Maternity Early Obstetric Warning Scoring System



Contents

1. Introduction and Who Guideline applies to	1
Related Documents	1
Background:	2
2. When to use the maternity early warning scoring system	
3. Who should perform MEOWS:	
4. The Scoring System: Parameters	2
5. The Scoring System: Actions (Dr to review if any RED scores)	
6. Ongoing Observations: Normal Scores (0):	
7. Education and Training	5
8. Monitoring Compliance	
9. Supporting References	
10. Key Words	
Development and approval record for this document	
Appendix I: Modified Early Obstetric Warning Scoring Assessment Tool	

1. Introduction and Who Guideline applies to

For the vast majority of women, childbearing is a normal life event. Physiological adaptations enable safe pregnancy, childbirth and postnatal recovery. However, these physiological adaptations, combined with the relative rarity of severe maternal illness can come together to make recognition of impending maternal collapse difficult.

Implementation of an early warning scoring system, modified for pregnancy / postnatal period, offers the opportunity to recognise the early warning signs for impending maternal collapse (arrest) which can be very sudden, unexpected, or difficult to predict and initiate appropriate response.

The implementation of such a system is in line with numerous best practice recommendations (including CEMACH 2007 & MBRRACE-UK 2016).

This guideline applies to all staff (including those on bank contracts) working within UHL caring for pregnant or postnatal women. This includes care in all settings (midwifery led or shared care; community or hospital setting). This is likely to include midwives, obstetricians, anaesthetic, critical care staff and nursing and medical staff where pregnant or postnatal women are on non-maternity wards.

This guideline applies to all pregnant or postnatal women, irrespective of location Within UHL.

For the purpose of this guideline the postnatal period is considered to be from delivery up to 6 weeks after the birth of the baby (irrespective of gestation at delivery).

Related Documents

Intrapartum Care in Labour

Pyrexia and Sepsis in Labour- A guideline for management

Pregnant Women Admitted Outside Maternity Unit

Page 1 of 12

Background:

Early Warning Scoring Systems are a simple, quick-to-use tool based on routine physiological observations. The scoring of these observations can provide an indication of the overall status of the patient's condition. Prompt action and urgent medical review when indicated, allow for appropriate management of women at risk of deterioration. This guideline therefore applies to all pregnant, labouring and postnatal women as identified in section 2.

There are other Early Warning Scoring Tools within UHL. The Trust now uses the National Early Warning Scoring tool (NEWS2) for all adult patients, within this there is a NEWS2 model for patients diagnosed with hypercapnia. Paediatrics use a PEWS version.

The Maternity Early Obstetric Warning System (MEOWS) tool has been specifically modified to reflect the physiological adaptations of normal pregnancy and should therefore be used for pregnant, labouring and postnatal.

2. When to use the maternity early warning scoring system

MEOWS assessments must be undertaken and documented, *regardless of location*, on initial assessment and thereafter 12 hourly or as indicated by the score, for:

- All women in active labour and all women following delivery. Routine intrapartum observations should also be performed as per the intrapartum care guideline.
- All antenatal admissions to hospital
- All postnatal admissions to hospital
- All in-patients to have ongoing MEOWS assessments, regardless of the reason for admission / stay (see below)
- All non-routine and / or non-scheduled contacts, either antenatal or postnatal
- If any health problem is suspected at any time
- If the mother ever reports feeling 'unwell'

3. Who should perform MEOWS:

- This will usually be performed by Midwives
- It may also be performed by Maternity Care Assistants providing they have undergone the appropriate training as per the Training Needs Analysis
- It may also be performed by student midwives under the supervision (direct/indirect) of the midwife mentoring them providing they have been assessed competent to do so.

4. The Scoring System: Parameters

MEOWS assessments must be undertaken when indicated, as detailed in section 6.0, and documented on eObs on the Nervecentre platform (see Nervecentre user guide on InSite). Should Nervecentre not be available, the paper MEOWS assessment tool should be used (Appendix I). MEOWS paper assessment charts should be filed as follows:

• MEOWS charts generated during an in-patient episode are to be filed in the green maternity notes on discharge from hospital.

