# All Wales Midwife-led care guidelines

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## Introduction

The All Wales Birth Centre guidelines were developed by a multi-disciplinary working group in 2006. The purpose of the All Wales Birth Centre guidelines was to provide standard guidance on midwifery practice in birth centres across Wales. Birth centres are specifically designated facilities where midwives as lead professionals care for women and babies during labour, birth and the postnatal period. The birth centre may be free standing or situated alongside an obstetric unit. The original guidelines written in 2006 were compatible with the National Institute for Clinical Excellence draft Intrapartum Guidelines for healthy women ( NICE 2007)

Before embarking on the detail of this guideline it is important for us to set out the philosophy behind midwife led care and the promotional of normal birth on which this guideline is founded. This information has been taken from the Maternity care working party consensus statement [2007] Why normal birth matters:

*"With appropriate care and support the majority of healthy women can give birth with a minimum of medical procedures and most women prefer to avoid interventions, provided that their baby is safe and they feel they can cope.... it is important that women's needs and wishes are respected and they should be able to make informed decisions about their care... Procedures used during labour which are known to increase the likelihood of medical interventions should be avoided where possible. A straightforward birth makes it easier to establish breastfeeding, helps get family life off to a good start, and protects long-term health."*

*"The Information Centre for the NHS in England has adopted a working definition for normal labour and birth which they call 'normal delivery'. The definition is: "without induction, without the use of instruments, not by caesarean section and without general, spinal or epidural anaesthetic before or during delivery"*

*"Policies for maternity care are different for the four countries of the UK. However, there is a shared emphasis on offering pregnant women more choice, with better access to community-based and midwife-led services. In England, Scotland and Wales there is also an explicit focus on facilitating normal birth and reducing interventions, partly in response to rising ceasarean section rates: For the majority of women, pregnancy and childbirth are normal life events requiring minimal intervention. These women may choose to have midwifery-led care, including a home birth. Birth environments (should be) regularly audited to ensure they optimise normality, privacy and dignity during labour and birth for the mother and birth partner(s).Studies have shown that women who are supported during labour need to have fewer pain killers, experience fewer interventions and give birth to stronger babies. After their babies are born, supported women feel better about themselves, their labour and their babies."*

[RCM, RCOG, NCT [2007] *Making normal birth a reality Consensus statement from the Maternity Care Working Party our shared views about the need to recognise, facilitate and audit normal birth.]*

The aim of these revised guidelines is to provide sound clinical governance framework to support midwives in their practice and thereby enhance the care of women, babies and their families. The guidelines also recognised the individuality of women, and were not meant to replace the knowledge, skills and clinical judgment of experienced health professionals.

These guidelines have any new recommendations from national organisations and have been re-named as All Wales Midwife-led guidelines.

## Background

Over the last decade there has been expansion in the number of birth centre facilities across Wales. Birth centres follow the overarching principles of health care strategy in Wales as outlined in the Designed for Life (WAG, 2005). During 2005 a group of experienced clinicians was set up to develop an all-Wales approach to operational standards for birth centers: All Wales Birth Centre Guidelines [2006]. Since then NICE (2007) have recognised the need for structured and robust clinical governance structures within birth centres when they) published the Intrapartum Care, care of healthy women and their babies during childbirth guidelines in September 2007.

In November 2011 the Department of Health in England published the results of the 'Birthplace Study'. This study reviewed the place of birth for healthy women experiencing a straight forward pregnancy and in terms of adverse perinatal outcomes for babies. This study found that there was no difference between consultant obstetric units, along side midwifery led units or free standing birth centres. The study did conclude that when healthy women gave birth in a consultant obstetric unit they were more likely to have interventions and less likely to achieve a normal birth.

The only statistical difference found in this study was the perinatal mortality rate was increased in women giving birth at home with their first baby. There was a significant increased probability that women having their first baby may need transfer to an obstetric unit compared to women experiencing subsequent births.

A recent Cochrane review comparing midwife led care models to other models of care found that Midwife-led continuity of care was associated with several benefits for mothers and babies. The main benefits were a reduction in the use of epidurals, fewer episiotomies or instrumental births. Women's chances of having a spontaneous vaginal birth were also increased. The review

concludes that most women should be offered midwife-led continuity models of care, although caution should be exercised in applying this advice to women with substantial medical or obstetric complications. [Sandall et al 2013]

At all times it must be clear who is the **lead professional** co-ordinating a woman's care (WRP 2004). Following any referral for additional care, the lead professional should document the management care plan in the woman's hand held records. When the deviation from norm has resolved and no further additional care is required the woman should be referred back to her midwife who will resume responsibility as the lead professional.

