MATERNAL COLLAPSE IN PREGNANCY AND PUERPERIUM - CLINICAL GUIDELINE

V2.0 2018
Maternal Collapse in Pregnancy and Puerperium – Clinical Guideline

Page 2 of 19
1. **Aim/Purpose of this Guideline**

1.1. This document guides obstetricians, obstetric anaesthetists, midwives, nurses and maternity support workers (MSW) on the recognition and management of maternal collapse in both the acute and community settings.

- This guideline to be read in consideration with the following guidelines
- VTE risk assessment in pregnancy, labour and post-partum period
- Eclampsia and severe pre-eclampsia
- Vaginal birth after caesarean section (VBAC)
- Epidurals analgesia in Labour
- Caesarean Section
- Obstetric Haemorrhage
- Severely ill obstetric woman-the management and early recognition of
- MEOWS
- SEPSIS with BUFALO

2. **The Guidance**

2.1 **Incidence**
This is a rare event that presents variably as a combination of apnoea, cyanosis and hypotension possibly followed by convulsions and/or cardiac arrest. The incidence of maternal collapse lies between 0.14 and 6/1000 (14 and 600/100,000) births. As it is rare, with potentially devastating consequences, it is essential that caregivers are skilled in initial effective resuscitation techniques and are able to investigate and diagnose the cause of the collapse to allow appropriate, directed continuing management. It should be noted that vasovagal attacks and the post-ictal state following an epileptic seizure are the most common causes of ‘maternal collapse’ and are not covered by this guideline.

2.2 **Identification**
A Maternity Early Obstetric Warning Scoring system (MEOWS) should be used for all women; this includes ante natal, intrapartum and postpartum observations. This is to allow early recognition of the woman who is deteriorating and becoming critically ill. In some cases maternal collapse occurs with no prior warning, although there may be existing risk factors that make this more likely. Antenatal care for women with significant medical conditions at risk of maternal collapse should include multidisciplinary team input with a pregnancy and delivery management plan in place.

2.3 **Causes**
The common reversible causes of collapse in any woman can be remembered using the well known ‘aide memoire’ employed by the Resuscitation Council (UK) of the 4 T’s and the 4 H’s.

- Thromboembolism (include Amniotic fluid embolism/Anaphylactoid Syndrome of pregnancy)
• Toxicity (remember spinal and local anaesthetics; magnesium) (new 2017)
• Tension pneumothorax
• Tamponade (cardiac)
• Hypovolaemia,
• Hypoxia
• Hypo/hyperkalaemia and other electrolyte disturbances
• Hypothermia
• Eclampsia, intracranial haemorrhage and sepsis (New 2017)

Although consideration should be given to the cause of the collapse throughout the resuscitation process, this should never delay the initiation or continuation of resuscitation. The immediate resuscitative management of all conditions is the same for any woman who collapses before, during, or after labour.

Hypovolaemia due to bleeding is the most common cause of a maternal collapse, but hypovolaemia can also occur secondary to a high spinal block and septic shock (see guideline “The management and early recognition of the severely ill pregnant woman”).

Other causes more commonly occurring in the maternity setting include
• Magnesium toxicity- antidote is 10mls of 10% calcium gluconate given by slow IV injection
• Local anaesthetic toxicity (Bupivicaine). Consider use of Intralipid 20% 1.5ml/kg over 1min (100ml for 70kg woman) followed by an IV infusion of 0.25ml/kg/min (400ml over 20mins). The bolus injection can be repeated twice at 5 minute intervals. See AAGBI guideline 2. Advanced life support and CPR should be continued throughout administration of intralipid until an adequate circulation is restored. All cases of lipid rescue should be reported to the Lipid rescue site (www.lipidrescue.org)