• MEOWS charts generated in the community are to remain with the mother, securely attached in the hand-held / post-natal record.

Score	3	2	1	0	1	2	3
Temp.		≤ 35	35.1-36	36.1- 37.9	38-38.4	≥38.5	
Systolic BP	≤ 70	71-90	91-99	100- 130	131-139	140-160	>160
Diastolic BP			≤ 49	50-89	90-99	100-109	>110
Pulse		≤ 40	41-59	60-100	101-110	111-129	>130
Respiratory Rate	*≤10			11-20	21-25	26-30	>30
Conscious level		New agitation/ confusion		A ALERT	V Responds to VOICE	*P Responds to PAIN	*U Unconscious

Scoring is based on the following parameters:

*key indicators

 Additionally, there are obstetric parameters on the chart which do not have a numerical score but may trigger actions if response falls into amber or red area.

5. The Scoring System: Actions (Dr to review if any RED scores)

Score 0:	 Repeat in twelve hours for all in patients Community assessment for non-scheduled contact, score of 0 and NO other risk factors / indications: repeat not necessary. Exercise professional judgement and document rationale
Score 1-2:	 Refer to Qualified/Registered Professional Midwife devises plan & documents when to repeat (i.e. in 1 hour / 4 hours / 12 hours) Continue with at least 12 hourly observations
Score 3:	 Refer to Qualified/Registered Professional Increase frequency of observations to 4 hourly Consider need to increase frequency of observations to intervals of less than 4 hours

Score 3 within 1 parameter:	 Refer to Qualified/Registered Professional to re-check observations Observation frequency increased to at least hourly Commence fluid balance monitoring, consider urinary catheter Midwife to inform Medical staff of <i>at least</i> Middle Grade (Registrar) level: request to review as soon as possible and within 60 minutes Consider transfer to delivery suite Inform resident anaesthetist Check oxygen saturations and administer oxygen as appropriate Check for sepsis
Score 4-5	 Refer to Qualified/Registered Professional to re-check observations Minimum of hourly observations Commence fluid balance monitoring Medical staff of <i>at least</i> Middle Grade (Registrar) level to review within 30 minutes Registrar seeks senior advice Inform resident anaesthetist Transfer to delivery suite /inform delivery suite coordinator (if within Women's Unit) Check oxygen saturations and administer oxygen as appropriate Check for sepsis
Score 6 or more	 Immediate transfer to delivery suite/inform delivery suite coordinator Request immediate review by most senior resident doctor (within 30 minutes) Senior resident doctor refers to Consultant Obstetrician and review within an hour Inform resident anaesthetist Anaesthetist to inform Anaesthetic Consultant Contact Deteriorating Adult Response Team (DART) /consider direct contact with ITU Observations documented at least every 15 minutes Check oxygen saturations and administer oxygen as appropriate Commence HDU chart where score >6 Check for sepsis
Score ≥ 4 in Women admitted outside Maternity	 Please contact the delivery suite coordinator to plan care and contact Obstetric and Anaesthetic SpR on call

Please note that actions may need to deviate from the above in individual cases; where this applies, the management plan should be documented.

6. Ongoing Observations: Normal Scores (0):

 'Normal' in a MEOWS context is a woman who has had two consecutive MEOWS scores of 0 and no additional indications.

- In-patients who have two consecutive MEOWS scores of 0 can have MEOWS observations reduced to once daily.
- If the woman reports any problems, feeling unwell, if score is >0, or any problem is suspected, then MEOWS frequency is increased back to 12 hourly (minimum, dependent on findings), until 'normal' again.

7. Education and Training

• Education will be provided for all clinical staff working with the UHL Maternity Services by the Maternity Education Team; this is detailed in the Training Needs Analysis and includes the use of MEOWS as a tool for the recognition of the severely ill woman and maternal resuscitation.

