TRAINING MANUAL:

FOR MIDWIVES AND OBSTETRICIANS

JUNE 2018
Contents

Chapter 1 – Introduction .................................................................................................................. 1
  Purpose of triage systems .................................................................................................................. 1
  History of triage ................................................................................................................................. 1
  Why Maternity Triage is needed ....................................................................................................... 2
  Maternity Triage Departments ......................................................................................................... 2
  Triage in the maternity care setting .................................................................................................. 3

Chapter 2 – Reliability and Validity of Triage Systems .................................................................... 4
  Emergency Triage Scales .................................................................................................................... 4
  The Triage Role .................................................................................................................................. 4

Chapter 3 – Communication .......................................................................................................... 6
  Communication and the assessment of pain ....................................................................................... 9
  Communication and handover .......................................................................................................... 10
  Handover between colleagues ......................................................................................................... 10
  Handover communication with the woman ....................................................................................... 11

Chapter 4 – Birmingham Symptom specific Obstetric Triage System (BSOTS) ............................. 12
  The Birmingham Symptom specific Obstetric Triage system (BSOTS) ......................................... 12
  Flowchart of triage .......................................................................................................................... 14
  How does this work in practice? ....................................................................................................... 15
  The midwives in Triage .................................................................................................................... 15
  The Triage Room .............................................................................................................................. 15
  The Initial Triage Assessment .......................................................................................................... 15

Chapter 5 – Paperwork ................................................................................................................... 19
  Telephone Triage Assessment card ................................................................................................. 20
  Antenatal Triage Assessment Card ................................................................................................ 23
  MEWS chart (Part One) ................................................................................................................... 25
  BSOTS Algorithm ............................................................................................................................. 29
  Subsequent immediate care ............................................................................................................. 31
  Further assessment .......................................................................................................................... 33
  Additional information and SBAR ................................................................................................... 35

Chapter 6 – Practice Scenarios ....................................................................................................... 37

Chapter 7 – Evaluation of BSOTS .................................................................................................. 50
  Evaluation of the introduction of the BSOTs system at BWCNFT .................................................. 50
  Structured audit of notes .................................................................................................................. 50
Inter-rater reliability study ........................................................................................................... 51
Focus groups and a questionnaire to assess midwives’ views of implementation .................. 52
Questionnaire to assess midwives views of the bespoke training ........................................... 53
National Survey of practice in 2015 .......................................................................................... 53
Further roll-out and evaluation of BSOTS 2015-2016................................................................. 53
Results ......................................................................................................................................... 54
National Roll-out ........................................................................................................................ 55
The additional advantages/ benefits of using BSOTS within maternity triage .................... 55
Conclusion ..................................................................................................................................... 55
Appendix 1 – Algorithms ............................................................................................................ 56
  Abdominal Pain ........................................................................................................................ 57
  Antenatal Bleeding .................................................................................................................... 58
  Hypertension .............................................................................................................................. 59
  Postnatal ...................................................................................................................................... 60
  (P)PROM – Ruptured Membranes ............................................................................................ 61
  Reduced Fetal Movements ......................................................................................................... 62
  Suspected Labour ....................................................................................................................... 63
  Unwell or Other ........................................................................................................................ 64
Acknowledgments ....................................................................................................................... 65
References ..................................................................................................................................... 66
Chapter 1 – Introduction

Key Learning Objectives

- To understand the reasons for triage systems in acute and maternity care
- To introduce and define the Birmingham Symptom specific Triage system

The purpose of this manual is to provide training to support implementation of the Birmingham Symptom specific Obstetric Triage System (BSOTS) for maternity triage. The objective of the training is to enable clinical staff to understand what the system is; understand how the triage process works and are then able to work in this way. The manual will confirm understanding and uses discussion of scenarios to promote accurate decision making. It is designed to provide a consistent approach to the educational preparation of clinicians (particularly midwives) for the triage role, using the standardised BSOTs method.

The purposes of this chapter are to:

a) Describe the aims and purpose of triage systems in the context of acute health care
b) Outline the history of triage in Emergency Medicine and within Maternity care
c) Provide an outline of BSOTS

Purpose of triage systems

Triage systems are designed to ensure the patient receives the level and quality of care appropriate to their clinical needs and the resources available are used most effectively. It involves a process of prioritising the order in which patients receive medical attention on arrival to the Emergency Department, guiding treatment according to clinical need.

Triage is usually undertaken by a nurse and involves identification of the presenting problem; undertaking a standardised physiological assessment including vital signs and results in a clinical priority being assigned based on predictors of urgency of treatment and on-going care.

History of triage

Standardised systems for triage in Emergency Medicine were developed in Australia in Accident and Emergency Departments over 20 years ago. The use of the Australian Triage System has been routine practice across Australia since 2002, with the introduction of the Emergency Triage Education Kit.

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The Australian Triage System (ATS) formed the basis for the Manchester Triage System (MTS) which began in the UK in 1997. This was jointly developed by the Royal College of Nursing Accident and Emergency Association and the British Association for Accident and Emergency Medicine and differs from the other systems in that it is an algorithm-based approach to decision-making.

The MTS involves the use of 55 separate algorithms that require the decision-maker/triage nurse to select the appropriate flow chart depending on the presenting problem. The triage nurse then needs to gather and analyse information according to threat to life, severity of pain, presence and level of haemorrhage, consciousness level, temperature, and the duration of signs and symptoms. The algorithm uses this information to define the resulting level of urgency as a five level categorical scale which determines the maximum time that should pass before further treatment is required. The system aims to standardise assessment and increase reproducibility and validity, and has been mandated for use in UK Accident and Emergency Departments.

**Why Maternity Triage is needed**

The physiological changes associated with pregnancy mean the general parameters of standard triage tools may not be applicable, as pregnancy is associated with an increased resting heart rate, lower blood pressure and increased respiratory rate in the mother. This together with the underlying good health of the maternity population may mask the severity of maternal illness unless a specific assessment is undertaken by appropriately trained health care professionals. There is also no means of assessing the condition of the unborn baby in existing Emergency medicine triage tools.

There is no standardised triage system within maternity care to identify, prioritise and treat the women who attend with unscheduled pregnancy related problems; despite recent UK Confidential Enquiries into maternal death recognising the need for such systems to be in place. In addition, local incident reviews repeatedly identify delays and lack of appropriate prioritisation as a contributory factor to poor care.

The need for a systematic approach to maternity triage has been highlighted recently by NICE Guideline for Safe Midwifery Staffing for maternity settings, which defined a delay of 30 minutes or more between presentation and triage as a ‘red flag event’ to enable monitoring of appropriate staffing levels within maternity. The need to develop guidelines for triage of pregnant women has been further emphasised by the American College of Obstetricians and Gynaecologists, which advocates the use of standardised triage tools to improve quality and efficiency.

**Maternity Triage Departments**

In recent history, all women attending the maternity units other than for scheduled antenatal clinic visits were seen and reviewed on Delivery suites and labour wards. Previous Confidential Enquires identified that high numbers of women were attending with problems that were pregnancy related but not labour and that their attendance to delivery suite diverted midwifery staff and clinical care from women in active labour. The national recommendation that women that attended with unscheduled pregnancy related problems should be seen in areas away from delivery suite was generally accepted throughout the UK.
However, maternity units were not designed with additional physical space and soon “Triage” departments evolved in already established Day Assessment units, or induction of labour bays or squeezed into small cupboard areas adjacent to delivery suite.

The triage departments within maternity care have developed without standardised processes or pathways and continue to expand in workload without appropriate organisational and clinical systems. This means that women may/tend to wait to be seen in the order in which they arrive (often with informal triaging based on obvious need) without clinical assessment until they are seen—this is neither safe nor effective.

**Triage in the maternity care setting**

Triage of pregnant women has been identified as being less reliable\(^9,10\) and this area has been highlighted as requiring development of specific guidelines and education packages\(^11\). Within the Australian setting triage algorithms for pre-eclampsia and antepartum haemorrhage for use by midwives have recently been evaluated and showed marked improvements in consistency of assessment and documentation\(^12\). Within the UK setting there is limited evidence of such a system being implemented and evaluated\(^13\).

### Discussion Points 1

<table>
<thead>
<tr>
<th>1)</th>
<th>Is there a need for a standardised triage system within your unit?</th>
</tr>
</thead>
<tbody>
<tr>
<td>o</td>
<td>What type of system do you have now?</td>
</tr>
<tr>
<td>o</td>
<td>How long do women currently wait in your triage department?</td>
</tr>
<tr>
<td>o</td>
<td>How safe do you feel your current triage department is?</td>
</tr>
</tbody>
</table>

2) Can you think of cases where standardised triage and prioritisation may have made a difference to outcomes?
Chapter 2 – Reliability and Validity of Triage Systems

Emergency Triage Scales
The features of a robust triage system can be evaluated according to the following four criteria:

φ Utility: The scale must be relatively easy to understand and simple to apply by clinicians

φ Validity: The scale should measure what it is designed to measure; that is, it should measure clinical urgency as opposed to severity or complexity of illness

φ Reliability: The application of the scale should be independent of the clinician performing the role, that is, it should be consistent. ‘Inter-rater reliability’ is the term used for the statistical measure of agreement that is achieved by two or more raters using the same scale

φ Safety: Triage decisions must be correspond with objective clinical criteria and must optimize time to medical intervention

The Triage Role
Triage decision making is an inherently complex and dynamic process, with decisions made within a time sensitive environment with limited information. When a triage category is selected there are three possible outcomes;

‘Under-triage’ in which the woman receives a triage category lower than her true level of urgency. This has the potential to result in a prolonged waiting time to further assessment and potentially risks adverse outcome.

‘Correct triage’ in which the correct triage category is given and the woman receives care appropriate to their level of urgency and the risk of adverse outcome is limited.

‘Over-triage’ in which the woman receives a triage category higher than her true level of urgency. This has the potential to shorten her waiting time to further assessment; however it potentially risks adverse outcome in other women waiting to be seen because they have to wait longer.

The ability of any triage system to achieve its aims is based on the assumption that decision making is consistent over time and among clinicians who use the scale. The chances of successful implementation of this programme will in part depend on the preparation of clinicians and their understanding of the new system.
## Discussion Points 2

1) Describe what ‘over-triage’ and ‘under-triage’ are and what they might mean for women

2) What factors are likely to contribute to each?