The lead professional should ensure that all aspects of care have been discussed with the woman and that discussions have been documented with clear guidance on the action required. If a woman decides not to accept the offer of referral for additional care, the midwife will continue to provide midwifery care. The midwife should discuss the plan of care with a Supervisor of midwives (SOM). The accountability will remain with the name midwife to plan the woman's care but the SOM can support this process. The documentation and management plan should clearly reflect the woman's decision and the information given to her to make this decision.

## Best Practice Points

- All women should be risk assessed at booking to determine appropriate lead professional and place of birth and any specific needs or risks identified and documented in the women's Antenatal hand-held record.
- Women without risks should be offered midwife-led care and a midwife –led setting for birth (NICE 2008; NPEU 2011).

**Uncomplicated pregnancies**

- For women without risk factors (low-risk women) the appropriate lead professional is the midwife.
- Antenatal care for low-risk women should be provided in accordance with NICE guidelines for routine antenatal care. NICE [2010]
- In planning **place of birth** women should be informed that research suggests positive outcomes for women who choose to birth their babies in midwife-led environments:-

- **low-risk** women planning birth in a midwifery-led unit and **low-risk multiparous** women planning birth at home experience fewer interventions than those planning birth in an obstetric unit with no impact on perinatal outcomes.[NPEU 2011]
- **Low-risk primiparous women** have a greater chance of requiring intrapartum transfer than **low-risk multiparous women.** [NPEU 2011]
- **Low-risk women** who birth in a birth centre type environment report higher levels of satisfaction with their birth experience as they report feeling informed, listened to and supported in their decision-making [Overgaard et al 2012]

**Midwives are responsible for keeping up to date with the latest research outcomes and providing women with all the relevant information they require to make an informed choice re. Preferred place of birth.**

- Risk assessment should be repeated as necessary throughout pregnancy and any new risks arising should be documented in the hand-held record and an individualised management plan recorded. Appropriateness of current lead professional and planned place of birth should be considered at any time new risks are identified and should be included in the documentation.
- Re-assess 'place of birth' setting at 36 weeks and <u>at the start of labour.</u>
- Referral by the Midwife should be by referral letter or phone call to the specialist depending on urgency. This should include any relevant information from the GP.
- If a referral is URGENT a telephone call should be made to ensure message is received initially by appropriate professional using the SBAR format.
- Once this URGENT referral has been made the midwife must make sure the woman has been seen by the appropriate person.
- Referral back to midwife-led care from Consultant-led care should be clearly documented in the hand-held notes along with a management plan.

## Timing of Risk Assessments

- Booking
- Antenatal appointments
- Antenatal admissions
- On commencement and throughout labour
- Postnatal contacts.

## Antenatal

### Antenatal Risk Assessment

### Timing of Antenatal Risk Assessments

- **Booking:** There should be a risk assessment at booking to identify any specific needs or risks taking into account the woman's physical, social, psychological, and emotional needs, in order to assign the **appropriate lead professional** for her pregnancy care and to plan for the most appropriate **place of birth** The question of domestic abuse should also be raised at booking (CMACE 2011) in accordance with local guidance.
- **Antenatal appointments and admissions:** Risk assessment should be repeated as necessary throughout pregnancy and any new risks arising should be documented in the hand-held record and an individualised management plan recorded if applicable. In the light of any new risk factors a review of **lead professional** and **place of birth** should be documented.
- **36 weeks:** Repeat **place of birth** risk assessment at 36 weeks and at any other time that risk factors develop and update the hand-held notes.
- **On commencement of labour and throughout labour**

  Women should be reassessed when they commence in labour for any new risk factors and this should be a continual process throughout labour.

**Women with risk factors**

- Women with risk factors should generally be recommended for obstetric-led care. See appendix 1 NICE criteria. NICE [2010]

**Obtaining further information regarding previous pregnancies from health records. With consent from the women for data sharing.**

- If the booking assessment indicates a need for further information from other health care professionals, e.g. the GP, the midwife should ensure that a request for information is followed up, if necessary by telephone. (CMACE 2011).
- If the woman has had previous births in other maternity units, if the midwife requires additional clarification and details of previous pregnancies e.g. high risk pregnancy, then he/she should write to the hospital that provided care to get copies of the pregnancy details as required to ensure a full review is undertaken, or alternatively request a report on care provided.

## Process for Antenatal Referral

Midwives may be required to take a flexible and individualised approach to the delivery of care. Midwives should ensure they make appropriate and timely referrals to other professionals within a multi-disciplinary team appropriate to the individual's needs. Midwives should advise GP and health visitors of women identified as having complex social needs.

The midwife can refer at any stage to a consultant obstetrician for advice. The midwife should clearly document the reason for this referral in the appropriate section of the hand-held notes.