What will be measured to monitor compliance	How will compliance be monitored	Monitoring Lead	Frequency	Reporting arrangements
All MEOWS charts should be completed on initial assessment	Audit of the MEOWS charts	Midwifery Matrons	Monthly	Reported on the Clinical Dashboard
All MEOWS charts should be completed 12 hourly or as indicated by the score	Audit of the MEOWS charts	Midwifery Matrons	Monthly	Reported on the Clinical Dashboard
Appropriate action has been taken according to each score	Audit of the MEOWS charts	Midwifery Matrons	Monthly	Reported on the Clinical Dashboard

8. Monitoring Compliance

9. Supporting References

- MBRRACE-UK (2016) Saving Lives, Improving Mothers' Care
- NICE (2007) Acutely III patients in hospital: recognition of and response to acute illness in adults in hospital (clinical guideline 50)- updated 2014, reviewed 2020 – no changes
- Lewis G. (ed) 2007. The confidential Enquiry into Maternal and Child Health
- (CEMACH) Saving Mothers' Lives: reviewing maternal deaths to make motherhood safer 2003-2005. The Seventh Report on Confidential Enquiries into Maternal Deaths in the United Kingdom. London: CEMACH
- Centre for Maternal and Child enquiries (CEMACE). Saving mothers lives: reviewing maternal deaths to make motherhood safer 2006-08. The Eighth Report on Confidential Enquiries into Maternal Deaths in the United Kingdom BJOG 2011
- National Patient Safety Agency (2007a) Recognising and Responding Appropriately to Early Signs of Deterioration in Hospitalised Patients. London: NPSA. www.npsa.nhs.uk
- Maternal collapse in pregnancy and puerperium RCOG green top guideline NO: 56, January 2011

- Gopalan PD, Muckhart DJ. The critically ill obstetric patient: what's the score? Int J Obstet Anesth 2004; 13:144–5
- Singh S, McGlennan A, England A, Simons R. A validation study of the CEMACH recommended modified early obstetric warning system (MEOWS)*. Anaesthesia 2012, 67, 12–18

10. Key Words	10.	. Key	/ W	ords
---------------	-----	-------	-----	------

Assessment, Deterioration, Maternal, MEOWS, Observation

The Trust recognises the diversity of the local community it serves. Our aim therefore is to provide a safe environment free from discrimination and treat all individuals fairly with dignity and appropriately according to their needs.

As part of its development, this policy and its impact on equality have been reviewed and no detriment was identified.

	Deve	lopment and appro	oval reco	ord for this o	document	
Author / Lead Officer:	Original	Norking Party			Job Title:	
Reviewed by:	A Akkad	 Consultant 				
Approved by:	Maternity	Governance			Date Approved: 19	9/05/2021
		REVII	EW RECO	RD		
Date	lssue Number	Reviewed By		Description	Of Changes (If Any	y)
May 2019	V3	R Henson	observa observa team ad	tion chart and in tion chart adde ded. Requirem	o come into line with n readiness for E Ob d. Use of Critical car ent to document in d pring compliance add	s. Latest e Outreach ots and not
May 2021	∨4	A Akkad	platform Escalation List of in of obser scores of MEOWS	on to DART no dications to co		more only. g frequency
October 2021	V4.1	A Akkad	Change		eference to Trust EW ate surgical & medica	
		DISTRIBU	JTION RE	CORD:		
Date June 2021	Name Midwives Obstetricia Anaesthet			Dept Maternity/Obs	stetrics	Received