3) How might these be minimised in practice?
Chapter 3 – Communication

Key Learning Objectives

- To understand the importance of communication in the triage process
- To appreciate the factors within a triage environment which may affect communication

The purpose of this chapter is to emphasise the importance of communication to improve the effectiveness and accuracy of the triage process.

Communication in triage occurs between:

- The midwife and the woman receiving care
- The midwife and the woman’s family members
- The midwife and other colleagues (midwives and doctors working in triage and other clinical areas)

Triage is often an area of high activity, with women (and their children or family members) lined up at the desk, worried by having to attend and potentially seriously unwell. Triage departments generally do not provide scheduled appointments and arrivals tend to concentrate in peaks of activity, usually late afternoon and evenings. There can be children crying, women on trolleys, the telephone ringing and doctors requesting notes and test results (on a quiet day!).

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The midwives in triage are the people who link this all together and they must be able to communicate effectively with all concerned. They are also usually the first person that the woman will meet and effectiveness of their communication will shape the entire care episode. Being able to identify the potential barriers to good communication is an essential skill for the triage midwife.

Communication is a process of sending and receiving messages between individuals. However, the woman’s ability to both ‘send’ and ‘receive’ clear messages may be influenced by pain, anxiety, the environment, and how the midwife approaches them and the ability of the midwife to actively listen.

Factors that may influence communication, that the team should be aware of include:

- Physical environment
- Language use
- Cultural diversity
- Expectations and assumptions
- Time constraints
- Non-verbal behaviours
- Nature of health concern
- Emotions

Challenging communication behaviour is often the result of people expressing their unmet basic human needs. Understanding what underpins such behaviours can help the triage midwife to respond to the issue behind the behaviour, rather than the behaviour itself (Table 1).
Table 1: Identifying and dealing with the four basic human needs

<table>
<thead>
<tr>
<th>Basic human need</th>
<th>Common signals the needs is not being met</th>
<th>Suggested strategies to fulfil this need</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>To be understood</strong></td>
<td>- Repeating the same message</td>
<td>Separate emotions from contents</td>
</tr>
<tr>
<td></td>
<td>- Speaking slowly and/or loudly</td>
<td>Ask questions, shifting the focus from</td>
</tr>
<tr>
<td></td>
<td>- Getting angry</td>
<td>emotion to exploring the health</td>
</tr>
<tr>
<td></td>
<td>- Bringing a support person to</td>
<td>concern</td>
</tr>
<tr>
<td></td>
<td>speak for them</td>
<td>Acknowledge their feelings; empathise</td>
</tr>
<tr>
<td></td>
<td></td>
<td>with their concerns</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Reflect back your understanding;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>inform them of what will happen and</td>
</tr>
<tr>
<td></td>
<td></td>
<td>why</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Do not take expressions of anger</td>
</tr>
<tr>
<td></td>
<td></td>
<td>personally</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Check your own reactions</td>
</tr>
<tr>
<td><strong>To feel welcome</strong></td>
<td>- Looking around before entering</td>
<td>Provide a warm and friendly welcome</td>
</tr>
<tr>
<td></td>
<td>- Looking lost or unsure.</td>
<td>Use appropriate language</td>
</tr>
<tr>
<td></td>
<td></td>
<td>At the end of the triage encounter,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>keep communication lines open</td>
</tr>
<tr>
<td><strong>To feel important – one’s self-concept</strong></td>
<td>- Drawing attention to themselves</td>
<td>Call the person by their name;</td>
</tr>
<tr>
<td></td>
<td>- Getting angry</td>
<td>acknowledge their concerns; tune into</td>
</tr>
<tr>
<td></td>
<td>- Appearing helpless</td>
<td>their individual needs</td>
</tr>
<tr>
<td></td>
<td>- Loss of control</td>
<td>Allow anger to diffuse – listen; say</td>
</tr>
<tr>
<td></td>
<td></td>
<td>nothing; allow the person to release</td>
</tr>
<tr>
<td></td>
<td></td>
<td>their emotions</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Try not to react to the emotion</td>
</tr>
<tr>
<td><strong>Need for comfort – psychological and</strong></td>
<td>- Appearing ill at ease, nervous or</td>
<td>Explain the procedures carefully and</td>
</tr>
<tr>
<td><strong>physical</strong></td>
<td>unsure</td>
<td>calmly; reassure</td>
</tr>
<tr>
<td></td>
<td>- Requesting assistance or help</td>
<td></td>
</tr>
</tbody>
</table>
Communication and the assessment of pain

Effective communication is essential for the assessment and description of pain. As part of the initial triage assessment, it is necessary to assess whether the woman is experiencing any pain and the severity and quality of that pain.

The scale used in the BSOTs bundle for the assessment of pain is:

- None
- Mild
- Moderate
- Severe

It is important to consider the following when assessing pain in Triage:

- The woman’s previous experience of pain (previous labour/ previous health) will influence her perception of severity of pain
- The anxiety that this episode is causing her
- The woman’s culture, which may mean she responds, or expresses pain, differently
- Your own perceptions of her pain; as midwives and obstetricians are exposed to pain regularly and may underestimate the pain a woman is experiencing
- Any effect of the pain on the woman’s normal function (Table 2)
Table 2: Effect of pain on women’s normal function

<table>
<thead>
<tr>
<th>Function</th>
<th>Possible pain assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>- She is able to carry out normal activities</td>
<td>None</td>
</tr>
<tr>
<td>- She has a few problems carrying out normal activities</td>
<td>Mild</td>
</tr>
<tr>
<td>- She can do most things</td>
<td>Moderate</td>
</tr>
<tr>
<td>- The pain is causing her difficulties</td>
<td>Severe</td>
</tr>
<tr>
<td>- The pain stops her doing some things</td>
<td></td>
</tr>
<tr>
<td>- The pain is disabling</td>
<td></td>
</tr>
<tr>
<td>- The pain completely stops her normal activities</td>
<td></td>
</tr>
<tr>
<td>- She has no control due to overwhelming pain</td>
<td></td>
</tr>
</tbody>
</table>

Explanation of the process of triage and the use of a system to prioritise care according to clinical need is also essential to inform the women and their families and manage expectations within the department.

Discussion Points 4

1) What factors may affect a woman’s assessment of her pain?
2) What factors may affect your assessment of the woman’s pain?
3) Discuss an example of where a woman’s description of her pain does not match your assessment.

Communication and handover

Handover between colleagues

Handover and transfer of care should be from one health care professional (midwife or medical staff) to another directly, ideally in person, but if this is not possible, by telephone. Effective communication is central to promoting patient safety. A structured and consistent handover and transfer of care between staff can be achieved using the SBAR tool that covers details on the woman’s Situation, Background, Assessment, and Recommendations.
**SBAR:**
Information given during handover and transfer of care should be based on the SBAR tool

| S | Situation – What is the woman’s gestation, gravida, parity, and reason for admission? |
| B | Background – What is the woman’s obstetric history, medical history, social history (e.g. child protection), risk status? |
| A | Assessment – What assessments of the woman have you made? (MEOWS, CTG, Blood/urine, fluid balance, concerns regarding mental/obstetric health). What is her category of urgency? |
| R | Recommendations – What do you recommend in terms of tests, treatment, escalation or discharge? In what timeframe does this need to happen? |

**Handover communication with the woman**
The triage midwife should:

- Communicate what is happening next, and who will see them next
- Re-assure that their information will be passed on to the next care provider

The assessment midwife should:

- Re-assure that their information has been passed on from their previous provider
- Consider re-capping the history to reassure the woman that you have the appropriate information
Chapter 4 – Birmingham Symptom specific Obstetric Triage System (BSOTS)

The Birmingham Symptom specific Obstetric Triage system (BSOTS) was co-produced by clinicians (obstetricians and midwives) and researchers at Birmingham Women’s and Children’s NHS Foundation Trust and the University of Birmingham. The system is based on the established triage systems used in Emergency medicine and uses a uniform assessment and clinical prioritisation of the common conditions that women present with in maternity triage.

An initial standardised assessment of each woman identifies her presenting problem and key clinical indicators (such as maternal BP, heart rate, temperature and respirations and fetal heart rate) and their parameters (guided by those used by the MTS) from this initial assessment (triage) are used to define the level of clinical urgency using a 4-tier scale.

Guidelines were also developed for immediate subsequent care and investigations using the available evidence, and consensus statements with the agreement of the local obstetric and anaesthetic consultants and experienced midwives.

The BSOTS bundle includes:

- Completion of a standard clinical triage assessment by a midwife within 15 minutes of the woman’s attendance. This includes taking a brief maternal history, completion of baseline maternal observations (temperature, pulse, respirations and blood pressure), assessment of pain levels, abdominal palpation and auscultation of the fetal heart rate (if the woman is antenatal) and should take about five minutes to undertake.
• This assessment is used to define a category of clinical urgency using symptom specific algorithms, which guides timing of subsequent assessment and immediate care (by an obstetrician if required).

<table>
<thead>
<tr>
<th>Abdominal pain</th>
<th>Antenatal bleeding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hypertension</td>
<td>Postnatal</td>
</tr>
<tr>
<td>Reduced fetal movements</td>
<td>Ruptured membranes</td>
</tr>
<tr>
<td>Suspected labour</td>
<td>Unwell/other</td>
</tr>
</tbody>
</table>

• Standardised symptom-specific algorithms are used for allocation of clinical priority and the immediate care and further investigations of the eight commonest reasons for attendance.

• Bespoke documentation has also been developed to support and standardise completion of the clinical tasks required and aid decision making.
Flowchart of triage

Illustrated below is the proposed flow for women attending Maternity triage. Most attendances are preceded with either a self-referring phone call or referral from another healthcare worker such as a community midwife or GP. The women are then advised to attend Triage, ideally with a recommended timeframe. Once she has presented to the department, the triage process is started.

Define appropriate symptom specific Triage Assessment Card (TAC) to be used for the assessment

Standardised Initial Triage Assessment – within 15 minutes of arrival

Define level of urgency using symptom specific algorithm
(complete immediate care as per algorithm)

Red or Orange
Immediate/urgent care

Yellow or Green
Await further assessment in waiting room

Central to the development of the symptom specific algorithms was the definition of maximum treatment thresholds: timeframes within which women were to be seen based on their level of urgency. These timeframes determine the recommended interval between initial triage and on-going assessment and care. Alongside the time-limited thresholds are the performance indicators setting the benchmark of achievement to maximise safety (see Table 3). These defined time frames can also be used for local audit and local assessment and allocation of midwifery and medical staff within the triage department.