2.4 Identification
In the event of a collapsed woman - Immediate Emergency Resuscitative Management (New 2018)

2.4.1 Call for help via emergency bell
2.4.2 Call 2222 Request ‘Maternal Emergency Response Team for maternal collapse’. State location.
2.4.3 Commence Basic Life support (A.B.C.) www.resus.org.uk
2.4.4 Give oxygen via facial mask at 15 L/Min with reservoir mask and ensure you fill the reservoir bag
2.4.5 Manual uterine displacement with slight head down (pregnant women only)
2.4.6 Obtain venous access (2 large bore cannulae), consider CVP line
2.4.7 Initiate fluid resuscitation to correct shock
2.4.8 Institute Advanced Life Support (intubation / ventilation / inotropes) for:
  ▪ persistent hypoxia
  ▪ hypotension or
  ▪ reduced level of consciousness
2.4.9 Start modified early obstetric warning system chart (MEOWS)

2.5 Initiate Investigations to Establish a Diagnosis:

2.5.1 Review maternal medical history to identify possible cause
2.5.2 MEOWS observations
2.5.3 Venous blood – U&E/ FBC / Coagulation / cross-match 4 units
2.5.4 Arterial blood gases
2.5.5 ECG
2.5.6 CVP line – take a clotted sample for squames (see below)

N.B Inform the Obstetric and Anaesthetic Consultants on call at an early stage. For ANY maternal collapse Obstetric Consultant must attend in person

2.6 Maternal cardiac arrest
To achieve a perimortem caesarean section within 5 minutes it is essential the obstetric registrar is included in the cardiac arrest call team. Stating ‘maternal cardiac arrest’ will ensure the obstetrician is included in the emergency call.

2.7 Perimortem section
As soon as it is clear that resuscitation efforts have been deemed unsuccessful delivery should be undertaken to assist maternal resuscitation. Recent evidence suggests that collapse-to-birth times of < 3 minutes are associated with better outcomes so the procedure should not await 4 minutes with a view to delivery by 5 minutes as traditional teaching has taught (PROMPT 3rd edition 2017). Preparations for birth are therefore required the moment that a cardiac arrest is declared. The perimortem section should be performed where resuscitation is taking place and not delayed by moving the woman. The gravid uterus of more than 20 weeks gestation impairs venous return and reduces cardiac output secondary to aortocaval compression. Delivery of the fetus and placenta reduces oxygen consumption, improves venous return and helps both chest compressions and ventilation. It is not performed for the benefit of the baby but it may survive and so a paediatrician should be called at viable gestations. CPR should be continued throughout the procedure (New 2017).

If resuscitation is successful, the abdomen should be packed and the mother moved to an operating theatre for closure. (New 2017).

2.8 Maternal Collapse in the community setting (New 2017)
On commencement of intrapartum care a risk assessment should be completed by the attending midwife and any risk factors identified. For women with risk factors identified the findings should be discussed with the women and a plan of care documented in the woman’s notes with; advice/arrangements for transfer to hospital for medical opinion made. A full set of maternal observations (Temperature, Pulse, Blood pressure, Respiratory Rate) will be completed in this risk assessment. These observations must be plotted on a MEOWS chart.

In the community oxygen saturations will not be recorded. In the event of the MEOWS triggering ≥ 5 or 3 in one parameter, the woman must be transferred into the acute unit.

Initiate immediate Basic life support according to the Resuscitation Council (UK) guidelines ensuring that the uterus is displaced manually (if adequate personnel are available) rather than by lateral tilt so that venous return can be maintained (New 2017).
2.9 Local arrangements for Ambulance Transfer (New 2017)

- The midwife should phone 999 or give instructions for someone else to phone 999 for an ambulance; request a Paramedic and state ‘Emergency’ maternity transfer. Please refer to SWASFT maternal ambulance transfer (Appendix 3)
- This is a category 1 call
- Ask for confirmation that the call has been made and the estimated time of arrival (ETA) taking a reference number
- If calling from the Isles of Scilly, the midwife should phone 999 and request transfer by the Search and Rescue Helicopter (The Isles of Scilly GP should also be informed)
- The Isles of Scilly Midwife or GP will transfer the patient to the mainland and stay with the patient until she has handed over the care to a member of staff on Delivery Suite. Continue to follow the Maternal transfer by ambulance clinical guidance. (Appendix 3).