Appendix I: Modified Early Obstetric Warning Scoring Assessment Tool

Forename: Patient ID Label D.O.B.: Ward: Hospital No.: NHS No.: UHL MATERNITY RISK ASSESSMENT UHL MATERNITY RISK ASSESSMENT MEOWS Indication (please tick all that apply) Labour Health problem suspected Antenatal admission Mother reports feeling 'unwell' Postnatal admission Allergies Inpatient Non-scheduled/Non-routine contact SBAR Reporting For good communication about patients between all health professionals, use SBAR too • State your name and ward / depart	of Leicester				
Hospital No.: NHS No.: Site: UHL MATERNITY RISK ASSESSMENT MEOWS Indication (please tick all that apply) Labour Health problem suspected Antenatal admission Mother reports feeling 'unwell' Postnatal admission Allergies Inpatient Non-scheduled/Non-routine contact SBAR Reporting For good communication about patients between all health professionals, use SBAR tool					
UHL MATERNITY RISK ASSESSMENT MEOWS Indication (please tick all that apply) Labour Health problem suspected Antenatal admission Mother reports feeling 'unwell' Postnatal admission Allergies Inpatient Non-scheduled/Non-routine contact SBAR Reporting For good communication about patients between all health professionals, use SBAR tool					
MEOWS Indication (please tick all that apply) Labour Health problem suspected Antenatal admission Mother reports feeling 'unwell' Postnatal admission Allergies Inpatient Inpatient Non-scheduled/Non-routine contact SBAR Reporting For good communication about patients between all health professionals, use SBAR too					
Labour Health problem suspected Antenatal admission Mother reports feeling 'unwell' Postnatal admission Allergies Inpatient Non-scheduled/Non-routine contact SBAR Reporting For good communication about patients between all health professionals, use SBAR tool					
Antenatal admission Mother reports feeling 'unwell' Postnatal admission Allergies Inpatient Non-scheduled/Non-routine contact SBAR Reporting For good communication about patients between all health professionals, use SBAR too					
Postnatal admission Allergies Inpatient Non-scheduled/Non-routine contact SBAR Reporting For good communication about patients between all health professionals, use SBAR too					
Inpatient Inpatient SBAR Reporting For good communication about patients between all health professionals, use SBAR too					
Non-scheduled/Non-routine contact SBAR Reporting For good communication about patients between all health professionals, use SBAR too					
SBAR Reporting For good communication about patients between all health professionals, use SBAR too					
For good communication about patients between all health professionals, use SBAR too					
State your name and ward / depart	l before calling				
	tment				
• I am calling about patient's name					
what is going on now?					
Observations are	date of admission				
Background State the admission diagnosis and	date of admission				
Relevant medical history	2				
• A brief summary of treatment					
State your assessment of the patient	nt Z				
Assessment what you found / think is going on? • Have appropriate documents avail. e.g. EWS, nursing and medical recor- resus status, allergies etc	ords,				
I would like (state what you would	like done)				
Recommendation Determine timescales, e.g. NOW!					
what you want to happen Is there anything I should do?					
Other referrals? e.g. Acute Care Te	am				
RISK ASSESSMENT CONTENTS Modified Early Obstetric Warning Score (MEOWS) Adult Sepsis Screening and Immediate Action Tool Infection Risk Management Tool Pregnancy and Postnatal VTE Risk Assessment					
Waterlow/Patient Handling Risk Assessment					
Nutritional Assessment					
Peripheral IV Cannula Care Bundle					
Urinary Catheter Care Pathway					