Table 3: Recommended BSOTS category and maximum time to treatment/next assessment

<table>
<thead>
<tr>
<th>BSOTS category</th>
<th>Maximum time until treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Red</td>
<td>Immediate</td>
</tr>
<tr>
<td>Orange</td>
<td>15 minutes</td>
</tr>
<tr>
<td>Yellow</td>
<td>1 hour</td>
</tr>
<tr>
<td>Green</td>
<td>4 hours</td>
</tr>
</tbody>
</table>
How does this work in practice?

The midwives in Triage
Local midwifery and medical staffing numbers and skill mix will depend on how busy the triage department is and may vary with different shift times throughout the day. The priority must be to undertake the initial triage within 15 minutes of arrival, and numbers of staff will therefore depend on the numbers of women that attend.

In a large and busy department it is recommended that one midwife will be the midwife responsible for the initial triage (and will help where she can otherwise) and another midwife will undertake the subsequent care and investigations. In smaller departments, one midwife can undertake both roles but will need to remain responsive to new arrivals and interrupt the ongoing care of women to triage new arrivals.

This is a different way of working, as the roles are divided between two midwives: one will undertake the initial triage and the other will carry out subsequent care and investigations. This means that a single midwife will not care for the woman throughout the whole care episode, but that the woman will see two different midwives for the different parts of the triage and care process. This is done to make sure women are prioritised based on clinical need and to improve safety.

Following their initial triage assessment, women will be seen in the order of their clinical need and should be informed when they are likely to be seen.

The Triage Room
The initial triage assessment to determine the urgency with which women will need to be seen will be done in the Triage Room. Ideally there should be a single identified triage room where only this takes place, although that room may change/ rotate if women cannot be moved once they have been assessed.

The Initial Triage Assessment
Triage assessment should be undertaken by a midwife in the designated triage room. The midwife will assess the woman’s condition using a standard assessment. This should take approximately 5-10 minutes.

Standardised bespoke documentation has been developed for each of the 8 presenting symptoms and contains initial assessment and immediate care and investigations. The initial assessment will allocate a level of urgency using the appropriate symptom specific algorithm (also included in the bespoke documentation) and this will define which further assessment and investigations should take place.

This initial triage assessment will include:

- Discussion of reasons for attending (and selection of appropriate documentation)
- Observing the woman’s general appearance
φ MEWS assessment (temperature, pulse, blood pressure, respirations, oxygen saturation (if applicable), urine output, neurological response, amniotic fluid loss (if applicable), lochia (if applicable)
φ Abdominal palpation and auscultation of the fetal heart
φ Woman’s perception of her pain
φ Level of urgency to prioritise care
φ Plan of immediate care

The standard follow-on care and investigations (depending on primary reason for attending and will be symptom specific) will be done in a timely manner by a midwife in the triage department. This will mean that the women attending will be seen and assessed quickly on entering the department by midwife identified on that shift as the dedicated initial assessor (“the Triaging Midwife”).

Women assigned a category of urgency requiring emergency or urgent care (red or orange) should be kept in the clinical area. Women assigned a less urgent category (yellow or green) can return to the waiting area to await further assessment as defined by their category.

It is important that clinical staff can exercise their clinical judgement when deciding on the women’s category of urgency, but this should only be used to increase the category of urgency. Clinical indicators (such as maternal blood pressure or pulse) should not be overridden.

Telephone assessment (should that be required) can also be undertaken using the standardised Telephone Triage Assessment proforma (see paperwork). This example directs the documentation of necessary information and the advice given to the woman, it doesn’t attempt to prioritise the woman’s clinical urgency over the phone.
Figure 1: Diagrammatic presentation of the pathway through the triage department

**ARRIVAL**

- **WOMAN**
- **RECEPTIONIST**
  - Time of arrival documented
  - Woman booked in
  - Medical notes requested
  - Whiteboard updated with:
    - Arrival time
    - Reason for attending

**TRIAGE ASSESSMENT**

- **TRIAGE MIDWIFE**
  - Confirm reason for attending and use appropriate Triage Assessment Card (TAC)
  - Document start time of triage assessment
  - Ascertain relevant symptoms
  - Ascertain relevant details concerning current pregnancy, medical/social history
  - Document current medication and allergies

**CARRY OUT MATERNAL OBSERVATIONS:**
- Basic clinical observations: blood pressure, pulse, respiratory rate, and temperature.
  - Document on the Maternity Early Warning System (MEWS). Urinalysis and oxygen saturations if applicable
- Pain assessment
- Abdominal palpation and measuring (if applicable)

**CARRY OUT FETAL OBSERVATIONS (unless postnatal):**
- Ascertain normal pattern of fetal movements
- Listen to fetal heart rate for 1 minute with Pinard or Doppler
- Ascertain presence of risk factors in case of reduced fetal movements

- Use algorithm to allocate clinical urgency

**FOLLOW UP CARE**

- **ASSESSMENT MIDWIFE**
- **MEDICAL STAFF**

- **WAITING AREA**
  - GREEN: Max 4 hours
  - YELLOW: Max 1 hour
  - ORANGE: Max 15 mins
  - RED: No wait

- **TREATMENT ROOM**
Chapter 5 – Paperwork

The following examples of the BSOTS paperwork will be illustrated using antenatal bleeding as an example.
Telephone Triage Assessment card

If a woman phones the department, prior to arrival at Triage, telephone assessment can be undertaken using the standardised Telephone Triage Assessment proforma. The example shown directs the documentation of necessary information and the advice given to the woman, it does not attempt to prioritise the woman’s clinical urgency over the phone.
## TELEPHONE TRIAGE ASSESSMENT CARD

### 1st Call

<table>
<thead>
<tr>
<th>Telephone call taken by</th>
<th>Print Name</th>
<th>PIN</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Signature</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Date</td>
<td>Time</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Woman’s name</th>
<th>Woman’s Telephone number</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Registration no. or DOB</th>
<th>Lead Professional</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Gravida</th>
<th>Parity</th>
<th>EDD or Date of delivery</th>
<th>D D - M M - Y Y</th>
<th>Gestation</th>
<th>Days PN</th>
</tr>
</thead>
</table>

### Primary reason for calling Triage

- Abdominal pain
- Antenatal bleeding
- Hypertension
- Postnatal concern
- Ruptured membranes
- Suspected labour
- Unwell/other
- Reduced fetal movements

### Relevant medical & obstetric history

### Current pregnancy

### Additional information (including social & lifestyle history)

### Advice given including time-frame if you ask woman to attend triage

### Plan (please circle)

<table>
<thead>
<tr>
<th>Plan</th>
<th>Phone ambulance; attend triage immediately</th>
<th>Attend triage (use own transport)</th>
<th>Referred to INT MW</th>
<th>Referred to GP</th>
<th>Advised with no further action</th>
</tr>
</thead>
</table>

### Actions if woman advised to attend

<table>
<thead>
<tr>
<th>Actions if woman advised to attend</th>
<th>Timeframe for woman to attend</th>
<th>Inform LW and medics if urgent attendance</th>
<th>Request hospital notes (ward clerk)</th>
<th>Inform ward clerk of urgency &amp; to alert you when notes are received</th>
</tr>
</thead>
</table>

### Specific early labour advice

<table>
<thead>
<tr>
<th>Specific early labour advice</th>
<th>To call back if:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mobilise</td>
<td>Any changes</td>
</tr>
<tr>
<td>Rest</td>
<td>PV Bleed</td>
</tr>
<tr>
<td>Regular snacks</td>
<td>Change in FMs</td>
</tr>
<tr>
<td>Paracetamol</td>
<td>SRROM</td>
</tr>
<tr>
<td>Regular fluids</td>
<td>Increase in strength and/or frequency of contractions</td>
</tr>
<tr>
<td>Warm bath</td>
<td>Worried about anything</td>
</tr>
</tbody>
</table>

---

**PLEASE ATTACH TO HOSPITAL NOTES AND FILE ON ADMISSION**
### TELEDHEPHONE TRIAGE ASSESSMENT CARD

#### 2nd Call

<table>
<thead>
<tr>
<th>Primary reason for calling Triage</th>
<th>Abdominal pain</th>
<th>Antenatal bleeding</th>
<th>Hypertension</th>
</tr>
</thead>
<tbody>
<tr>
<td>Postnatal concern</td>
<td></td>
<td>Ruptured membranes</td>
<td>Suspected labour</td>
</tr>
<tr>
<td>Unwell/other</td>
<td></td>
<td></td>
<td>Reduced fetal movements</td>
</tr>
<tr>
<td>Relevant medical &amp; obstetric history</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current pregnancy</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Changes since last call</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Advice given including time-frame if asked to attend triage</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plan (please circle)</td>
<td>Phone ambulance; attend triage immediately</td>
<td>Attend triage (use own transport)</td>
<td>Referred to INT MW</td>
</tr>
<tr>
<td>Actions if woman advised to attend</td>
<td>Timeframe for woman to attend</td>
<td>Inform LW and medics if urgent attendance</td>
<td>Request hospital notes (ward clerk)</td>
</tr>
</tbody>
</table>

**Print Name & PIN**

**Signature**

**Date & time call completed**

---

### TELEDHEPHONE TRIAGE ASSESSMENT CARD

#### 3rd Call

<table>
<thead>
<tr>
<th>Primary reason for calling Triage</th>
<th>Abdominal pain</th>
<th>Antenatal bleeding</th>
<th>Hypertension</th>
</tr>
</thead>
<tbody>
<tr>
<td>Postnatal concern</td>
<td></td>
<td>Ruptured membranes</td>
<td>Suspected labour</td>
</tr>
<tr>
<td>Unwell/other</td>
<td></td>
<td></td>
<td>Reduced fetal movements</td>
</tr>
<tr>
<td>Relevant medical &amp; obstetric history</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current pregnancy</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Changes since last call</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Advice given including time-frame if asked to attend triage</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plan (please circle)</td>
<td>Phone ambulance; attend triage immediately</td>
<td>Attend triage (use own transport)</td>
<td>Referred to INT MW</td>
</tr>
<tr>
<td>Actions if woman advised to attend</td>
<td>Timeframe for woman to attend</td>
<td>Inform LW and medics if urgent attendance</td>
<td>Request hospital notes (ward clerk)</td>
</tr>
</tbody>
</table>