**Following review**: The obstetric team should clearly document in the hand-held record whether the woman is to remain under consultant led care or be referred back to midwifery led care, along with any antenatal clinic follow up if necessary.

- The obstetrician will either:

  a) Give advice and the woman will remain under Midwifery Led Care

  or

  b) Recommend change of lead professional to Consultant Led Care.

In either instance a clear individualised management plan should be documented in the appropriate section of the hand-held notes.

## When a Woman Declines Referral

There may be circumstances when a woman does not wish to be referred to obstetric care despite professional advice. In this case, ensure the woman understands the reason for referral and document the discussion. Inform the and the obstetrician that referral has been declined. This does not prevent a midwife from seeking professional advice from a consultant with regard to management of risks for the individual. Discussing the issues and seeking support with a SOM may be helpful for the midwife

## Normal Labour and Birth

The World Health Organisation defines normal birth as spontaneous in onset, low-risk at the start of labour and remaining so throughout labour and delivery. The infant is born spontaneously in the vertex position between 37 and 42 weeks of pregnancy. After birth mother and infant are in good condition (World Health Organisation, 1998).

All women receiving midwifery-led care during labour should follow the All Wales Clinical Pathway for Normal Labour (WG 2013), about which they should have received information at 30 - 36 weeks gestation.

**Criteria for midwifery-led care in labour**

Please refer to NICE [2007] as specified in the revised All Wales Clinical pathway for normal labour (2013) but should include

- Normal pregnancy without complications
- Labouring at Term ($37+^{0}$ to $41+^{6}$ completed weeks)
- Singleton pregnancy with cephalic presentation

## Use of birthing pool in labour:

(Adapted from the Royal College of Obstetricians and Gynaecologists/Royal College of Midwives Joint Statement No 1 (April 2006))

For women labouring in water, the temperature of the woman and the water should be monitored hourly to ensure that the woman is comfortable and not becoming pyrexial. The temperature of the water should not be above 37.5°C. [NICE 2007]

- Available evidence report large discrepancies whether of not the water temperature should be measured at regular intervals and therfore it would be difficult to agree strict temperature restrictions. It may be of more

benefit to allow women to regulate the pool temperature to their own comfort and encourage them to leave and re-enter the pool in the first stage of labour as and when they wish. The woman's temperature must be recorded during the labour.

- Midwives should ensure that the ambient room temperature is comfortable for the woman and should encourage her to drink to avoid dehydration.
- Cord clamps should be readily available and midwives need to be alert to the possibility of occult cord rupture and be sensitive to any undue tension on the cord (Anderson, 2000).
- Monitoring of the fetal heart using underwater Doppler should be standard practice, in line with the All Wales Clinical Pathway for Normal Labour (WG, 2013).
- If there are any concerns about maternal or foetal wellbeing, the woman should be advised to leave the birthing pool and an opinion from an obstetrician or other suitably qualified person should be sought in the usual manner.
- There needs to be a locally agreed procedure for getting a woman out of the pool, should she become compromised, and all staff likely to be caring for the woman in the room must be familiar with the procedure and should practice it regularly in emergency drills.
- If the woman raises herself out of the water and exposes the foetal head to air, once the presenting part is visible, she should be advised to remain out of the water to avoid the risk of premature gasping under water.
- All birthing pools and other equipment (such as mirrors and thermometers) should be disposed of or thoroughly cleaned and dried after every use, in accordance with local infection control policies.
- Disposable sieves should be made available to ensure that the pool remains free from maternal faeces and other debris.
- Local information and guidelines regarding prevention of legionella build up in water supply from seldomly used pools should be obtained from local NHS trust estates and should be adhered to.
- Midwives should use universal precautions and follow local trust infection control guidelines.

## Midwifery Skills and Training for water births

- Midwives should discuss antenatally the use of immersion in water in labour with all women in a low-risk category, as part of their overall discussions regarding options, and information leaflets should be available. It is important that information on water birth is conveyed to all women in a form they can understand and in a culturally sensitive fashion, to ensure parity of access to quality services.

- All midwives should ensure that they are competent to care for a woman who wishes to have a water birth and have a good understanding of the basic principles of caring for a woman in labour, and should make themselves aware of local policies and guidelines. Apart from emergency drills, training should also include emergency management of cord rupture, including cord clamp, at birth (Grunebaum et al, 2004).

- Midwives, managers and supervisors of midwives should ensure that training in caring for a woman who wishes to have a water birth is undertaken by midwives who undertake intrapartum care, in order to increase choice for women and promote normality and ensure quality care (NMC, 2012).