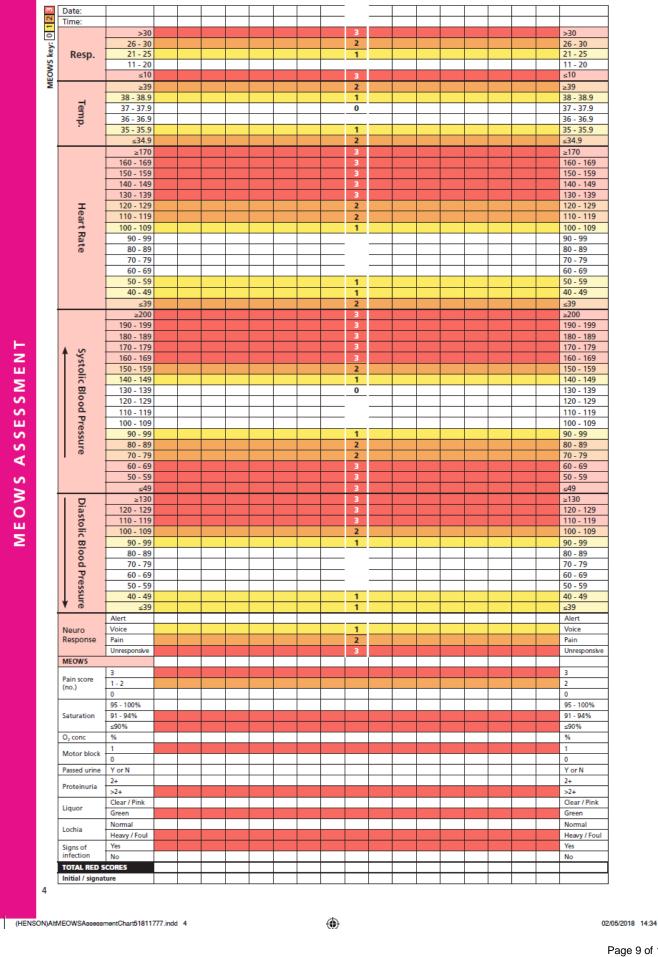
Title: Maternity Early Warning Scoring System V4.1 Reviewed by: A Akkad Approved by: Maternity Governance Group: 19/05/2021 Trust Ref No: C16/2018 NB: Paper copies of this document may not be most recent version. The definitive version is held on InSite in the <u>Policies and Guidelines</u> <u>Library</u>

		ACTION		
	If a	ny RED score, Doctor to review		
	 Repeat in twelve h 	ours for all in patients.		
Score 0		nent for non-scheduled contact, score of 0 and NO other risk factors/ not necessary. Exercise professional judgement and document rational		
	Refer to Qualified	/ Registered Professional		
Score 1 - 2	Midwife devises pla	an & documents when to repeat (i.e. in 1 hour / 4 hours / 12 hours)		
	Continue with at le	east 12 hourly observations		
	Refer to Qualified	/ Registered Professional to recheck observations		
Score 3	Increase frequency	of observations to 4 hourly		
	Consider need to in	ncrease frequency of observations to intervals of less than 4 hours		
	• Check oxygen satu	rations and administer oxygen as appropriate		
	Refer to Qualified	/ Registered Professional to recheck observations		
C	Observation freque	ency increased to at least hourly		
Score 3 within 1	Commence fluid ba	alance monitoring. Consider urinary catheter		
parameter	• Midwife to inform request to review v	Medical staff of at least Middle Grade (Registrar) level: vithin 60 minutes		
OBSERVATION	If Doctor not availa	able within time frame consider contacting Critical Care Outreach Team		
	Consider transfer t	o delivery suite		
	Inform resident an	aesthetist		
	 Check for Sepsis 			
	 Check oxygen satu 	rations and administer oxygen as appropriate		
	 Refer to Qualified/ 	Registered Professional to recheck observations		
	Minimum of hourly	y observations		
	Commence fluid balance monitoring			
	 Medical staff of at 	least Middle Grade (Registrar) level to review within 30 minutes		
Score 4 - 5	 If Doctor unable to and ask for review 	attend within time frame contact Critical Care Outreach Team		
	 Registrar seeks sen 	ior advice		
	 Inform resident an 	aesthetist		
	 Transfer to delivery 	visite / inform Delivery Suite Coordinator (if within the Women's Unit)		
	 Check for Sepsis 			
		rations an administer oxygen as appropriate		
		r to delivery suite / inform Delivery Suite Coordinator		
		e review by most senior resident doctor (within 30 minutes)		
		ctor refers to Consultant and review within an hour		
Score 6	Inform resident an			
or more		form Anaesthetic Consultant		
		re Outreach Team / consider direct contact with ITU		
		mented at least every 15 minutes		
		hart where score is greater than 6		
	Check for Sepsis			
Score ≥4 in women admitted outside Maternity		delivery suite co-ordinator to plan care Obstetric Reg and Anaesthetic SpR on call.		
		wiate from the above in individual cases;		
KEY:	MOTOR BLOCK	an should be documented.		
REY: Pain	0 = Full power /	Any woman with a score greater than 6 should be commenced on an HDU chart		
3 - Severe	sensation	should be commenced on an HDU chart		
2 - Moderate 1 - Mild	1 = Abnormal power /	Please assess the additional red scores as a minimur		
0 - None	sensation	twice a day, unless otherwise indicated		
2				