**Print Name & PIN**

**Signature**

**Date & time call completed**
Antenatal Triage Assessment Card

This provides a concise summary of the triage assessment and includes

- Maternal name, DOB and Hospital number
- The date and time arrival and initial assessment in triage, together with the midwives name and PIN
- The women’s gestation, gravity/parity and blood group
- A summary of symptoms on arrival, relevant medical, obstetric, social and lifestyle history, together with current pregnancy, medications and allergies
- Assessment of the woman, including temperature, pulse, respirations and blood pressure (MEWS), urinalysis and pain levels
- Assessment of the fetus, including lie and presentation pattern of fetal movements and fetal heart rate
- Using the symptom specific algorithm and information from the initial triage leads to a category of urgency (red, orange, yellow, green). The category can be raised as a result of clinical judgement but may not be lowered.
- The immediate plan of care is then summarised

It is important that clinical staff can exercise their clinical judgement when deciding on the women’s category of urgency, but this should only be used to increase the category of urgency. Clinical indicators (such as maternal blood pressure or pulse) should not be overridden.
# Antenatal Triage Assessment Card for Antenatal Bleeding

**Name:**

**DOB:**

**Registration number:**

<table>
<thead>
<tr>
<th>Symptoms on arrival</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Relevant medical &amp; obstetric, social &amp; lifestyle history</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Current pregnancy</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Medication/s</th>
<th>Allergies:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Observations Entered onto Mews

<table>
<thead>
<tr>
<th>Normal pattern of fetal movements (please circle)</th>
<th>Yes/No</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Abdominal palpation</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Lie:</td>
<td>Presentation:</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Tenderness (please circle)</th>
<th>Yes/No</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fetal heart rate (Pinard or Doppler)</th>
<th>Yes/No</th>
</tr>
</thead>
<tbody>
<tr>
<td>110-160bpm - normal range (for 1 minute)</td>
<td>If abnormal, commence CTG if ≥26/40, or more (please circle)</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Pain Assessment

<table>
<thead>
<tr>
<th>Pain assessment (please circle)</th>
<th>None</th>
<th>Mild</th>
<th>Moderate</th>
<th>Severe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Green</td>
<td>Yellow</td>
<td>Orange</td>
<td>Red</td>
<td></td>
</tr>
<tr>
<td>Within 4 hours</td>
<td>Within 1 hour</td>
<td>Within 15 minutes</td>
<td>IMMEDIATELY</td>
<td></td>
</tr>
</tbody>
</table>

## Plan of Care

|  |
|  |

## Observation Details

<table>
<thead>
<tr>
<th>Arrival in Triage</th>
<th>Date</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Initial triage assessment</th>
<th>Date</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Triage midwife name</th>
<th>PIN</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Gestation</th>
<th>Gravida</th>
<th>Parity</th>
<th>Blood group</th>
</tr>
</thead>
<tbody>
<tr>
<td>/40</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
MEWS chart (Part One)

The Modified Early Warning System (MEWS) is individualised to each Trust and is designed to quickly identify abnormal physical observations and determine the degree of illness of the woman. It includes temperature, pulse, respirations, blood pressure, oxygen saturation and urinalysis and gives a score which should highlight those women who need more urgent attention. The example illustrated here is from Birmingham Women’s and Children’s NHS Foundation Trust.
<table>
<thead>
<tr>
<th>Antenatal gestation</th>
<th>Date:</th>
<th>Time:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Temp °C</td>
<td>39</td>
<td>39</td>
</tr>
<tr>
<td></td>
<td>39</td>
<td>39</td>
</tr>
<tr>
<td></td>
<td>35</td>
<td>35</td>
</tr>
<tr>
<td></td>
<td>37</td>
<td>37</td>
</tr>
<tr>
<td></td>
<td>37</td>
<td>37</td>
</tr>
<tr>
<td>Heart Rate</td>
<td>170</td>
<td>170</td>
</tr>
<tr>
<td></td>
<td>160</td>
<td>160</td>
</tr>
<tr>
<td>Systolic Blood Pressure mmHg</td>
<td>200</td>
<td>200</td>
</tr>
<tr>
<td>Diastolic Blood Pressure mmHg</td>
<td>130</td>
<td>130</td>
</tr>
<tr>
<td>Respiratory rate</td>
<td>&gt;30</td>
<td>&gt;30</td>
</tr>
<tr>
<td>Oxygen saturations</td>
<td>95-100%</td>
<td>95-100%</td>
</tr>
<tr>
<td>Oxygen concentration</td>
<td>% or l/min</td>
<td>% or l/min</td>
</tr>
<tr>
<td>Urinalysis (free text)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proteinuria (g)</td>
<td>2+</td>
<td>2+</td>
</tr>
<tr>
<td></td>
<td>2+</td>
<td>2+</td>
</tr>
<tr>
<td>Neurological response (%)</td>
<td>Alert</td>
<td>Alert</td>
</tr>
<tr>
<td>Total Yellow scores</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Red scores</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Variance</td>
<td>✓ / x</td>
<td>✓ / x</td>
</tr>
<tr>
<td>midwife is charge informed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Initials</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
MEWS chart (Part Two)
<table>
<thead>
<tr>
<th>Parameter</th>
<th>RED</th>
<th>YELLOW</th>
<th>WHITE</th>
<th>YELLOW</th>
<th>RED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temperature (°C)</td>
<td>&lt; 35</td>
<td>&lt; 36</td>
<td>36.1 - 37.5</td>
<td>37.6 - 38</td>
<td>&gt; 38</td>
</tr>
<tr>
<td>Heart rate/min</td>
<td>&lt; 40</td>
<td>40 - 59</td>
<td>60 - 100</td>
<td>101 - 119</td>
<td>&gt; 120</td>
</tr>
<tr>
<td>Systolic BP mmHg</td>
<td>&lt; 90</td>
<td>91 - 100</td>
<td>100 - 150</td>
<td>151 - 160</td>
<td>&gt; 160</td>
</tr>
<tr>
<td>Diastolic BP mmHg</td>
<td></td>
<td></td>
<td>40 - 89</td>
<td>90 - 100</td>
<td>&gt; 100</td>
</tr>
<tr>
<td>Respirations/min</td>
<td>&lt; 10</td>
<td></td>
<td>11 - 20</td>
<td>21 - 30</td>
<td>&gt; 30</td>
</tr>
<tr>
<td>Oxygen saturations</td>
<td>&lt; 95%</td>
<td></td>
<td>&gt; 95%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urine output catheter</td>
<td>&lt; 100ml/4hr</td>
<td>&lt; 50ml/2hr</td>
<td>&gt;100ml/4hr</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urine output no catheter</td>
<td>Not PU in 10 hours</td>
<td>Not PU in 8hrs bladder not palpable</td>
<td>PU within 8hrs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neurological response</td>
<td>Responds to Pain/Unresponsive</td>
<td>Responds to Voice</td>
<td>Alert</td>
<td>Confused/Agitated</td>
<td></td>
</tr>
</tbody>
</table>

### If a patient has any of the following
- Respiratory rate > 21
- Oxygen saturations < 93%
- Heart rate > 100/min
- Systolic BP > 150mmHg
- Diastolic BP > 90mmHg
- Urine catheter drainage

**General concerns about the patient**
- Please take the following action
  - Inform midwife in charge
  - Repeat observations within 30 minutes
  - Contact medical staff

If no improvement despite intervention

To utilise MEWS effectively please:
- Document the frequency that observations should be taken (midwifas)
- Ensure respiratory rate is recorded as part of all regular observations

If a patient triggers MEWS
1. Ensure patient is safe
2. Airway Breathing Circulation
3. Follow MEWS action plan flow chart
4. Document in medical notes:
   - Time of variance
   - What was the variance
   - Medical staff contacted name and bleep
   - Commence 15 minute observations until review
   - Keep patient under close observation

If patient’s condition does not improve, continue to seek a review from the medical staff and document accordingly

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BSOTS Algorithm

Based on the presenting symptoms, maternal and fetal observations, each algorithm enables the category of urgency to be determined for each of the reasons for attendance (red/orange/yellow/green).

It is important that clinical staff can exercise their clinical judgement when deciding on the women’s category of urgency, but this should only be used to increase the category of urgency. Clinical indicators (such as maternal blood pressure or pulse) should not be overridden.

It also details the immediate subsequent care required, which is dependent on the category of urgency and the presenting problem.
Antenatal Bleeding

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

Airway compromise
- Respiration rate ≥30 or oxygen saturation <92%
- Shock: BP <80 systolic, HR >130 bpm
- Maternal collapse
- FIt
- Altered level of consciousness or confusion
- Massive haemorrhage
- Constant severe pain
- Fetal bradycardia

1. Transfer immediately to delivery suite, HDU or Obstetric Theatres
2. Inform shift leader to inform senior obstetric and anaesthetic medical staff

Shortness of breath or chest pain
- Moderate or continuous pain
- Moderate bleeding (fresh or old)
- Any active bleeding
- Abnormal MEWS (1x red value or 2x yellow values)
- Fetal heart rate <110 bpm or >160 bpm
- No fetal movements

1. Remain in triage room until medical assessment or room available on delivery suite
2. Complete and categorise CTG (if gestation ≥26/40)
3. Review placental site on previous USS
4. Obtain IV access and take blood samples for FBC/clotting/G&Gs/Kleihauer (if Rhesus negative)
5. Inform ST3-7 obstetric medical staff of admission and to attend (re-inform or escalate if no review within 15 minutes)
6. Keep nil by mouth
7. Repeat baseline observations every 15 minutes

Mild pain
- Mild bleed (not currently active)
- Altered MEWS (1x yellow value)
- Normal fetal heart rate
- Reduced fetal movements

1. Can return to waiting room to await more detailed assessment, unless medical assessment or room available
2. Complete and categorise CTG (if gestation ≥26/40)
3. Consider bloods for FBC/clotting/G&Gs/Kleihauer (if Rhesus negative)
4. Review placental site on previous USS
5. Inform ST1-2 obstetric medical staff of admission and to attend (re-inform or escalate if no review within 1 hour)
6. Repeat baseline observations after 1 hour unless altered MEWS, in which case in 30 minutes

Minimal or no pain
- Minimal bleeding/spotting
- Normal MEWS
- Normal fetal heart rate
- Normal fetal movements

1. Can return to waiting room to await more detailed assessment (if no active bleeding or pain) unless medical assessment or room available
2. Complete and categorise CTG (if gestation ≥26/40)
3. Inform ST1-2 obstetric medical staff of admission and to attend (re-inform or escalate if no review within 4 hours)
**Subsequent immediate care**

This details the immediate subsequent care required, which is dependent on the category of urgency and the presenting reason and has been individualised for each reason for attendance and category of urgency.