## Inter-Professional Working

It would not be anticipated that medical staff would be called to attend a woman or baby in a birth centre but rather, in the event of a deviation from normal progress, the woman and /or baby would be transferred to a hospital consultant–led delivery suite as soon as physically possible. However, in the event of an emergency arising in a birth centre that is situated geographically close to the main delivery unit, Medical staff and other relevant personnel from the obstetric unit would normally be expected to provide emergency assistance for the birth centre. Arrangements should be established locally depending on the geographical environment and clinical judgment of how best to meet each woman's needs safely.

The aim of management in an emergency situation arising in a birth centre is to sufficiently stabilise the condition of the mother or baby to facilitate safe transfer to the delivery suite or neonatal unit. It would normally be expected that any professional groups who may be called upon in an emergency situation would be consulted in the planning and equipping of the birth centre.

## Emergency Maternal Transfer

All women who receive midwifery-led care during labour must be risk assessed. Risk assessment at the commencement of midwifery care should be recorded in Part 1 and Part 2/3 of the All Wales Pathway for Normal Labour. This process is ongoing and any deviation in risk status may result in transfer to a consultant-led Unit. All deviations from the pathway must be documented and it would be anticipated that in the event of exit from the pathway transfer to consultant- led care would be considered.

### Transfer for additional care in labour / postnatal period:

Local arrangements for communication between professional groups, including the ambulance service should be in place. Correct identification of mother and baby is essential. Women should be made aware of transfer distances and possible times for transfers during discussions regarding place of birth.

Wherever practical, the woman and baby should be transferred together. This includes situations in which the transfer is indicated for neonatal care other than resuscitation. A midwife should remain with the woman throughout the transfer process, including transfer by ambulance. It is unacceptable for the midwife responsible for providing care to a woman in labour to follow the ambulance in her car. If there is no space in the ambulance, the baby's father / birth partner has to travel to the consultant-led unit in his/her own car or in a taxi.

**The risks/benefits when considering transfer should be assessed bearing in mind the likelihood of birth during the transfer.**

**Criteria include:**

- Delay in first or second stage of labour (as defined by the All Wales Clinical Pathway for Normal Labour)
- Indication for continuous electronic fetal monitoring
- Significant meconium stained liquor (Dark green or black amniotic fluid that is thick or tenacious, or any meconium-stained fluid containing lumps of meconium)
- Inability to locate or adequately monitor fetal heart rate
- Non-reassuring fetal heart rate
- Maternal request for epidural pain relief
- Maternal pyrexia: 38.0$^{o}$C once, or 37.5$^{o}$C on 2 occasions 2 hours apart

- Offensive vaginal loss
- Suspected malpresentation or breech presentation diagnosed in labour
- Baseline observation including blood pressure any reading in yellow box on the partogram increase frequency and consider need to seek advice regarding transfer. Recordings in the red box – the pathway should usually be exited and transfer initiated. [NLP 2013]
- Obstetric emergency – cord presentation/prolapse, intrapartum haemorrhage, postpartum haemorrhage > 500mls or any amount that requires additional treatment, severe fetal distress, maternal or neonatal collapse
- Retained placenta
- Third/Fourth Degree or other complicated perineal trauma at this birth for suturing

Midwives must make timely referrals to consultant-led care if there are any deviations from normality (NMC 2012: Midwives Rules & Standards). If a woman is unbooked, it is advisable to transfer care to the consultant unit if time allows.

## Transferring women from community settings into hospital

There are various ways in which a midwife may choose to transport a woman into a consultant led unit during labour or in the early post birth period if required. If an ambulance crew is requested to attend a birth situation the midwife must remember that whilst the two roles are complementary she remains the lead professional for the woman's care.

### When to transfer

Transfer into hospital will be advised and encouraged for all women whose condition results in variances that lead to discontinuation of the All Wales Clinical Pathway for Normal Labour.

Women with known risk factors who are choosing to give birth against advice in community settings such as home or a free standing birth centre should be advised and encouraged to transfer into hospital should any added risks develop during the labour or the labour deviate from the expected norm.

### Appropriate transport for transfer

**Woman's own transport**

There will be very few circumstances when it would be appropriate to elect to transport a woman into hospital in her own vehicle. Professional judgement is required as to when this would be appropriate and midwives must remain accountable for their decision in line with NMC rules (2012).

## Ambulance transfer

**Requesting emergency transfer:**

An emergency transfer should be requested where there is an immediate risk to life for the mother or baby.

In order to arrange an emergency transfer a midwife should **dial 999** in the same way as the public access the service.