Title: Maternity Early Warning Scoring System V4.1 Reviewed by: A Akkad Approved by: Maternity Governance Group: 19/05/2021 Trust Ref No: C16/2018 NB: Paper copies of this document may not be most recent version. The definitive version is held on InSite in the Policies and Guidelines Ultimore Library

02/05/2018 14:34

Page 8 of 12

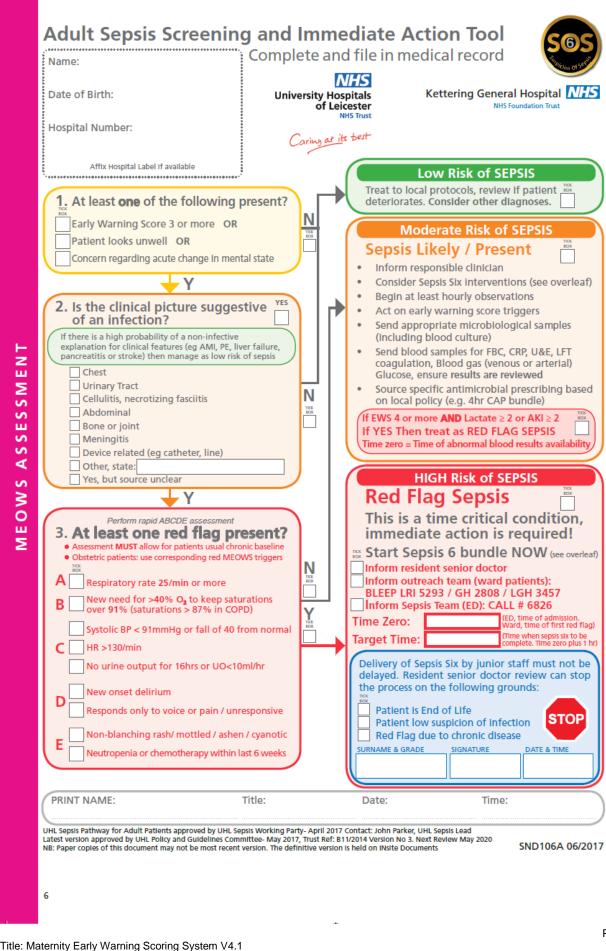


Title: Maternity Early Warning Scoring System V4.1 Reviewed by: A Akkad Approved by: Maternity Governance Group: 19/05/2021 Trust Ref No: C16/2018 NB: Paper copies of this document may not be most recent version. The definitive version is held on InSite in the Policies and Guidelines

Page 9 of 12

Next Review: May 2024

Library



Title: Maternity Early Warning Scoring System V4.1 Reviewed by: A Akkad Approved by: Maternity Governance Group: 19/05/2021 Trust Ref No: C16/2018 NB: Paper copies of this document may not be most rec

Next Review: May 2024

NB: Paper copies of this document may not be most recent version. The definitive version is held on InSite in the <u>Policies and Guidelines</u> Library