It also gives an opportunity for the midwife to detail her/his name and PIN number, together with the request for medical assessment, should that be requested.
THIS IS NOT AN EXHAUSTIVE LIST OF INVESTIGATIONS: CLINICAL JUDGEMENT IS REQUIRED

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

**ORANGE (15 mins)**
Remain in triage room until medical assessment or room available on DS

<table>
<thead>
<tr>
<th>Investigations required</th>
<th>Time</th>
<th>Initials</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complete and categorise CTG (if gestation ≥26/40)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Review placental site on previous USS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Obtain IV access &amp; take blood samples for FBC/clotting/G&amp;S/ Kleihauer (if Rhesus negative)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inform SIT-7 obstetric medical staff of admission &amp; to attend</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Investigations required</th>
<th>Time</th>
<th>Initials</th>
</tr>
</thead>
<tbody>
<tr>
<td>Review placental site on previous USS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Complete and categorise CTG (if ≥26/40 gestation)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consider bloods for FBC/clotting/G&amp;S/ Kleihauer (if Rhesus negative)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inform SIT-1-2 obstetric medical staff of admission &amp; to attend</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Investigations required</th>
<th>Time</th>
<th>Initials</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complete and categorise CTG (if ≥26/40 gestation)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inform SIT-1-2 obstetric medical staff of admission &amp; to attend</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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Further assessment

This provides space to summarise the assessment (including that of the fetal heart monitoring, should that be required)
Antenatal CTG Proforma

NB If the woman is in established labour use intrapartum CTG categorisation

<table>
<thead>
<tr>
<th>Antenatal CTG Proforma Baseline rate (bpm)</th>
<th>Reassuring</th>
<th>Non-reassuring</th>
</tr>
</thead>
<tbody>
<tr>
<td>110 – 160</td>
<td>Rate:</td>
<td>Comments:</td>
</tr>
<tr>
<td>Rate:</td>
<td>More than 160</td>
<td>Rate:</td>
</tr>
</tbody>
</table>

N.B Rising baseline rate even within normal range may be concern if other non-reassuring features present

<table>
<thead>
<tr>
<th>Variability (bpm)</th>
<th>Rate: Less than 5 bpm for 50 minutes or more</th>
<th>Comments:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sinusoidal pattern for 10 minutes or more</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Satisfactory pattern of more than 25 bpm</td>
<td></td>
</tr>
<tr>
<td></td>
<td>for 10 minutes or more</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Accelerations Decelerations</th>
<th></th>
<th>Comments:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Present</td>
<td>None</td>
<td>Unprovoked deceleration/s</td>
</tr>
<tr>
<td>None</td>
<td>None</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Opinion</th>
<th>Normal CTG (All 4 features reassuring)</th>
<th>Abnormal CTG (1 or more non-reassuring features)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maternal pulse:</td>
<td>Membranes ruptured: Y / N</td>
<td>Liquor colour:</td>
</tr>
<tr>
<td>If yes, date and time:</td>
<td>Gestation (wks):</td>
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**Action:** (An abnormal CTG requires prompt review by experienced obstetrician/senior midwife)

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**ADDITIONAL INFORMATION**

Review relevant history including pre-existing conditions, medications and antenatal investigation. Remember to document relevant social and lifestyle history

<table>
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Additional information and SBAR

This page details the outcome of the attendance and facilitates the use of the SBAR for transfer.
<table>
<thead>
<tr>
<th>Date and time</th>
<th>ADDITIONAL INFORMATION</th>
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<th>HDU/ITU</th>
<th>Ward</th>
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<tr>
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<th>Time:</th>
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<td>Location (please circle):</td>
<td>Antenatal clinic</td>
<td>CMW</td>
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<thead>
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<th>Print Name and PIN</th>
<th>Signature</th>
<th>Date</th>
<th>Time</th>
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</thead>
</table>
Chapter 6 – Practice Scenarios

Key Learning Objectives

- To enable you to practice using the system and to become familiar with using it
- To consider scenarios based on real cases

Practice scenarios

There are a number of scenarios which will enable you to practice using the system. The scenarios are based on real cases. Please be prepared to share your decision making process.

Scenarios 1-8 are based on single presenting conditions, whilst scenarios 9-12 include women who have more than one presenting condition. It is recommended that you practice with a combination of scenarios from each section.
**Scenario 1**

Jessica Smith is a grand multip (G13, P8). She presents at Triage with significant vaginal bleeding at 39+3 weeks gestation.

**On arrival:** T36.9, HR84, RR18, BP 120/76. Urinalysis showed 2+s of blood and she has ongoing bleeding. Baby moving well and FHR 134

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### Questions

**What is the woman’s primary presenting condition (i.e. which algorithm would you choose)?**

<table>
<thead>
<tr>
<th>Abdominal pain</th>
<th>Antenatal bleeding</th>
<th>Hypertension</th>
<th>(P)PROM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Postnatal</td>
<td>Reduced fetal movements</td>
<td>Suspected labour</td>
<td>Unwell or other</td>
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</table>

**What is her level of urgency?**

<table>
<thead>
<tr>
<th>Red</th>
<th>Orange</th>
<th>Yellow</th>
<th>Green</th>
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</thead>
</table>

**Would you move her to the waiting room or keep her in the triage room?**

**What would you tell her?**

**What would be her immediate care?**
Scenario 2

Tracey Parry presents at triage at 36+4/40 gestation with regular contractions. She is aged 35 years and in her third pregnancy. On arrival she is extremely distressed with constant abdominal pain and no vaginal loss. She has a history of a previous caesarean section. She has been anaemic in this pregnancy but with no other complications to date.

On arrival: T 36.9, HR 120, RR 19, BP 125/60, FHR 90 on auscultation

Questions

What is the woman’s primary presenting condition (i.e. which algorithm would you choose)?

<table>
<thead>
<tr>
<th>Abdominal pain</th>
<th>Antenatal bleeding</th>
<th>Hypertension</th>
<th>(P)PROM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Postnatal</td>
<td>Reduced fetal movements</td>
<td>Suspected labour</td>
<td>Unwell or other</td>
</tr>
</tbody>
</table>

What is her level of urgency?

| Red | Orange | Yellow | Green |

Would you move her to the waiting room or keep her in the triage room?

What would you tell her?

What would be her immediate care?
Scenario 3

Gemma Joseph is aged 29 years and in her first pregnancy. She attends Triage at 27+6/40 gestation with minimal abdominal pain and vaginal discharge. She has gestational diabetes, which is treated with Metformin and Insulin. On arrival she reports minimal abdominal pain with frequent urge to pass urine. Baby is moving normally.

On arrival: T36.5, HR85, RR16, BP 135/80, FHR 150 on auscultation

Questions

What is the woman’s primary presenting condition (i.e. which algorithm would you choose)?

<table>
<thead>
<tr>
<th>Abdominal pain</th>
<th>Antenatal bleeding</th>
<th>Hypertension</th>
<th>(P)PROM</th>
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<tbody>
<tr>
<td>Postnatal</td>
<td>Reduced fetal</td>
<td>Suspected</td>
<td>Unwell</td>
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<td></td>
<td>movements</td>
<td>labour</td>
<td>or other</td>
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What is her level of urgency?

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<tr>
<th>Red</th>
<th>Orange</th>
<th>Yellow</th>
<th>Green</th>
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</table>

Would you move her to the waiting room or keep her in the triage room?

What would you tell her?

What would be her immediate care?

Who would be able to discharge her?
Scenario 4

Sameena Khan is aged 27 years and in her second pregnancy. She attends Triage at 39/40 gestation with reduced fetal movements for the past two days. She is booked under midwifery led care and reports mild abdominal pain but that she has felt some fetal movements whilst in the waiting room.

On arrival: T36.5, HR108, RR18, BP 114/68, FHR 145 on auscultation.

Questions

<table>
<thead>
<tr>
<th>What is the woman’s primary presenting condition (i.e. which algorithm would you choose)?</th>
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<tr>
<td>Abdominal pain</td>
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<td>Postnatal</td>
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<th>What is her level of urgency?</th>
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</table>

Would you move her to the waiting room or keep her in the triage room?

What would you tell her?

What would be her immediate care?

Who would be able to discharge her?
Scenario 5

Mandy Smith is aged 30 years and in her first pregnancy. She is referred to Triage by her community midwife at 40+11/40 gestation with raised blood pressure. She reports a severe headache, blurred vision and upper abdominal pain. Community midwife has documented 3+ protein in her urine.

On arrival: T36.5, HR104, RR16, BP 165/100, FHR 134 on auscultation.

<table>
<thead>
<tr>
<th>Questions</th>
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<tbody>
<tr>
<td>What is the woman’s primary presenting condition (i.e. which algorithm would you choose)?</td>
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<tr>
<td>Abdominal pain</td>
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<td>Postnatal</td>
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<th>What is her level of urgency?</th>
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</table>

| Would you move her to the waiting room or keep her in the triage room? |

| What would you tell her? |

| What would be her immediate care? |

| Who would be able to discharge her? |
Scenario 6

Michelle Rust, aged 34 years, attends Triage four days after the spontaneous vaginal birth of her third baby. She has felt unwell for the last 24 hours with rigors and increased vaginal bleeding and lower abdominal pain

On arrival: T38.6, HR140, RR36, BP 80/40 and appears confused.