2.10 Specific conditions to consider in differential diagnosis

2.11 Amniotic Fluid Embolism (New 2018)
This is a rare obstetric event with an estimated incidence in the UK of 1.8 cases per 100,000 maternities. Maternal mortality historically has been as high as 85% with half the deaths occurring in the first hour; with present day Critical Care Unit (CCU) management it has come down to 26.4%.

Risk Factors
- Multiparity or very fast labour
- Abruption
- Intrauterine fetal demise.
- Oxytocin hyper stimulation or prostaglandin induction of labour.

Clinical Presentation
- Respiratory distress, hypoxia with cyanosis, may have a cough and frothy sputum
- Restlessness, distress, panic, nausea and vomiting
- Feeling cold, light headedness, a feeling of pins and needles in the fingers
- Seizures in up to 30% of patients
- LVF and unexpected cardiovascular collapse
- Rapid progression to DIC predominantly manifested by uterine haemorrhage, coma and death

Specific Tests
- Fetal squames, fat, mucin or keratin: Send a clotted sample to Histology and ask for cytokeratin staining on clot to be performed.

Remedial actions
- DIC: Administer fresh frozen plasma and platelets as indicated by coagulation and liaise with haematology
- Liaise with CCU consultant or outreach team
2.12 Cardiovascular Events
2.12.1 There should be a low threshold for further investigating pregnant or recently
delivered women (especially with any of the risk factors below) with:
- severe chest pain
- chest pain that radiates to the neck, jaw, back or epigastrum
- chest pain associated with other features such as agitation, vomiting or
breathlessness, tachycardia, tachypnoea or orthopnea.
NB The presence of a wheeze may not necessarily indicate asthma and may be a
feature of heart failure and management of suspected cardiovascular events will be
directed by a cardiology specialist.

2.13 Uterine Inversion
Uterine inversion is uncommon and may result from mismanagement of the third
stage occurring when traction on the cord is attempted before uterine contraction and
placental separation are established.

2.13.1 Presentation
- Severe lower abdominal pain
- Cardiovascular collapse
- Haemorrhage
- Shock - the degree of shock is usually out of proportion to the amount of blood
lost and may be associated with a low pulse rate and hypotension.

Prevention is better than cure and traction should never be exerted on the cord when
the uterus is still relaxed and counter traction should be applied on the uterus when it
finally contracts and traction is finally exerted on the cord.
Acute Uterine Inversion Management Algorithm

Call for HELP
Senior Midwife, experienced obstetricians and anaesthetist
State the problem

Immediate Actions
- Lie flat
- Give facial oxygen 15 litres/minute
- Inform woman/partner clearly and calmly
- Alert theatre team
- Respiratory rate, heart rate, BP and O₂ saturations

Resuscitation
- Site 2 large venflons (grey)
- Send bloods for FBC/clotting/cross match 4 units
- Commence 2L crystalloid IV

Replacement of Uterus
- Attempt immediate manual replacement of uterus
- Consider transfer to theatre for analgesia if woman stable and no pain relief
- Inform consultant obstetrician
- Alert anaesthetist, ODP, theatre staff

Successful Replacement
- Uterine inversion is associated with atonic uterus in more than 90% of cases
- Commence Postpartum haemorrhage treatment e.g.
  - Give oxytocic bolus (IM Syntometrine or Syntocinon)
  - Commence oxytocin infusion (40 units Syntocinon in 500ml sodium chloride as per regimen)
  - Further oxytocics as required
- DO NOT REMOVE PLACENTA until in theatre

Unsuccessful Replacement
- Transfer to theatre (if not already there) for examination under anaesthetic (EUA)
- Consider uterine relaxants: GTN, SC terbutaline, GA
- Attempt replacement—manually or hydrostatic method

If replacement still unsuccessful
- Prepare for laparotomy—with consultant obstetrician
2.14 Uterine Rupture
This most commonly occurs in women with a uterine scar from previous LSCS or following uterine surgery such as myomectomy. Most uterine ruptures will occur during labour, but can be associated with instrumental delivery or manual removal of placenta. Rarely may it present with antenatal collapse.