Sepsis Six Bundle		Supporting	Resources 回答法法国 马尔达在马
Complete in one hour. Actions should be carried out simultaneously. Use sepsis box / pack to support delivery of sepsis six Use sepsis box/pack to support delivery of sepsis	Seps Frequent	is thy Asked Questions	How to: Take a blood culture Draw up meropenem Use a sepsis box
1 Administer supplementary oxygen (if required) • Aim to keep saturations > 94% COPD: Adjust target saturations to 88-92%	Time Started	Name	Reason not administered
2 Blood Culture & Source Management Take blood cultures (before IV antibiotic) Think source confirmation and control! Consider also sputum, urine, CSF, line culture/removal involve appropriate surgical team / radiologist as indicated For Community Acquired Pneumonia start 4 hr CAP Bundle	Time Taken	Name	Reason not taken
Give IV antibiotics PRESCRIBE STAT (TIMED). GIVE YOURSELF OR MAKE SURE SOMEONE DOES • Red Flag Sepsis: Meropenem IV 1g stat (+/- second dose at 8hrs) and review at first inpatient consultant assessment (microbiology advice may be needed at this stage) • Sepsis: According to local antimicrobial policy	Time Given	Name	Reason for departure from prescribing guidance
Give a fluid challenge Check and monitor response If SBP <90mmHg or Lactate >2 • Give 500mls Hartmann's or 0.9% NaCl over 15 mins, repeat once if necessary • Senior resident doctor review to exclude other causes of shock before giving up to 30 ml/kg If SBP >90mmHg and Lactate <2 consider IV fluids	Time Given	Name	Reason not given
 Measure lactate Obtain blood gas - venous or arterial If lactate >4mmol/L refer to critical care Ensure samples are sent for FBC, CRP, U+E, LFT, coag screen Repeat lactate after fluid challenge 	Time Taken	Name	Reason not done
 Measure urine output Ensure hourly fluid balance chart commenced Catheterise if AKI / SBP <90 / Lactate >2 Monitor Vital Signs at 15-30mins intervals until EWS below 3 	Time Started	Name	Reason not started
 Critical Care Medical Team refer if patient: SBP <90 and lactate >2 after fluid resuscitation Has Red Flag Sepsis and lactate >4 Has Red Flag Sepsis and requires >50% O2 Has Red Flag Sepsis and significant respiratory/ cardiovascular/ CNS or renal dysfunction. 	Time Referred	Name of Referrer	Reason <u>NOT</u> Referred:

UHL Sepsis Pathway for Adult Patients approved by UHL Sepsis Working Party- April 2017 Contact: John Parker, UHL Sepsis Lead Latest version approved by UHL Policy and Guidelines Committee- May 2017, Trust Ref: B11/2014 Version No 3. Next Review May 2020 NB: Paper copies of this document may not be most recent version. The definitive version is held on INsite Documents

(HENSON)AltMEOWSAssessmentChart51811777.indd 7

SND106A 06/2017

02/05/2018 14:34

7

Title: Maternity Early Warning Scoring System V4.1 Reviewed by: A Akkad Approved by: Maternity Governance Group: 19/05/2021 Trust Ref No: C16/2018 NB: Paper copies of this document may not be most recent version. The definitive version is held on InSite in the <u>Policies and Guidelines</u> Library

۲

		ed to: Date:	
	INITIAL PLAN FOLLOWING FIF	RST MEOWS TOTAL	
	Name: Hospital No. Ward	Site	
	Date: Time: Total	MEOWS	
	Plan: Frequency of Obs.:		
	Signature: Print	Name:	
	SUMMARY OF P	PLANS	
	Date: Time: Time: Total	I MEOWS	
	Plan:		
	Signature: Print	Name:	
		I MEOWS	
S M E N T	Plan:		
	Signature: Print	Name:	
ES	Date: Time: Time: Total	I MEOWS	
A S S	Plan:		
M E O W S	Signature: Print	Name:	
Ξ		I MEOWS	
	Plan:		
	Signature: Print	Name:	
	Date: Time: Time: Total	MEOWS	
	Signature: Print	Name:	
	Date: Time: Time: Total	I MEOWS	
	Plan:		
	Signature: Print	Name:	
	Any woman with a score of 4 or 5 o MUST go on the H		
	8 ONJAltMEOWSAssessmentChart51811777.indd 8	03.00	5/2018 14:34
	DN)Alt/MEOWSAssessmentChart51811777.indd 8	02/05	<i>*2010</i> 14:34

Title: Maternity Early Warning Scoring System V4.1 Reviewed by: A Akkad Approved by: Maternity Governance Group: 19/05/2021 Trust Ref No: C16/2018 NB: Paper copies of this document may not be most recent version. The definitive version is held on InSite in the <u>Policies and Guidelines</u> Library

Page 12 of 12