Calls received via 999 are prioritised based on the information gathered by the call taker. Calls can be prioritised as red or green affording a response time target of 8 minutes for a red call and 30 minutes for a green call. (Appendix 18)

The priority of a call is determined by the answers given by the caller to questions asked by the Welsh Ambulance Services NHS Trust (WAST) call taker. It is therefore vital that when an ambulance transfer is requested that all of the relevant information is known by the person making the call. The questions which will be asked on a caller requesting an emergency transfer will be as follows:

- The reason for the admission
- If an “obstetric emergency” exists
- If the clinician is with the patient (and if so, if an Defibrillator is present)
- If the condition presents an ‘**immediate**’ threat to life

Depending upon the answer to these questions, the women may receive an 8 minute, 30 minute or 1 to 4 hour response

**Requesting an urgent transfer.**

Staff requiring a transfer in a non life threatening situation should ring

Emergency Medical Service (EMS) control for their area on:

North Wales = 01248 689089

Central and West Wales = 01267 225760

South Wales = 01633 626118

[Local agreement should be established based on professional judgement when this would be appropriate for midwifery calls and which number to ring for each area.]

In emergency situations ambulance crews will normally only transfer women to the nearest District General Hospital providing obstetric support. This may not be the hospital at which the woman has booked for care or to which she would prefer to transfer to and this should be discussed with the woman in the antenatal period.

The midwife should accompany the woman in the ambulance and remains the lead professional responsible for care.

The midwife should familiarise herself with local arrangements for enabling her to return to the woman's home/stand alone birth centre where she will need to collect her car/home birth van. WAST is unable to provide this service and local organisational arrangements need to be in place.

**Air ambulance**

In extreme circumstances it may be appropriate to transfer by air ambulance. This decision would be undertaken in conjunction with Ambulance Control.

The transportation of labouring women is not safe in the Welsh Air Ambulance (WAA) helicopters. This is due to the position of the woman on the aircraft, it is not possible to supervise or assist a birth during flight. Therefore, air ambulance transport must only be considered following delivery of the placenta.

These helicopters can be fitted with the babypod incubator for safe baby transport on the aircraft stretcher.

**Transferring both mother and baby in the same ambulance**

In the United kingdom the law dictates that all personnel, be it mother or baby, must be securely strapped in the ambulance.

All ambulances in Wales carry a 'Unwin Transport Blanket' so babies can be safely secured on a stretcher. All ambulances in Wales have three seats and therefore can accommodate both a midwife and ambulance personnel. At this present time there isn't a standard 'car seat' which can be securely fastened into the interior ambulance seats if the mother is on the stretcher.

If the mother is being transferred after the birth and she is unable to sit on a seat, and the baby can't be secured in the front seat of the ambulance, he/she will need to be transferred separately as per local requirements.

## Emergency Neonatal Transfer

**The preferred aim is to transfer in utero, reducing the need for emergency transfer of the baby following birth**.

The midwife must be able to facilitate transfer of the baby from a free standing birth centre or home immediately upon arrival of the ambulance. Please see appendix 17 for neonatal reasons for transfer.

If transfer out from a birth centre or home is indicated, there must be immediate communication using the SBAR format with consultant-led unit / neonatal unit. The clinical situation must be assessed and help summoned from midwives in the community if required.

Inform neonatologist and/or obstetrician and/or senior midwife and/or anaesthetist in the consultant-led unit, if there is any deviation from normal in the maternal or fetal condition. **Safety of mother and baby is paramount.**

| | Principle Aims of Action during Transfer |
|---|---|
| **1** | Identify problem and implement relevant guidelines / policy accordingly |
| **2** | Maintain appropriate documentation (record keeping) |
| **3** | Immediate urgent transfer by emergency **ambulance 999** from free standing birth centres or home |
| **4** | Keep woman and birthing partner informed of situation and action taken. |
| **5** | Liaise with midwife in charge, and obstetrician of at least registrar level (who will inform consultant obstetrician) at the consultant-led unit stating urgency of transfer OR<br><br>Liaise with neonatal SpR in charge of NNU who will inform neonatologist stating urgency of transfer. |
| **6** | Record timings of call for / arrival of ambulance crew.<br><br>At this point woman/baby will be ready for transfer. |
| **7** | Midwife to escort woman ensuring all appropriate documentation is taken.<br><br>Partner to accompany in ambulance or to follow in own transport / taxi<br><br>OR<br><br>Midwife to escort baby ensuring all appropriate documentation is taken. Partner to accompany in own transport/taxi.<br><br>Mother may be able to accompany in ambulance if baby does not require |

| | |
|---|---|
| | resuscitation.<br><br>Second ambulance may be required to transfer mother |
| **8** | Ambulance crew to confirm with radio control centre on way which consultant-led unit they are transferring to and the estimated time of arrival.<br><br>Where possible Birth centre staff to confirm with consultant-led unit that ambulance has left |
| **9** | On arrival at the consultant-led unit, midwife escorts the women to the appropriate area and hands over to the appropriate professional.<br><br>The escorting midwife will make a judgement of how she will be involved in the continuing care. |
| **10** | Birth centre midwife to return in allocated taxi [as per local agreements] to birth centre |
| **11** | All documentation must be completed. Forms for the most common emergencies can be found in the appendix of this guideline |

## Referal back to midwife led care during the postnatal period.

Once a woman or her baby has been transferred to consultant care full assessment and care plans should be in place including a risk assessment to ensure that any deviation from normal does not present any further risk prior to transfer back to midwife led care. During the postnatal period the most appropriate place for well women to receive care is in their own home and local arrangements should be agreed for postnatal care and suitability of transfer back to a midwife led unit for women for whom immediate transfer home is not an option.