2.14.1 Presenting symptoms and signs:
- Fetal heart rate abnormalities, typically starting with a fetal tachycardia, reduced variability followed by deep late decelerations
- Maternal tachycardia and hypotension
- Inco-ordinate uterine activity or slow progress in labour
- PV bleeding
- Haematuria
- Presenting part rising out of the pelvis
- Severe abdominal pain (may be masked somewhat by epidural anaesthesia)

2.14.2 Actions
- Seek Senior Obstetric and Anaesthetic opinion (Registrars and on-call Consultants)
- Stop Oxytocin infusion (if running)

2.14.3 Management
- MEOWS monitoring and resuscitation
- Request Obstetric haemorrhage pack
- Proceed to caesarean section (or laparotomy) after adequate resuscitation
- Deliver baby by extending rupture if necessary
- Repair uterus if possible and ensure bladder is not damaged
- Follow protocol for massive obstetric haemorrhage (Obstetric Haemorrhage)
- Antibiotics
- Consider CCU opinion depending on maternal status (to be discussed between Obstetric Consultant and Obstetric Consultant Anaesthetist)

2.15 Referrals - Guidance for staff on when to involve clinicians from outside the maternity service
Where women have complications other than common obstetric issues, specialist clinicians should be considered as a source of information and support. The Obstetrician leading the care should consider involving the following specialities if the clinical situation warrants it after discussion with the maternity team and Consultant on call (unless life threatening when direct referral can be made).

2.16 Documentation
Accurate documentation is essential. All staff involved in the provision of care should provide written:-
- Documentation of actions undertaken within the maternity notes
- Documentation of the staff in attendance and the time they arrived
- Documentation of involvement of clinicians outside the maternity service

2.17 Incident reporting
Any incident of maternal collapse, what ever the outcome, will be reviewed through the Patient Safety Meeting.
2.18 Compliance monitoring
Attendance at the PROMPT training will be monitored every 3 months by the Maternity Forum and an action plan developed and monitored if any deficiencies are identified (New 2017).

2.19 Roles and responsibilities (New 2018)
**Maternity Support Worker (MSW)**
- To obtain vital signs observations and record them on the MEOWS chart reporting to a named midwife any abnormalities detected (any observations that score 1 or above). MSW is NOT to complete the score by assessing ‘additional parameters’.

**Midwife**
- Commence BLS if required and in community setting arrange category 1 ambulance transfer
- To assess additional parameters of MEOWS and calculate the total score or undertake full MEOWS observations and score
- To escalate within the required timeframes following the MEOWS triggers table
- To ensure the escalation is followed appropriately and escalate further (to Outreach/CCU teams) if unable to obtain senior review and/or clear care plan within the 30 min timescale or if woman is deteriorating rapidly

**Obstetric team**
- To respond to the escalation as per MEOWS triggers table
- Doctors called to review patients with a MEOWS trigger should ensure that there is a clear patient review and time limited management plan in the medical notes and discussed with the midwife caring for the patient
- If the physiological parameters are accepted by the medical staff as appropriate/normal/acceptable for that individual patient then this should be clearly indicated in the midwifery and medical notes.
- If women deteriorate and become severely ill to coordinate involvement from the multidisciplinary team if required (Anesthetic Team, Outreach etc.)
- Regular Consultant involvement is needed in care of women who deteriorate and become severely ill

**Anaesthetic team**
- All severely ill women should be reviewed by multidisciplinary team involving the Anesthetists
- For the Consultant Anaesthetist to liaise with the ITU/HDU team if transfer is necessary
- To document care plans in maternal notes with the planned review times
3. Monitoring compliance and effectiveness

