

MODIFIED EARLY OBSTETRIC WARNING CHART (MEOWS CHART)



Contact clinical decision maker if patient triggers **ONE RED** or **TWO YELLOW** flags at any one time.

Patient					Patient ID					DOB/Age						
Date																
Time																
Initials																

WRITE VALUES IN BOXES PROVIDED

Respiratory rate (breaths per minute)	25 or more	RED															
	21 - 24	YELLOW															
	11 - 20	NORMAL															
	10 or less	RED															
Oxygen saturations (%)	95 or more	NORMAL															
	94 or less OR needing oxygen	RED															
Temperature (°C)	38 or more	YELLOW															
	36.0 to 37.9	NORMAL															
	35.9 or less	YELLOW															
Heart rate (beats per minute)	120 or more	RED															
	100 - 119	YELLOW															
	50 - 99	NORMAL															
	40 - 49	YELLOW															
Systolic blood pressure (mmHg)	120 or more	RED															
	140 - 159	YELLOW															
	100 - 139	NORMAL															
	90 - 99	YELLOW															
Diastolic blood pressure (mmHg)	89 or less	RED															
	110 or more	RED															
	90 - 109	YELLOW															
	40 - 89	NORMAL															
Urine output (hours since patient passed urine (tick box))	12 hours or less	NORMAL															
	12 - 18 hours	YELLOW															
	18 hours or more OR less than 0.5 mL/kg/hour	RED															
Mental State (tick box)	Alert	NORMAL															
	Not Alert	RED															
Looks unwell (tick box)	No	NORMAL															
	Yes	YELLOW															
TOTAL YELLOW FLAGS																	
TOTAL RED FLAGS																	
ACTION TAKEN (IF REQUIRED) Yes (Y) / No (N)																	

DECISION TOOL



Patient name		Staff name	
Date of birth or age		Role	
Patient ID		Signature	
Date	___/___/___	Time	___:___

START HERE

- Abnormal vital signs (Resp rate / Temp / HR / BP / Urine output / Mental state) or MEOWS chart trigger
- OR
- Concerned about a potential maternal infection
- OR
- Fetal tachycardia (greater than or equal to 160 beats per minute)

COULD SHE HAVE AN INFECTION?

- Abdominal pain or distension
- Breast abscess / mastitis
- Chorioamnionitis / endometritis
- Infected cannula / line
- Infected perineal / abdominal wound
- Lower respiratory tract infection
- Meningitis
- Severe sore throat
- Urinary tract infection
- Yes, but source unclear
- Other (specify)

ANY SEPSIS RED FLAG PRESENT?

- Respiratory rate **25 breaths per minute or more**
- Oxygen saturations **94% or less OR oxygen needed to keep saturations 95% or more**
- Heart rate **120 beat per minute or more**
- Systolic blood pressure **89 mmHg or less**
- Not passed urine **in over 18 hours/less than 0.5 ml/kg/hr if catheterized**
- Mental state **Not Alert**

ANY TWO SEPSIS YELLOW FLAGS PRESENT?

- Respiratory rate **21 - 24 breaths per minute**
- Temperature **35.9°C or less OR 38°C or more**
- Heart rate **100-119 beats per minute**
- Systolic blood pressure **90 - 99 mmHg**
- Passed urine in last **12-18 hours**
- Looks unwell
- Risk factors (e.g. immunosuppressed / steroids / diabetes)

REVIEW BY CLINICAL DECISION MAKER

Review by clinical decision maker within 3 hours and continue hourly maternal observations.

Review taken place within 3 hours? YES NO

Date: ___/___/___ Time: ___:___

Antibiotics required? YES NO

YES

START FAST-M BUNDLE NOW

Review by clinical decision maker and actions **within ONE HOUR.**

IF ANY RED FLAGS DEVELOP

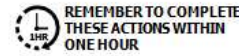
LOW RISK OF SEPSIS

Review and manage accordingly. Monitor inpatients with MEOWS chart. Educate outpatients on warning signs.

UNITED AGAINST MATERNAL SEPSIS

THINK SEPSIS, ACT FAST-M

TREATMENT BUNDLE



Patient name			Staff name		
D.O.B or age			Role / Cadre		
Patient ID			Signature		
Date & time of red flag observation	—/—/— :—	Date & time bundle started	—/—/— :—	Date & time of review by clinical decision maker	—/—/— :—

F	FLUIDS (caution in pre-eclampsia, severe anaemia and pulmonary oedema)				
	Date	—/—/—	Time fluids initiated	—:—	Initials
Details / reason not completed					Give 500 ml crystalloid immediately. Repeat 500 ml boluses to a maximum of 30 ml/kg if hypotension persists.

A	ANTIBIOTICS				
	Date	—/—/—	Time started	—:—	Initials
Details / reason not completed					See antibiotic guidelines below

S	SOURCE – identify and treat the source of infection				
	Date	—/—/—	Time considered	—:—	Initials
Details / reason not completed					See source identification and treatment boxes below

T	TRANSPORT (to higher level hospital or location within hospital, if required)				
	Date & time transport considered	—/—/— :—	Initials	Transport Required	<input type="checkbox"/> YES <input type="checkbox"/> NO
	Date & time transport requested	—/—/— :—	Initials	<input type="checkbox"/> N/A	
	Date & time patient left facility	—/—/— :—	Initials		
	Destination				
Reason for any delay					

m	MONITORING (start MEOWS chart if not already started. Repeat observations every 30 minutes until otherwise decided by clinical decision maker)				
	Date & time monitoring commenced	—/—/— :—	Details / reason not completed		
	Maternal / fetal monitoring should include	<ul style="list-style-type: none"> Respiratory rate Oxygen Saturations Temperature Heart rate Blood pressure Urine output Mental state Fetal heart rate 			
Neonatal monitoring and review commenced	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A				

ANTIBIOTIC GUIDELINES
Insert local guidance here
<p>Immediate treatment for Maternal Sepsis:</p> <ul style="list-style-type: none"> Ceftriaxone 2 g IV once daily (if no IV access this can be given as 2 IM injections of 1 g in different sites). If possible intra-abdominal source add Metronidazole 500 mg IV three times daily or 400 mg PO three times daily. <p>If above antibiotic regime is not available then give:</p> <ul style="list-style-type: none"> Tazobactam 4.5 g IV daily two times a day Meropenem 1 g IV daily two times a day

IDENTIFY THE SOURCE
<p>Consider</p> <ul style="list-style-type: none"> Clinical history Clinical examination Blood tests (if available) (FBC, U&Es, LFTs, CRP, clotting) Blood cultures HIV and Malaria testing Urine sample Swabs (wound, vagina, throat) Sputum sample Imaging (abdominal, chest) Lumbar puncture Other _____
REMOVE / TREAT THE SOURCE
<p>Consider</p> <ul style="list-style-type: none"> Malaria treatment Consider delivery of baby Removal of retained products of conception Debridement of wound / drainage of collection Removal of infected cannula / line Hysterectomy Targeted antibiotics once source known