## Management of Obstetric Emergencies in Midwifery led Units or Home

The aim of management in an emergency situation arising in a MLU or home is to sufficiently stabilise the condition of the mother or baby to enable safe transfer to the delivery suite or neonatal unit. See Appendices for obstetric emergency management guides.

All midwives are expected to attend mandatory updating sessions at least annually to maintain their skills in emergency situations. Forms for record of care should be used for contemporaneous documentation of procedures

during an emergency situation examples available in the appendices. Appropriate help should be summoned immediately.

## Home or birth centre birth against medical/ midwifery advice

There may be occasions when a woman may choose to give birth at home or at a birth centre against the advice of either a midwife or medical practitioner because her medical or obstetric history increases risk factors. In such circumstances the following guideline should be followed.

The overall aim must be to ensure that safe and effective care is provided to mother and baby whilst allowing women to make an informed choice on place of birth. It is important to build a trusting relationship partnership with the woman and her family. The rapid transfer of the woman into a consultant-led unit when the choice of birth environment is no longer advisable or appropriate should be agreed with the woman.

In the event of a woman informing a midwife that she wishes a home or birth centre birth and where she falls outside the criteria for low risk women the midwife should do the following:

- The SOM, lead midwife or consultant midwife should be informed and their support sought. This should be done at the earliest opportunity so that a relationship with the woman and her family can be established.
- The woman should be encouraged to engage with her named Consultant Obstetrician so that the multi professional team is involved in the management and care planning.
- For women who are not willing to engage with obstetric staff, the midwife should contact the consultant obstetrician for guidance on risks to each individual woman and developing care plans.
- Any consultations or discussions which take place should be documented fully in the handheld record which the woman may be asked to counter sign.
- For some 'high risk' women, a standard proforma eg Vaginal birth after Caesarean section in water may be available clearly identifying the recommended care package. If there is one available women should be asked to sign this and a copy filed within the maternity record.
- Clinical alert with a clear management plan should be completed and sent to all midwives who may care for the woman, lead midwife, Head of Midwifery and supervisor of midwives. This should be completed at

the earliest opportunity so any concerns midwives may have can be addressed.

- A care plan must be completed in the handheld records to maximise safety of both woman and baby. In the event of this care plan not being fulfilled woman to be encouraged to transfer to a main obstetric unit.
- Labour notes to be maintained in full, rather than the use of the normal labour pathway
- Send appropriate information to paramedics.
- Inform SOM and main obstetric unit and on call consultant obstetrician when the woman is in labour.
- During the post natal period midwives to offer the family an opportunity to discuss their care.

## Postnatal

### Risk assessment

Assess any relevant risk factors/special considerations arising in the antenatal, intrapartum and immediate postnatal period see Appendix 16 for criteria for referral to medical staff in the postnatal period. Ideally the assessment should take place in the antenatal period or as soon as possible after birth.
The risk assessment should include:

- Plans for the postnatal period
- Details of the specialist healthcare professionals involved in woman's care and that of her baby, including roles and contact details
- Document any risk factors/ special considerations for the post birth period.

## Process for referral in the postnatal period

If there are concerns in the postnatal period the midwife as the coordinating health care professional should refer to the obstetric team, GP or other team as appropriate.

## Management of an Unexpected Intrauterine or Neonatal Death.

### Intrauterine death:

In the event of a woman attending the birth centre where an intrauterine death is suspected, arrangements should be made to transfer her to the consultant-led unit, by initiating the emergency transfer policy. It is important to liaise with senior labour ward staff prior to transfer, ensuring that the situation is made clear.

Document all actions taken with outcomes and explain all events to the woman and her family.

Complete clinical incident forms.

### Stillbirth:

In the event of an unexplained stillbirth in a midwifery-led unit or at home unless there are obvious signs of maceration, the midwife will initiate the resuscitation policy and summon emergency ambulance response (999), to transfer the baby to consultant-led unit. It is important to liaise with senior labour ward staff prior to transfer, ensuring urgency of situation is clear.

A supervisor of midwives should be contacted immediately and the Head of Midwifery needs to be informed as soon as possible. Ensure all staff are supported and given opportunity to talk through the experience.