<table>
<thead>
<tr>
<th>Element to be monitored</th>
<th>Audit of adherence to guideline</th>
</tr>
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<tbody>
<tr>
<td>Lead</td>
<td>Audit midwife and Maternity Forum.</td>
</tr>
<tr>
<td>Tool</td>
<td>Audit midwife and Documentation Audit</td>
</tr>
<tr>
<td>Frequency</td>
<td>1% of notes during three year period or more frequent if need identified in Patient Safety management</td>
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<tr>
<td>Reporting arrangements</td>
<td>Report back to maternity forum</td>
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<tr>
<td>Acting on recommendations and Lead(s)</td>
<td>Action plan will be developed and leads appointment, monitoring of action plan at the forum</td>
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<tr>
<td>Change in practice and lessons to be shared</td>
<td>As per action plan</td>
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4. Equality and Diversity

4.1. This document complies with the Royal Cornwall Hospitals NHS Trust service Equality and Diversity statement.

4.2. Equality Impact Assessment

The Initial Equality Impact Assessment Screening Form is at Appendix 2.
## Appendix 1. Governance Information

<table>
<thead>
<tr>
<th>Document Title</th>
<th>Maternal Collapse In Pregnancy And Puerperium, Clinical Guideline 2.0</th>
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<tbody>
<tr>
<td>Date Issued/Approved:</td>
<td>14&lt;sup&gt;th&lt;/sup&gt; March 2018</td>
</tr>
<tr>
<td>Date Valid From:</td>
<td>14&lt;sup&gt;th&lt;/sup&gt; March 2018</td>
</tr>
<tr>
<td>Date Valid To:</td>
<td>14&lt;sup&gt;th&lt;/sup&gt; March 2021</td>
</tr>
<tr>
<td>Directorate / Department responsible (author/owner):</td>
<td>Rob Holmes – Obstetric Consultant</td>
</tr>
<tr>
<td>Contact details:</td>
<td>01872 252270</td>
</tr>
<tr>
<td>Brief summary of contents</td>
<td>Guideline for the care of maternal collapse in pregnancy.</td>
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<tr>
<td>Suggested Keywords:</td>
<td>Maternal, collapse,</td>
</tr>
<tr>
<td>Target Audience</td>
<td>RCHT</td>
</tr>
<tr>
<td>Executive Director responsible for Policy:</td>
<td>Medical Director</td>
</tr>
<tr>
<td>Date revised:</td>
<td>1&lt;sup&gt;st&lt;/sup&gt; March 2018</td>
</tr>
<tr>
<td>This document replaces (exact title of previous version):</td>
<td>Maternal collapse in Pregnancy and the Puerperium-Clinical Guideline V1.1</td>
</tr>
<tr>
<td>Approval route (names of committees)/consultation:</td>
<td>Midwifery Guidelines Group Obs &amp; Gynae Directorate Divisional Board</td>
</tr>
<tr>
<td>Divisional Manager confirming approval processes</td>
<td>David Smith</td>
</tr>
<tr>
<td>Name and Post Title of additional signatories</td>
<td>Not required</td>
</tr>
<tr>
<td>Name and Signature of Divisional/Directorate Governance Lead confirming approval by specialty and divisional management meetings</td>
<td>{Original Copy Signed} Name: Caroline Amukusana</td>
</tr>
<tr>
<td>Signature of Executive Director giving approval</td>
<td>{Original Copy Signed}</td>
</tr>
<tr>
<td>Publication Location (refer to Policy on Policies – Approvals and Ratification):</td>
<td>Internet &amp; Intranet ✓ Intranet Only</td>
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Related Documents:
- Resuscitation Council (UK). Resuscitation Guidelines 2010
- UKOSS 2017
- PROMPT 2017

Version Control Table

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<th>Date</th>
<th>Version No</th>
<th>Summary of Changes</th>
<th>Changes Made by (Name and Job Title)</th>
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<tr>
<td>12th January 2017</td>
<td>1.0</td>
<td>See additions (new 2017) in text</td>
<td>Rob Holmes Consultant Obs and Gynae</td>
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<tr>
<td>5th September 2017</td>
<td>1.1</td>
<td>Addition of collapse in the community setting. Ambulance transfer agreement</td>
<td>Trudie Roberts Maternity Matron Community</td>
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<tr>
<td>14th March 2018</td>
<td>2.0</td>
<td>Updated with CQC recommendations, see new 2018 in body of text</td>
<td>Maternity Guidelines group and Helen Odell, Safety and quality Improvement lead.</td>
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This document is to be retained for 10 years from the date of expiry.
This document is only valid on the day of printing

