Reducing risk for emergency admissions in Maternity
Standardised approach to maternity triage BSOTs

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Emergency Admissions in Maternity

- Women attending with unscheduled pregnancy related visits to maternity departments

Multiple referral options
Open access
24/7
Maternity Emergency departments
Emergency Admissions in Maternity

- Confidential Enquiry recommendation to see these women away from Delivery suite
  - Local arrangements – Triage departments, MAU, DAU.
  - Mixture of women seen in same area
  - Different pattern of midwifery practice
  - No recognised standard for operational structure of these departments, referral pathways, staffing or systems for review.
Triage systems

• A clear process of **prioritising the order** in which patients receive medical attention on arrival to department

• To ensure the patient receives the level and quality of care appropriate to their clinical needs

• Treatment guided **according to clinical need**

• Maximise effective use of available resources

• We have probably been informally ‘triage-ing’ women but with variable effectiveness
Maternity Triage

- The physiological changes associated with pregnancy mean the general parameters of standard triage tools may not be applicable.

- Underlying good health of the maternity population may mask the severity of maternal illness unless a specific assessment is undertaken.

- There is also no means of assessing the condition of the unborn baby in existing triage tools.
Maternity Triage

- Confidential Enquiry reports into maternal deaths identified failures to correctly identify and treat pregnant women, as has local incident review.
- Currently no published system in obstetrics.
- NICE Guideline for Safe Midwifery Staffing has defined delay of 30 minutes or more between presentation and triage a ‘red flag’.
- American College of Obstetricians and Gynaecologists recently advocated the use of validated triage systems for maternity.
Maternity Triage BSOTs

Developed by MDT led by Nina Johns & Prof Sara Kenyon (with support of NIHR CLAHRC team)

It involves an immediate assessment being undertaken to determine the urgency with which women will need to be seen

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1. standardised
2. symptom specific
3. time sensitive
Maternity Triage BSOTs

Attend
- Telephone assessment / advice
- Attends Triage

Assess
- Standardised initial assessment within 15 minutes of arrival
- Use of specific algorithm to assess & define clinical priority

complete
- Standardised immediate care including appropriate level of review, timing of review and bespoke documentation
Initial assessment

- Discussion of reason/s for attending
- Observation of general appearance
- MEWS
- Abdominal palpation
- Perception of pain
- Level of urgency to be seen using the symptom algorithms
- Plan of immediate care
Abdominal Pain

This is not an exhaustive list of presenting symptoms and clinical judgement is required.

### Immediate (within 15 minutes)

1. Transfer immediately to DS, HDU or Obstetric Theatre
2. Information made available
3. Achieve respiratory saturation >92%
4. Obtain blood for FBC
5. If bleeding internal, take blood for GBS and if fetal heart rate profonde
6. Obtain blood sample for urinalysis +/- MSU
7. Inform ST1-2 Obstetric Medical Staff of admission and to attend
8. Keep nil by mouth and repeat baseline observations every 15 minutes

### Within 1 hour

1. Can return to waiting room to await more detailed assessment unless medical assessment or room available
2. Complete and categorise CTG (if gestation >24/40)
3. Obtain urine sample for urinalysis +/- MSU
4. Inform ST1-2 Obstetric Medical Staff of admission and to attend
5. Repeat baseline observations after 1 hour unless altered MEWS, in which case in 30 minutes

### Within 4 hours

1. Assess midwife
2. Complete and categorise CTG (if gestation >24/40)
3. Obtain urine sample for urinalysis +/- MSU
4. If after examination & discussion, pain identified as musculoskeletal/pelvic girdle pain, can offer discharge home (at any gestation) & written advice with appropriate follow-up with CMW or ANC
5. If not appropriate for MW to discharge then inform ST1-2 of admission and to attend

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**PLEASE ENTER ALL OBSERVATIONS ONTO MEWS & DOCUMENT ADDITIONAL NOTES ON NEXT PAGE**

**ORANGE** (15 mins)

- Complete and categorise CTG (if gestation >24/40)
- Consider IV access
- Obtain blood for FBC
- If bleeding, take blood for GBS and if fetal heart rate profonde
- Consider bloods for PT/TT/INR/glucose/cXR
- Obtain urine sample for urinalysis +/- MSU
- Inform ST1-2 Obstetric Medical Staff of admission and to attend
- Keep nil by mouth and repeat baseline observations every 15 minutes

**YELLOW** (1 hour)

- Can return to waiting room to await more detailed assessment unless medical assessment or room available
- Complete and categorise CTG (if gestation >24/40)
- Obtain urine sample for urinalysis +/- MSU
- Inform ST1-2 Obstetric Medical Staff of admission and to attend
- Repeat baseline observations after 1 hour unless altered MEWS, in which case in 30 minutes

**GREEN** (4 hours)

- Can return to waiting room to await more detailed assessment unless medical assessment or room available
- Complete and categorise CTG (if gestation >24/40)
- Obtain urine sample for urinalysis +/- MSU
- If after examination & discussion, pain identified as musculoskeletal/pelvic girdle pain, can offer discharge home (at any gestation) & written advice with appropriate follow-up with CMW or ANC
- If not appropriate for MW to discharge then inform ST1-2 of admission and to attend

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**Assessing midwife**

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<tr>
<th>Name of midwife bled</th>
<th>Date and time bled</th>
<th>Responded (Y/N)</th>
<th>Can attend (Y/N)</th>
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Maternity Triage BSOTs

BENEFITS

• standard initial assessment of all women & their babies
• Facilitates clinical prioritisation
• patient receives the level and quality of care appropriate to their clinical needs
• Maximise effective use of available resources
• Allows midwives and medical staff to know exactly who is in the department and their level of clinical need
• Allows more effective communication and handover using shared language
Maternity Triage BSOTs
- evaluation

This carried out with NIHR CLAHRC West Midlands Maternity Theme (Dr Sara Kenyon), has involved several different sub studies:

• Structured audit of notes
• Inter-operator reliability study
• Focus groups and a questionnaire to assess midwives views of implementation

- initial evaluation of BSOTS

• significantly improved the numbers of women assessed within 15 minutes of arrival in triage (particularly red/amber)
• is likely to improve safety for women and babies
• the system has strong inter-rater reliability suggesting it offers a reliable method of triaging women
• All the midwives reported that BSOTS training had improved their knowledge and confidence.
Maternity Triage BSOTs - progress

- Launched in 3 other centres (teaching/DGH)
  - Recipe for success – physical space/staffing/leadership
  - Development with local MEWS/MEOWS & guidelines
  - Change in practice
  - Audit of timing of assessments
  - Outcomes to assess validity
  - Inter-operator reliability

- Redesign of bespoke training
BSOTS has excellent inter-operator reliability and appears to be a reliable way of assessing the clinical priority of women which is likely to improve the safety of women and babies attending triage.
Maternity Triage BSOTs

National consensus meeting held & agreed that no further evaluation was required and that the team would explore the next phases of roll-out, with increased safety for both mothers and babies as well as the clinicians, being the driver.

There were four potential options that the team would pursue- roll out:

• National Maternal and Neonatal Health Safety Collaborative NHSI
• West Midlands Clinical Networks collaboration
• Working towards endorsement with RCOG and RCM.
• Consideration of including BSOTS in the national PROMPT training.