Document all actions taken with outcomes. Complete clinical incident forms.

## Clinical Governance Arrangements

These are the points of clinical governance, which are expected to be implemented in all areas where the midwife is the lead professional. This document will consider clinical risk management and audit processes, although local arrangements should be in place to address the other pillars of governance: education and training needs, involvement of consumers, health and safety and reporting structures.

Clinical governance structures should be implemented in all places of birth (NICE, 2007).

- Multidisciplinary governance structures should be in place to enable the oversight of all places of birth. The clinical governance group should include appropriate representation of the team involved in the provision of care locally, for example: representative from midwifery; representative from obstetric, anaesthetic and paediatric team (where they form part of the local service); supervisor of midwives; representative from local maternity services users forum and neonatal expertise.

- Professional midwives have a responsibility to keep up to date and develop their skills in order to maintain competency and experience.

- There should be agreed criteria for women planning to give birth in each setting.
- Information should be available to all women regarding local maternity services.
- Clear referral systems should be in place for midwives who wish to seek advice on the care of women whom they consider may have risk factors, but who wish to labour outside a consultant led unit. A senior member of the midwifery team, a consultant midwife or supervisor of midwives, should be identified to fulfil this role, and clear referral pathways need to be established.
- If an obstetric opinion is deemed necessary, this should be obtained from a consultant or an obstetrician with appropriate experience.
- All healthcare professionals should document discussions with women about their chosen place of birth in the hand-held maternity record.
- In all places of birth, the processes of risk assessment in the antenatal period and when labour commences should be subjected to continuous audit.
- Clear pathways and local agreements on the process of transfer to, a consultant-led unit should be established, including the continued care of women and their babies. There should be no barriers to rapid transfer when required in an emergency. These pathways should include arrangements for when the nearest consultant obstetric or neonatal unit is closed to admissions.
- If the emergency is such that transfer is not immediately possible, assistance should be sought from any appropriately trained staff available.
- Monthly figures of numbers of women booked, admitted to, being transferred from and giving birth in each place of birth should be audited. This should include maternal and neonatal outcomes.
- There should be continuous audit of the appropriateness of the reason for and speed of transfer (Transfer form included in the All Wales Clinical Pathway for normal labour 2013). This audit needs also to consider whether women who gave birth in the midwifery-led unit had indications for transfer and why that did not occur. Audit should also include time taken to see a specialist obstetrician and time from admission to birth once transferred.

- There should be locally agreed robust systems in place for incident reporting, investigating and identifying key lessons to be learnt. Themes and trends identified through this process should be acted upon promptly and effectively through midwifery management, midwifery supervision, training and service evaluation.

- The clinical governance group should be responsible for detailed root-cause analysis of any serious maternal or neonatal outcomes (for example, intrapartum related perinatal death or seizures in the neonatal period) and consider any ‘near misses’ identified through risk management systems.

- Data must be submitted to the national registries.

## Appendix 1: Assessment for Choosing Place of Birth

The following criteria are recommended to be used by the midwife to assess suitability for the woman's preferred **place of birth** (NICE, 2007). **This list is not exhaustive and midwives should use their clinical judgment.**

| Medical conditions | Obstetric Led Care | Planned Birth in Obstetric unit | Discussion re Place of Birth |
|---|---|---|---|
| **Cardiovascular** | | | |
| • Confirmed cardiac disease | ✓ | ✓ | |
| • Hypertensive disorders | ✓ | ✓ | |
| • Cardiac disease without Intrapartum implications | ✓ | | ✓ |
| **Respiratory** | | | |
| • Asthma requiring an increase in treatment or hospital treatment | ✓ | ✓ | |
| • Cystic fibrosis | ✓ | ✓ | |
| **Haematological** | | | |
| • Haemoglobinopathies – sickle cell disease, Beta thalassaemia major | ✓ | ✓ | |
| • History of thromboembolic disorders | ✓ | ✓ | |
| • Immune thrombocytopenia purpura or other platelet disorder or other platelet disorder or platelet count below 100,000 | ✓ | ✓ | |
| • Von Willebrand's disease | ✓ | ✓ | |
| • Bleeding disorder in the woman or unborn baby | ✓ | ✓ | |
| • Atypical antibodies which carry a risk of haemolytic disease of the newborn | ✓ | ✓ | |
| • Atypical antibodies not putting the baby at risk of haemolytic disease | ✓ | | ✓ |
| • Thalassaemia trait | ✓ | | ✓ |
| • Sickle cell Trait | ✓ | | ✓ |
| **Infective** | | | |
| • Risk factors associated with | ✓ | ✓ | |