Questions

| What is the woman’s primary presenting condition (i.e. which algorithm would you choose)? |
|---------------------------------|---------------------------------|----------------|----------------|
| Abdominal pain                  | Antenatal bleeding              | Hypertension   | (P)PROM        |
| Postnatal                       | Reduced fetal movements         | Suspected labour| Unwell or other|

What is her level of urgency?

- Red
- Orange
- Yellow
- Green

Would you move her to the waiting room or keep her in the triage room?

What would you tell her?

What would be her immediate care?
Scenario 7

Katie Jones, aged 32 years is in her third pregnancy. She attends Triage at 28/40 feeling unwell with a headache and sore throat.

On arrival: T37.8, HR115, RR18, BP 120/80, Urinalysis NAD, FHR 134 and baby moving normally

Questions

What is the woman’s primary presenting condition (i.e. which algorithm would you choose)?

<table>
<thead>
<tr>
<th>Abdominal pain</th>
<th>Antenatal bleeding</th>
<th>Hypertension</th>
<th>(P)PROM</th>
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<tbody>
<tr>
<td>Postnatal</td>
<td>Reduced fetal movements</td>
<td>Suspected labour</td>
<td>Unwell or other</td>
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</tbody>
</table>

What is her level of urgency?

| Red | Orange | Yellow | Green |

Would you move her to the waiting room or keep her in the triage room?

What would you tell her?

What would be her immediate care?
Scenario 8

Yasmin Bibi presents at Triage at 41+2 weeks gestation with query ruptured membranes. She is G2, P1 with a normal pregnancy so far. No contractions.

On arrival: T37, HR88, RR17, BP 120/70, FHR 128 and baby moving normally

Questions

What is the woman’s primary presenting condition (i.e. which algorithm would you choose)?

<table>
<thead>
<tr>
<th>Abdominal pain</th>
<th>Antenatal bleeding</th>
<th>Hypertension</th>
<th>(P)PROM</th>
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<tbody>
<tr>
<td>Postnatal</td>
<td>Reduced fetal movements</td>
<td>Suspected labour</td>
<td>Unwell or other</td>
</tr>
</tbody>
</table>

What is her level of urgency?

| Red | Orange | Yellow | Green |

Would you move her to the waiting room or keep her in the triage room?

What would you tell her?

What would be her immediate care?

Who would be able to discharge her?
Scenarios 9-12 include more complex cases, where women present with more than one concern.

**Scenario 9**

Gina Ferrelli is 38 weeks pregnant with her third baby and has come to Triage in labour. Her contractions are 2:10 and pain is moderate and she is distressed. She describes being in ‘slow labour’ for 2 days within which time she hasn’t felt her baby move as much, not at all today.

**On arrival:** T37.2, HR98, RR15, BP 135/80, FH 120.

**Questions**

| What is the woman’s primary presenting condition (i.e. which algorithm would you choose)? |
|---------------------------------|---------------------------------|---------------------------------|---------------------------------|
| Abdominal pain                  | Antenatal bleeding              | Hypertension                    | (P)PROM                         |
| Postnatal                       | Reduced fetal movements         | Suspected labour                | Unwell or other                 |

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<tr>
<th>What is her level of urgency?</th>
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<th>Would you move her to the waiting room or keep her in the triage room?</th>
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<th>Other than the primary presenting condition, which other conditions would you consider?</th>
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<th>What would you tell her?</th>
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<tr>
<th>What additional tests or investigations would you do outside those on the chosen algorithm?</th>
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</table>
Scenario 10

Sarah Willis is 37 weeks gestation in her first pregnancy. She has been referred to triage by her Community midwife with raised blood pressure. She describes having a mild headache and that her baby hasn’t moved much today.

On arrival: T36.4, HR84, BP 150/94, RR17, urinalysis: protein 1+. FHR 130.

Questions

What is the woman’s primary presenting condition (i.e. which algorithm would you choose)?

<table>
<thead>
<tr>
<th>Abdominal pain</th>
<th>Antenatal bleeding</th>
<th>Hypertension</th>
<th>(P)PROM</th>
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<td>Postnatal</td>
<td>Reduced fetal</td>
<td>Suspected</td>
<td>Unwell</td>
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<tr>
<td></td>
<td>movements</td>
<td>labour</td>
<td>or other</td>
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</tbody>
</table>

What is her level of urgency?

| Red | Orange | Yellow | Green |

Would you move her to the waiting room or keep her in the triage room?

Other than the primary presenting condition, which other conditions would you consider?

What would you tell her?

What additional tests or investigations would you do outside those on the chosen algorithm?
Scenario 11

Yasmin Bi is 24 years old in her first pregnancy. She is pregnant with DC DA twins following IVF and is 27 weeks. She attends Triage with a single episode of PV bleeding yesterday, but now describes the loss as watery pink and that she feels generally unwell.

On arrival: T37.8, HR115, RR23, BP 95/60, FHR 155-160, pain is mild.

**Questions**

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<thead>
<tr>
<th>What is the woman’s primary presenting condition (i.e. which algorithm would you choose)?</th>
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<tbody>
<tr>
<td>Abdominal pain</td>
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<tr>
<td>Postnatal</td>
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</tbody>
</table>

**What is her level of urgency?**

| Red | Orange | Yellow | Green |

**Would you move her to the waiting room or keep her in the triage room?**

**Other than the primary presenting condition, which other conditions would you consider?**

**What would you tell her?**

**What additional tests or investigations would you do outside those on the chosen algorithm?**
**Scenario 12**

Zara Moore is 34 years old, is 36+3 weeks pregnant with her third baby and has reduced fetal movements. She had two previous SGA births, smokes 15/day and has attended Triage with reduced fetal movements once previously. During her initial assessment she says she has mild suprapubic pain.

**On arrival:** T36.7, HR84, RR18, BP 120/78, FHR 135, and urinalysis: protein 2+, blood 1+.

### Questions

| What is the woman’s primary presenting condition (i.e. which algorithm would you choose)? |
|----------------------------------|----------------------------------|-------------------|-------------------|------------------|
| Abdominal pain                  | Antenatal bleeding              | Hypertension      | (P)PROM           |
| Postnatal                       | Reduced fetal movements         | Suspected labour  | Unwell or other   |

<table>
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<th>What is her level of urgency?</th>
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**Would you move her to the waiting room or keep her in the triage room?**

**Other than the primary presenting condition, which other conditions would you consider?**

**What would you tell her?**

**What additional tests or investigations would you do outside those on the chosen algorithm?**
Chapter 7 – Evaluation of BSOTS

Key Learning Objectives

- To examine the evaluation undertaken on the BSOTS system
- To consider the national need for a maternity triage system

Evaluation of the introduction of the BSOTs system at BWCNFT

A mixed methods design was selected as the best approach for evaluating the impact of the introduction of the BSOTS. The objective was to evaluate recognised features of a robust triage system as described earlier (utility, validity, reliability and safety). Both quantitative and qualitative methods were used in a balanced way to access the key aspects of the phenomenon being investigated. This involved:

- A structured audit of notes for a set period before and after implementation
- An inter-operator reliability study using scenarios completed by clinical midwives
- Exploration of midwives’ views using:
  - Focus groups
  - A questionnaire to investigate midwives’ views of implementation
  - A questionnaire to assess the bespoke training
- Survey of practice designed after implementation to explore current UK clinical practice for the assessment and management of unscheduled pregnancy related attendances

Structured audit of notes

The primary measure was the number of women having initial triage assessment within 15 minutes of arrival. Secondary measures (classified by level of urgency) included time to midwifery assessment subsequent to arrival, time to medical assessment, if required, total time spent in Triage department, whether the woman was admitted (and to where) or discharged and by whom, date of next contact and reason for attendance, if discharged. Reliability and validity of the assigned category of urgency following the initial triage assessment was undertaken by reviewing the notes of women/babies who had predefined outcomes within 24 hours of attendance (these included maternal admission to High Dependency Unit/Intensive Therapy Unit or death, category 1 Caesarean Section, active neonatal resuscitation, Apgar <7 at 5 minutes, arterial pH <7.05 or neonatal admission to Neonatal Intensive Care Unit or neonatal death).

The Development Group estimated that 60% of women had an assessment within 15 minutes of attendance in Triage before the introduction of BSOTS. It was suggested this would increase to 70% following the introduction of BSOTS. To detect a difference of this
size (10% absolute) with 90% power (5% significance) would require at least 992 notes to be audited. (496 before introduction and 496 afterwards)

We selected a random sample of 992 from the notes of the 1074 women who attended in June 2012 and 1028 in June 2013. The audit was undertaken by members of the DG following a pilot on 20 sets of maternity notes (from July 2012), undertaken to refine the data collection form. Data were extracted using an audit data collection form. For the proportion of women assessed within 15 minutes in 2013 compared with 2012, relative risks and 95% confidence intervals were generated; statistical significance was determined through chi-squared test. Two sample t-tests were used to evaluate whether there was evidence of a difference from 2013 compared with 2012 in time waiting for initial assessment, between arrival and medical assessment and total time in triage. Descriptive statistics are used for the remaining data.

Data was extracted from 974/992 (98%) sets of maternity notes as 18 sets were not available. Baseline characteristics were similar for all those who attended the Triage department and those included in the audit and between the two years audited (for parity, maternal age and ethnicity, primary reason for attendance and attendance number).

The primary outcome showed an increase in the number of women seen within 15 minutes of attendance from 38% to 53% Relative risk (RR) 1.4 (1.2, 1.7 (95% confidence interval (CI) p=0.0001.

Secondary outcomes: Introduction of BSOTS appears to show reductions in the time spent waiting for assessment and the time to medical assessment, as well as reductions in the total time in triage.

Seventy six per cent of women were discharged home following assessment (data not shown). Of those admitted, the most common reason was suspected labour. The date and venue of next attendance were collected to determine the reliability of the triage assessment, and showed the majority of women were seen over a week later (60%), mainly for scheduled antenatal visits, 32% gave birth, date of next contact in unknown for 7%.

Review of the 27 cases with serious maternal or neonatal outcomes (defined above) within 24 hours of Triage assessment provided evidence of the reliability and validity of the standardised triage assessment with events occurring a number of hours after the triage assessment and being related to labour/ birth.

These results appear to show that BSOTs is relatively easy to use (utility) and the triage decisions appear to correspond with the clinical situation and improve safety.