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## Appendix 2. Initial Equality Impact Assessment Form

*This assessment will need to be completed in stages to allow for adequate consultation with the relevant groups.*

<table>
<thead>
<tr>
<th>Name of the strategy / policy / proposal / service function to be assessed</th>
<th>MATERNAL COLLAPSE IN PREGNANCY AND PUERPERIUM – CLINICAL GUIDELINE</th>
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<tbody>
<tr>
<td>Directorate and service area:</td>
<td>Is this a new or existing <em>Policy</em>?</td>
</tr>
<tr>
<td>Obs &amp; Gynaecology Directorate</td>
<td>Existing</td>
</tr>
<tr>
<td>Name of individual completing assessment:</td>
<td>Telephone:</td>
</tr>
<tr>
<td>Rob Holmes</td>
<td>01872 250000</td>
</tr>
</tbody>
</table>

1. **Policy Aim***
   *Who is the strategy / policy / proposal / service function aimed at?*
   To provide guidance to obstetricians and midwives on the management of maternal collapse in pregnancy.

2. **Policy Objectives***
   To ensure evidence based advice and management of a pregnant woman declining blood products.

3. **Policy – intended Outcomes***
   Safe outcome for women and baby

4. **How will you measure the outcome?***
   Compliance monitoring

5. **Who is intended to benefit from the policy?***
   Women and new-born

6a **Who did you consult with***

<table>
<thead>
<tr>
<th>Workforce</th>
<th>Patients</th>
<th>Local groups</th>
<th>External organisations</th>
<th>Other</th>
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b. **Please record specific names of groups***
   Clinical Guidelines Group
   Obstetric and Gynaecology Directorate
What was the outcome of the consultation? | Guideline approved
---|---

### 7. The Impact
Please complete the following table. **If you are unsure/don’t know if there is a negative impact you need to repeat the consultation step.**

Are there concerns that the policy **could** have differential impact on:

<table>
<thead>
<tr>
<th>Equality Strands:</th>
<th>Yes</th>
<th>No</th>
<th>Unsure</th>
<th>Rationale for Assessment / Existing Evidence</th>
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<tbody>
<tr>
<td>Age</td>
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<tr>
<td>Sex (male, female, trans-gender / gender reassignment)</td>
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<tr>
<td>Race / Ethnic communities /groups</td>
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<tr>
<td>Disability - Learning disability, physical impairment, sensory impairment, mental health conditions and some long term health conditions.</td>
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<tr>
<td>Religion / other beliefs</td>
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<tr>
<td>Marriage and Civil partnership</td>
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<td>Pregnancy and maternity</td>
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<tr>
<td>Sexual Orientation, Bisexual, Gay, heterosexual, Lesbian</td>
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You will need to continue to a full Equality Impact Assessment if the following have been highlighted:
- You have ticked “Yes” in any column above and
- No consultation or evidence of there being consultation- this **excludes** any policies which have been identified as not requiring consultation. or
- Major this relates to service redesign or development
8. Please indicate if a full equality analysis is recommended.  

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>X</td>
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9. If you are **not** recommending a Full Impact assessment please explain why.

No areas indicated

<table>
<thead>
<tr>
<th>Signature of policy developer / lead manager / director</th>
<th>Date of completion and submission</th>
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<tbody>
<tr>
<td>Rob Holmes</td>
<td>14th March 2018</td>
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<table>
<thead>
<tr>
<th>Names and signatures of members carrying out the Screening Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Rob Holmes</td>
</tr>
<tr>
<td>2. Human Rights, Equality &amp; Inclusion Lead</td>
</tr>
</tbody>
</table>

Keep one copy and send a copy to the Human Rights, Equality and Inclusion Lead  
c/o Royal Cornwall Hospitals NHS Trust, Human Resources Department, Knowledge Spa,  
Truro, Cornwall, TR1 3HD

**This EIA will not be uploaded to the Trust website without the signature of the Human Rights, Equality & Inclusion Lead.**

A summary of the results will be published on the Trust’s web site.

