRS criteria listed on page 1.
- Clinically or biochemically apparent new onset organ dysfunction, i.e. any one of the following:

<input type="checkbox"/> Acutely altered mental state	<input type="checkbox"/> RR > 30	<input type="checkbox"/> O <sub>2</sub> sat < 90%	<input type="checkbox"/> HR > 130
<input type="checkbox"/> Oligo or anuria	<input type="checkbox"/> Pallor/mottling with prolonged capillary refill	<input type="checkbox"/> SBP < 90	
<input type="checkbox"/> Non-blanching rash	<input type="checkbox"/> Other organ dysfunction	_____	
- Patients at risk of neutropenia, due to bone marrow failure, autoimmune disorder or treatment including but not limited to, chemotherapy and radiotherapy, who present unwell.

**YES. Start Maternal Sepsis 6 + 1** Time Zero: \_\_\_\_\_

### Section 8

**TAKE 3**

**SEPSIS 6 + 1\* – complete *within 1 hour***

**GIVE 3**

- |  |   |
|--|---|
| <input type="checkbox"/> <b>BLOOD CULTURES:</b> Take blood cultures before giving antimicrobials (if no significant delay i.e. >45 minutes) and other cultures as per examination.                   | <input type="checkbox"/> <b>OXYGEN:</b> Titrate O <sub>2</sub> to saturations of 94 - 98% or 88-92% in chronic lung disease. <b>N/A</b> <input type="checkbox"/>  |
| <input type="checkbox"/> <b>BLOODS:</b> Check point of care lactate & full blood count, U&E +/- LFTs +/- Coag. Other test and investigations as indicated by history and examination.                | <input type="checkbox"/> <b>FLUIDS:</b> Start IV fluid resuscitation if evidence of hypovolaemia. 500ml bolus of isotonic crystalloid over 15mins & give up to 2 litres, reassessing frequently. Call Anaesthesia/Critical Care if hypotensive or not fluid responsive. Caution in pre-eclampsia. <b>N/A</b> <input type="checkbox"/> |
| <input type="checkbox"/> <b>URINE OUTPUT:</b> assess urinary output as part of volume/perfusion status assessment. For patients with sepsis or septic shock start hourly urinary output measurement. | <input type="checkbox"/> <b>ANTIMICROBIALS:</b> Give IV antimicrobials according to the site of infection and following local antimicrobial guidelines.   |
- Type: \_\_\_\_\_ Dose: \_\_\_\_\_ Time given: \_\_\_\_\_
- Type: \_\_\_\_\_ Dose: \_\_\_\_\_ Time given: \_\_\_\_\_
- Type: \_\_\_\_\_ Dose: \_\_\_\_\_ Time given: \_\_\_\_\_

\*+1 If Pregnant, Assess Fetal Wellbeing

Laboratory tests should be requested as EMERGENCY aiming to have results available and *reviewed within 1 hour*

### Section 9

Following history and examination, and in the absence of clinical criteria or signs. Sepsis 6+1 is not commenced. If infection is diagnosed, proceed with usual treatment pathway for that infection.

**NO.** Doctor's Name: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

### Section 10

Look for signs of new organ dysfunction after the Sepsis 6+1 bundle or from blood tests - any one is sufficient:

- |  |   |
|--|---|
| <input type="checkbox"/> Lactate $\geq 4$ after 30mls/kg Intravenous therapy   | <input type="checkbox"/> Renal - Creatinine > 170 micromol/L or Urine output < 500mls/24 hrs – despite adequate fluid resuscitation |
| <input type="checkbox"/> Cardiovascular - Systolic BP < 90 or Mean Arterial Pressure (MAP) < 65 or Systolic BP more than 40 below patient's normal | <input type="checkbox"/> Liver - Bilirubin > 32 micromol/L  |
| <input type="checkbox"/> Respiratory - New or increased need for oxygen to achieve saturation > 90% (note: this is a definition, not the target)   | <input type="checkbox"/> Haematological - Platelets < 100 x 10 <sup>9</sup> /L  |
|  | <input type="checkbox"/> Central Nervous System - Acutely altered mental status   |

One or more new organ dysfunction due to infection:

**This is SEPSIS.** Inform Registrar, Consultant and Anaesthetics immediately. Reassess frequently in 1<sup>st</sup> hour. Consider other investigations and management +/- source control if patient does not respond to initial therapy as evidenced by haemodynamic stabilisation then improvement.

No new organ dysfunction due to infection:

**This is NOT SEPSIS.** If infection is diagnosed proceed with usual treatment pathway for that infection.

### Section 11

Look for signs of septic shock

(following adequate initial fluid resuscitation, typically 2 litres in the first hour unless fluid intolerant)

Requiring inotropes/pressors to maintain MAP  $\geq 65$

**This is SEPTIC SHOCK**

- Inform Consultant  
 Contact CRITICAL CARE/Anaesthesia

### Pathway Modification

All Pathway modifications need to be agreed by the Hospital's Sepsis Steering Committee and be in line with the National Clinical Guideline No 6 Sepsis Management.

### Section 12

## Clinical Handover. Use ISBAR<sub>3</sub> Communication Tool

This section only applies when handover occurs before the form is completed and is then signed off by the receiving doctor.

Doctor's Name (PRINT): \_\_\_\_\_ Doctor's Signature: \_\_\_\_\_ Doctor's Initials \_\_\_\_\_ MCRN \_\_\_\_\_

Patient care handed over to: \_\_\_\_\_ Time: \_\_\_\_\_ Sections completed: \_\_\_\_\_

File this document in patient notes - Document management plan.

Doctor's Name: \_\_\_\_\_ Doctor's Signature: \_\_\_\_\_ MCRN: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_