**Inter-rater reliability study**

Thirty midwives (Band 7, n=15; Band 6, n=14; Band 5, n=1), who had undergone the BSOTS training and were currently working in Triage were randomly selected and agreed to complete eight vignettes designed to characterise the most common reasons for attendance.

Band 6 midwives were more likely to be rotational than staff in other bands, have worked for a shorter time in midwifery, and be younger. There were no other differences between
band levels and demographics. Midwives most frequently worked in triage 1-2/week (43.3%, followed by 1-2/month, 36.7%), and rated the tool as extremely (43.3%) or fairly useful (50.0%).

Excellent inter-rater reliability (ICC 0.961 (95% CI 0.91-0.99) was demonstrated\(^1\). Total accuracy was 90.8%, and scenarios with the highest and lowest clinical importance were most consistently assessed accurately. Chi square goodness-of-fit calculation indicated the frequency of incorrect answers for the yellow category was significantly higher than in all other categories \(\chi^2 (2) = 27.91, p < .001\).

There was no apparent relationship between demographic variables (e.g., band level, triage experience), and the level of accuracy or inter-rater agreement \((p > 0.05)\).

As previously identified, robust triage systems need to show strong reliability. These results show that BSOTS has high inter-rater reliability and that the system results in the same prioritisation of cases independent of the clinician performing the role and is consistent.

**Focus groups and a questionnaire to assess midwives’ views of implementation**

Two focus group interviews were held with midwives (12 in total). Thematic analysis of the focus group data was used to inform the development of a questionnaire, which was sent to midwives working in triage. The response rate to the questionnaire was 53/79 (67%).

Findings from the focus group interviews demonstrated that the midwives felt the introduction of the new system had gone well and that it helped them manage and organise the department. They reported that they felt the safety of women and their babies had improved and that the system, although standardised, afforded them opportunities to use their clinical judgment when appropriate.

However, both the focus group participants and the questionnaire respondents identified unnecessary repetition in the paperwork and expressed concerns about the use of a validated pain score, which was felt to be a limitation of the system. As a result of exploring the views of the midwives, the validated numerical pain score was removed from the initial assessment and replaced with a clinical assessment of pain (as being none, mild, moderate or severe). Changes were also made to the documentation to eliminate repetition of information.

All the midwives who responded to the questionnaire worked in Triage often and the majority had undertaken the training (38/53). The findings suggest that the midwives found the system ‘largely helpful’ or ‘extremely helpful’ in assessing the clinical urgency of women attending (37/53), that it ‘usually’ or ‘always’ allowed them to use their clinical judgement (38/53), despite being standardised, and ‘usually’ or ‘always’ enabled them to accurately describe the workload in the Triage department (35/53). Some midwives found the lack of continuity when not caring for individual women (a feature of the previous system) difficult to adjust to, however, 36/53 midwives felt it was safer to divide care into immediate clinical assessment and further care and investigations. The responses regarding the pain score showed that midwives’ opinions were divided, with some feeling that it should be agreed between the midwife and the women, and others stating that only midwives should assess pain.
**Questionnaire to assess midwives views of the bespoke training**
The response rate immediately after training was 100%, and 69% (49/65) at three months.

Responses showed that the midwives felt the training had improved both their knowledge of and confidence in using the new system on completion and three months after implementation.

**National Survey of practice in 2015**
A national paper postal survey was distributed to Labour Ward Leads in UK maternity units with over 3000 births, and a reminder sent, to explore where women with unscheduled pregnancy related attendances were seen within their maternity units, what times such services were available, and what staffing models were used for both midwifery and obstetric staff. Enquiry was made as to whether the unit currently used a system to identify clinical priority of those who attend, and what that system was.

The postal survey was undertaken in 2015 and had a response rate of 85/135 (63%) maternity units. Most women with unscheduled pregnancy related attendances were seen in units designated as either Triage or Day Assessment 69/85 (81%), with 61/85 (72%) reported to open for 24 hours a day. Nineteen percent of the respondents (16/85) reported that women are seen on Delivery Suite. The numbers of women being seen monthly varied from <300 (3 units) to over 1000 (17 units) and reflect the size of the respective maternity unit that responded. Fifty three reported separate staffing from Delivery Suite and 18 reported shared staffing. Models of staffing reflect the variation in size of the units and services provided. For example there were differences in the amount of cover, the seniority and number of midwives and obstetricians available, and four units employed maternity support workers to work within this area.

Thirty four units reported they did not have a system to identify the clinical priority of women presenting with unscheduled pregnancy related problems. Of the 48 units that did report they had such a system, 35 reported it was based solely on clinical judgement. In summary, 69 of the 85 (81%) of units that responded did not have a formal system in place based on structured clinical assessment.

**Further roll-out and evaluation of BSOTS 2015-2016**
Between 2015-2016 the BSOTS bundle was rolled out to three maternity units and implementation was evaluated by the Collaboration for Leadership and Applied Health Research and Care West Midlands (CLAHRC WM). The maternity units involved were Royal Wolverhampton (New Cross), University Hospitals of North Midlands and Shrewsbury and Telford. The planned evaluation included:

- A structured audit of notes
- An inter-operator reliability study using scenarios
- Exploration of clinicians views using:
  - A questionnaire to assess the bespoke training, immediately after training and at 3 months
  - Focus groups, interviews and non-participant observation
Results

The structured audit of notes gave limited results regarding timings within the triage department. This was due to a mixture of lack of a comparator, difficulties with the timings recorded and missing data.

The evaluation was, however, able to add to the information regarding validity and reliability of BSOTS. Over all three maternity units on average 61% of women were discharged home after their triage attendance. The date and venue of next attendance were collected to determine the reliability of the triage assessment, and showed the majority of women were seen over a week later, mainly for scheduled antenatal visits. There were no cases of serious maternal or neonatal outcomes (defined above) within 24 hours of attendance at triage.

Inter-rater reliability was assessed across all three sites using vignettes which were taken from real cases (seen at BWCNFT) to characterise the eight primary reasons for attendance and the clinical observations (determinants) that are relevant to the decision making. These were completed by 22 midwives and demonstrated excellent inter-rater reliability at 0.971 (0.915-0.996). There was no apparent difference between band level and amount of triage experience.

In all three sites the midwives reported that BSOTS training had improved their knowledge and confidence. Adoption in the maternity units varied due to a number of issues: such as local leadership, not all staff being trained to use the system and midwives not liking the fact that one to one care cannot be given by the same midwife throughout the care episode if the system is to work successfully.

Despite these issues all the sites have continued to use the system after completion of the evaluation as they feel it is safer and improves the organisation of the department.
National Roll-out

In May 2017 a consensus meeting was chaired by the Director of the Birmingham Clinical Trials Unit with representatives from the RCOG, the National Maternal and Neonatal Health Safety Collaborative, service users, PROMPT (PRactical Obstetric Multi-Professional Training in obstetric emergencies), West Midlands Clinical Networks & Clinical Senate and Warwick Business School. At the meeting it was agreed that not further evaluation was required and that the team would explore the next phases of roll-out, with increased safety for mothers and babies as well as the clinicians, being the driver.

To that end it has been included as a safety option by the National Maternal and Neonatal Health Safety Collaborative, and the local maternity Clinical Networks and the West Midlands Academic Health Science Network are supporting implementation. The Royal College of Obstetricians and Gynaecologists (RCOG) and the Royal College of Midwives (RCM) also support its implementation.

The additional advantages/ benefits of using BSOTS within maternity triage

- The system enables improved management of the department by enabling staff to
  - See how many women have not yet had their initial triage assessment to determine level of clinical urgency
  - For those women who have had the initial assessment the level of clinical urgency is known for each woman
  - When further assessments are due for women in the Department
- Allows easy handover between shifts and if the woman is admitted using SBAR
- There is a shared language between clinicians which facilitates timely communication
- Where space is an issue it enables women to be treated according to their clinical priority as it allows women with less clinical urgency to be safely moved out to the waiting area and those who require more urgent treatment to be cared for
- Should workload become too heavy use of BSOTS enables escalation to occur

Conclusion

This obstetric triage system has excellent inter-operator reliability and utility. The system appears to be a reliable and valid way of assessing the clinical priority of women which is likely to improve the safety of women and babies attending triage.
Appendix 1 – Algorithms

Symptom Specific Algorithms

On the following pages are the symptom specific algorithms for the eight most common reasons women attend triage with. Please look through them to familiarise yourselves with them.

1. Abdominal Pain
2. Antenatal Bleeding
3. Hypertension
4. Postnatal
5. (P)PROM – Ruptured Membranes
6. Reduced Fetal Movements
7. Suspected Labour
8. Unwell/Other
Abdominal Pain
This is not an exhaustive list of presenting symptoms and clinical judgement is required

Airway compromise
Respiration rate ≥30 or oxygen saturation <92%
Shock: BP <80 systolic, HR >130bpm
Maternal collapse
Fit
Altered level of consciousness or confusion
Massive haemorrhage
Constant severe pain
Fetal bradycardia

1. Transfer immediately to DS, HDU or Obstetric Theatres
2. Inform DS Shift Leader to inform senior obstetric and anaesthetic medical staff

Shortness of breath or chest pain
Moderate or continuous pain
Moderate bleeding (fresh or old)
Active bleeding
Abnormal MEWS (1x red value or 2x yellow values)
Fetal heart rate <110bpm or >160bpm
No fetal movements

Mild pain
Mild bleed (not currently active)
Altered MEWS (1x yellow value)
Normal fetal heart rate
Reduced fetal movements

Minimal or no pain
No bleeding
Normal MEWS
Normal fetal heart rate
No contractions
Normal fetal movements
Antenatal Bleeding