Signed Sarah-Jane Pedler  
Date 14th March 2018
Appendix 3.

SWASFT AMBULANCE TRANSFER: MATERNAL and NEONATAL

The ambulance service provides a category 1 emergency response that will not be diverted to other incidents for patients who are in cardiac arrest or an immediately life threatening situation. Examples of situations requiring a category 1 response are:

- Active seizure/eclamptic fit
- PPH - significant uncontrolled bleeding with maternal compromise
- Delayed first and second stage labour with confirmed fetal compromise
- APH – significant blood loss/signs of abruption with confirmed maternal compromise
- Thick meconium with confirmed fetal compromise
- Cord prolapse
- Shoulder dystocia in which the baby has been unable to be delivered
- Neonatal resuscitation

In exceptional circumstances a woman may not meet the definition for a category 1 response but you may feel that a category 1 response is required e.g. PPH where immediate transfer from a birth centre/home is required. In these circumstances please apply the following procedure:

- Dial 999
- When asked what is wrong with the patient state the presenting condition; this will initially trigger a category 2 response
- When triage commences, advise the call taker that you require a category 1 response and you wish to speak immediately to a clinical supervisor
- Once transferred to the Clinical Supervisor explain the situation. Where it is agreed to be appropriate, the Clinical Supervisor will over-ride the system and confirm a response

The call sequence above is only to be used for those patients deemed to be suffering an immediate threat to life.

For all other emergencies, a category 2 (category 2) level ‘lights and sirens’ response will still be provided but may be diverted to more serious category 1 calls. Category 2 calls will not be diverted to lower level categories. Examples of situations given by SWAST requiring a category 2 response are:

- PPH – minimal bleeding and no patient compromise
- Thin meconium – no suspected fetal compromise
- Delayed first and second stage labour with suspected fetal compromise
- Uncomplicated fetal tachycardia
- APH – small amount of blood loss but no maternal compromise
- Retained placenta

You can also request an urgent ambulance response within 1, 2 or 4 hours for incidents not deemed category 1 or category 2.
The following examples provided by RCHT may be considered as urgent but not category 1 or category 2:

- Delay in progress of labour
- Maternal observations deviating from normal but woman asymptomatic and MEOWs score is 4 or less
- Meconium Liquor and birth not imminent
- Request for further analgesia
- Perineal repair requiring obstetric intervention where bleeding is no concern
- Small APH with no maternal compromise
- Retained placenta without significant blood loss
- Baby born in the community who did not meet the criteria for community birth*
- Baby born with minor abnormality not causing compromise but requiring paediatric assessment*
- Baby born IUGR requiring paediatric assessment*

*These babies can be managed appropriately in the community while you await the ambulance, making sure the baby is kept warm, infant feeding has commenced and the parents are advised appropriately.


Collapsed / showing no signs of life or respiratory arrest

Community 999
Shout for HELP and assess patient
Request cardiac arrest trolley with AED and
perimortum C/S pack

**Signs of life?**

**NO**

**Left lateral tilt**

Call 2222 and state "**Maternal cardiac arrest**" and request the arrest team, Obstetric registrar and an obstetric
anaesthetist.

**CPR 30:2 at a rate of 100-120 compressions a minute**
With oxygen and airway

Apply ECG pads /monitor

**Advanced Life Support**
When Resuscitation Team arrives

**Deliver baby as soon as it is clear there is no response to CPR**

Continue life support until successful or decision to discontinue

**Basic Life Support**
**CPR 30:2 if 2 people. Compressions only if single handed**

**Successful**

Stabilise Transfer – Delivery Suite or ITU