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

<table>
<thead>
<tr>
<th>Symptom/Medical Condition</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Airway compromise</td>
<td>1. Transfer immediately to delivery suite, HDU or Obstetric Theatres</td>
</tr>
<tr>
<td></td>
<td>2. Inform shift leader to inform senior obstetric and anaesthetic medical staff</td>
</tr>
<tr>
<td>Respiration rate ≥30 or oxygen saturation &lt;92%</td>
<td></td>
</tr>
<tr>
<td>Shock: BP &lt;80 systolic, HR &gt;130bpm</td>
<td></td>
</tr>
<tr>
<td>Maternal collapse</td>
<td></td>
</tr>
<tr>
<td>Fit</td>
<td></td>
</tr>
<tr>
<td>Altered level of consciousness or confusion</td>
<td></td>
</tr>
<tr>
<td>Massive haemorrhage</td>
<td></td>
</tr>
<tr>
<td>Constant severe pain</td>
<td></td>
</tr>
<tr>
<td>Fetal bradycardia</td>
<td></td>
</tr>
<tr>
<td>Shortness of breath or chest pain</td>
<td></td>
</tr>
<tr>
<td>Moderate or continuous pain</td>
<td></td>
</tr>
<tr>
<td>Moderate bleeding (fresh or old)</td>
<td></td>
</tr>
<tr>
<td>Any active bleeding</td>
<td></td>
</tr>
<tr>
<td>Abnormal MEWS (1x red value or 2x yellow values)</td>
<td></td>
</tr>
<tr>
<td>Fetal heart rate &lt;110bpm or &gt;160bpm</td>
<td></td>
</tr>
<tr>
<td>No fetal movements</td>
<td></td>
</tr>
<tr>
<td>Mild pain</td>
<td></td>
</tr>
<tr>
<td>Mild bleed (not currently active)</td>
<td></td>
</tr>
<tr>
<td>Altered MEWS (1x yellow value)</td>
<td></td>
</tr>
<tr>
<td>Normal fetal heart rate</td>
<td></td>
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<tr>
<td>Reduced fetal movements</td>
<td></td>
</tr>
<tr>
<td>Minimal or no pain</td>
<td></td>
</tr>
<tr>
<td>Minimal bleeding/spotting</td>
<td></td>
</tr>
<tr>
<td>Normal MEWS</td>
<td></td>
</tr>
<tr>
<td>Normal fetal heart rate</td>
<td></td>
</tr>
<tr>
<td>Normal fetal movements</td>
<td></td>
</tr>
</tbody>
</table>

1. Can return to waiting room to await more detailed assessment (if no active bleeding or pain) unless medical assessment or room available
2. Complete and categorise CTG (if gestation ≥26/40)
3. Inform ST1-2 obstetric medical staff of admission and to attend (re-inform or escalate if no review within 4 hours)
Hypertension
This is not an exhaustive list of presenting symptoms and clinical judgement is required

Mild pain
Mild bleed (not currently active)
Headache
Altered MEWS (1x yellow value)
BP ≥140/90
Proteinuria 1-2+
Normal fetal heart rate
Reduced fetal movements

Minimal or no pain
No headache
Normal MEWS
BP <140/90
No/trace proteinuria
Normal fetal heart rate
Normal fetal movements

1. Transfer immediately to delivery suite HDU or Obs Theatre
2. Inform shift leader to inform senior obstetric and anaesthetic medical staff
### Postnatal

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

<table>
<thead>
<tr>
<th>Symptoms</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Airway compromise</td>
<td>1. Transfer immediately to delivery suite, HDU or Obs Theatre</td>
</tr>
<tr>
<td>Respiration rate ≥30 or oxygen saturation &lt;92%</td>
<td>2. Inform shift leader to inform senior obstetric and anaesthetic medical staff</td>
</tr>
<tr>
<td>Shock: BP &lt;80 systolic, HR &gt;130bpm</td>
<td></td>
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<tr>
<td>Maternal collapse</td>
<td></td>
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<tr>
<td>Fit</td>
<td></td>
</tr>
<tr>
<td>Altered level of consciousness or confusion</td>
<td></td>
</tr>
<tr>
<td>Massive haemorrhage</td>
<td></td>
</tr>
<tr>
<td>Constant severe pain</td>
<td></td>
</tr>
<tr>
<td>Shortness of breath or chest pain</td>
<td></td>
</tr>
<tr>
<td>Moderate or continuous pain</td>
<td></td>
</tr>
<tr>
<td>Abnormal MEWS (1x red or 2x yellow values)</td>
<td></td>
</tr>
<tr>
<td>Respiratory rate &gt;20</td>
<td></td>
</tr>
<tr>
<td>Moderate haemorrhage</td>
<td></td>
</tr>
<tr>
<td>Hypothermia</td>
<td></td>
</tr>
<tr>
<td>Additional signs of sepsis - diarrhoea/vomiting/recent sore throat or respiratory tract infection/cough</td>
<td></td>
</tr>
</tbody>
</table>
(P)PROM – Ruptured Membranes

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

1. Can return to waiting room to await more detailed assessment, unless medical assessment or room available
2. If appropriate, perform speculum examination if necessary to confirm PROM if no liquor visible
3. Complete and categorise CTG (if gestation ≥26/40)
4. Offer immediate IOL if PROM >24 hours and not in active labour
5. If PROM and GBS positive, offer immediate IOL
6. Inform ST1-2 obstetric medical staff of admission and to attend (re-inform or escalate if no review within 1 hour)
7. Repeat baseline observations after 1 hour unless altered MEWS, in which case in 30 minutes

Shortness of breath or chest pain
Moderate or continuous pain
Moderate bleeding (fresh or old)
Active bleeding
Abnormal MEWS (1x red or 2x yellow values)
Fetal heart rate <110bpm or >160bpm
Meconium stained liquor
Reduced fetal movements
Suspected chorioamnionitis

Regular painful contractions
Mild pain
Mild bleed (not currently active)
Altered MEWS (1x yellow value)
Gestation <37/40
Normal fetal heart rate
Known fetal anomaly
High risk as per labour risk assessment tool

Clear liquor or no liquor seen
Gestation ≥ 37/40
Minimal/no pain
No contractions
No bleeding
Normal MEWS
Normal fetal heart rate
Normal fetal movements
Low risk as per labour risk assessment tool

1. Transfer immediately to delivery suite, HDU or Obs Theatres
2. Inform shift leader to inform senior obstetric and anaesthetic medical staff

1. Can return to waiting room to await more detailed assessment, unless medical assessment or room available
2. Perform speculum examination if necessary to confirm PROM if no liquor visible
3. Complete and categorise CTG (if gestation ≥26/40)
4. Offer immediate IOL if PROM >24 hours and not in active labour
5. If PROM and GBS positive, offer immediate IOL
6. Inform ST1-2 obstetric medical staff of admission and to attend (re-inform or escalate if no review within 1 hour)
7. Repeat baseline observations after 1 hour unless altered MEWS, in which case in 30 minutes

1. Can return to waiting room to await more detailed assessment if no active bleeding or pain unless medical assessment or room available
2. Perform speculum examination if necessary to confirm PROM if no liquor visible
3. If confirmed PROM and GBS positive, offer immediate IOL
4. Offer immediate IOL if PROM >24 hours and not in active labour
5. Arrange IOL or 24 hour review as policy: give written information; verbal advice re labour and signs of infection; complete IOL booking proforma only then suitable for MW to discharge
6. If no evidence of PROM, MW to discharge with appropriate routine follow-up with CMW or ANC
Reduced Fetal Movements
This is not an exhaustive list of presenting symptoms and clinical judgement is required

- Airway compromise
- Respiratory rate ≥30 or oxygen saturation <92%
- Shock: BP <80 systolic, HR >130bpm
- Maternal collapse
- Fit
- Altered level of consciousness or confusion
- Massive haemorrhage
- Constant severe pain

1. Transfer immediately to delivery suite, HDU Obs Theatres
2. Inform shift leader to inform senior obstetric and anaesthetic medical staff
3. USS if unable to auscultate FH

- Mild pain
- Mild bleed (not currently active)
- Altered MEWS (1x yellow value)
- Normal fetal heart rate
- Reduced FM or altered pattern prior to attendance

- Minimal or no pain
- No bleeding
- Normal MEWS
- Normal fetal heart rate
- Normal fetal movements on admission
**Suspected Labour**

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

1. Transfer immediately to delivery suite or Birth Centre (Birth Centre suitable if low risk as per labour risk assessment tool and imminent birth)
2. Inform Shift Leader

1. Can return to waiting room to await more detailed assessment, unless medical assessment or room available
2. Take history using labour risk assessment tool
3. Auscultate FH for 1 minute; if high-risk commence CEFM
4. Gain consent and complete vaginal examination
5. Offer immediate IOL if PROM >24hrs and not in active labour
6. If PROM and GBS positive, offer immediate IOL
7. If normal CTG/FHR and not in active labour, discharge home or transfer to antenatal ward with advice for early labour care
8. Repeat maternal and fetal observations every 30 minutes

**Gestation ≥37/40**
- Regular painful contractions
- Altered MEWS (1x yellow value)
- Normal fetal heart rate
- Known fetal anomaly
- PROM > 24 hours
- High risk as per labour risk assessment

**Gestation ≥37/40**
- Irregular mild contractions
- No bleeding
- Normal MEWS
- Normal fetal heart rate
- Normal fetal movements
- PROM <24 hours
- Low risk as per labour risk assessment
Unwell or Other
This is not an exhaustive list of presenting symptoms and clinical judgement is required

1. Transfer immediately to delivery suite or HDU
2. Inform shift leader to inform senior obstetric and anaesthetic medical staff

Itching
Minimal or no pain
No bleeding
Normal MEWS
Normal fetal heart rate
Normal fetal movements
Acknowledgments

This training has been developed by Dr Nina Johns and Professor Sara Kenyon, supported by Dr Laura Goodwin.

Development of the four category system for triage in maternity care uses symptom based algorithms for the identification of the category of urgency (triage) and subsequent immediate care of women attending triage was led by Dr Nina Johns (Delivery Suite Lead Obstetrician, Birmingham Women’s and Children’s NHS Foundation Trust) and Dr Sara Kenyon (Professor of Evidence Based Maternity Care at the University of Birmingham), with Karla Hemming (Medical Statistician, University of Birmingham). A Development Group (DG) was formed which comprised of: Delivery Suite Matron Justine Jeffery; Senior Midwives Kate Horton, Sue Smithson and Lynn Davies currently working in maternity triage; Becky Wilson (Audit and Guideline Midwife); Sarah Caranci and Jolene Easterbrook.

An Advisory Group supported the process and included Professor Khaled Ismail, Professor Andy Ewer (neonatologist), Justine Jeffery (Delivery Suite Matron) and Ruth Hewston (Service User).

Agreement of the symptom specific algorithms was obtained from the Birmingham Women’s Hospital NHS Foundation Trust consultant obstetricians group.

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References