| | | | |
|---|---|---|---|
| group B streptococcus whereby antibiotics in labour would be recommended | | | |
| • Carrier/infection of Human Immunodeficiency Virus | ✓ | ✓ | |
| • Hepatitis B/C with abnormal liver function tests | ✓ | ✓ | |
| • Toxoplasmosis – mother receiving treatment | ✓ | ✓ | |
| • Tuberculosis on treatment | ✓ | ✓ | |
| • Hepatitis B/C with normal liver function tests | ✓ | | ✓ |
| **Immune** | | | |
| • Scleroderma | ✓ | ✓ | |
| • Systemic Lupus Erythematosus | ✓ | ✓ | |
| • Non Specific connective tissue disorder | ✓ | | ✓ |
| **Endocrine** | | | |
| • Hyperthyroidism (Graves diseases) | ✓ | ✓ | |
| • Diabetes. | ✓ | ✓ | |
| • Unstable Hypothyroidism such that a change of treatment is required | ✓ | | ✓ |
| **Renal** | | | |
| • Abnormal renal function | ✓ | ✓ | |
| • Renal disease requiring supervision by a renal specialist | ✓ | ✓ | |
| **Neurological/Skeletal** | | | |
| • Epilepsy | ✓ | ✓ | |
| • Myasthenia Gravis | ✓ | ✓ | |
| | ✓ | ✓ | |

| | | | |
|---|---|---|---|
| • Previous cerebrovascular accident<br>• Neurological deficits<br>• Previous fractured pelvis<br>• Spinal abnormalities | ✓<br>✓<br>✓ | | ✓<br>✓<br>✓ |
| **Gastro-Intestinal**<br>• Liver disease associated with current abnormal liver function tests<br>• Crohns disease<br>• Liver disease with current normal liver function<br>• Ulcerative colitis | ✓<br>✓<br>✓<br>✓ | ✓ | ✓<br>✓<br>✓ |
| **Psychiatric**<br>• Psychiatric disorder requiring current inpatient care | ✓ | ✓ | |
| | | | |

| **Obstetric history** | **Obstetric Led care** | **Plan Birth in Obstetric unit** | **Discussion re place of birth** |
|---|---|---|---|
| **Previous Complications**<br>• Unexplained stillbirth/neonatal death or previous death related to intrapratum difficulty<br>• Previous baby with neonatal encephalopathy<br>• Pre-eclampsia requiring preterm birth<br>• Placental abruption with adverse outcome | ✓<br>✓<br>✓<br>✓ | ✓<br>✓<br><br>✓ | <br><br>✓<br> |

| | | | |
|---|---|---|---|
| • Eclampsia | ✓ | | ✓ |
| • Uterine rupture | ✓ | ✓ | |
| • Primary postpartum haemorrhage requiring additional treatment or blood transfusion | ✓ | ✓ | |
| • Retained placenta requiring manual removal in theatre | ✓ | | ✓ |
| • Caesarean section | ✓ | ✓ | |
| • Shoulder dystocia | ✓ | ✓ | |
| • Extensive vaginal, cervical or 3rd or 4th degree perineal trauma | ✓ | | ✓ |
| • History of a previous baby more than 4.5 kg | ✓ | | ✓ |
| • Placental abruption with good outcome | ✓ | | ✓ |
| • Stillbirth/neonatal death with a known non recurrent cause | ✓ | | ✓ |
| **Current pregnancy** | | | |
| • Multiple birth | ✓ | ✓ | |
| • Placenta praevia | ✓ | ✓ | |
| • Pre-eclampsia or pregnancy induced hypertension | ✓ | ✓ | |
| • Placental abruption | ✓ | ✓ | |
| • Anaemia haemoglobin **less than 8.5g/dl** at onset of labour | ✓ | ✓ | |
| • Confirmed intrauterine death | ✓ | ✓ | |
| • Induction of labour | ✓ | ✓ | |

| | | | |
|---|---|---|---|
| • Alcohol or drug dependency requiring assessment or treatment | ✓ | ✓ | |
| • Body Mass Index at booking of greater than 35kg/m2 | ✓ | ✓ | |
| • Malpresentation – breech or transverse lie. | ✓ | ✓ | |
| • Recurrent antepartum haemorrhage | ✓ | ✓ | |
| • Antenatal bleeding of unknown origin (single episode after 24 weeks of gestation) | ✓ | | ✓ |
| • Blood pressure of 140 mm Hg systolic or above or 90 mm Hg diastolic on 2 occasions | ✓ | | ✓ |
| • Clinically or ultrasound suspicion of macrosomia | ✓ | | ✓ |
| • Para 6 or more | ✓ | | ✓ |
| • Recreational drug use | ✓ | | ✓ |
| • Taking antidepressants | ✓ | | ✓ |
| • Age over 40 at booking (Nulliparous) | ✓ | | ✓ |

| | | | |
|---|---|---|---|
| **Fetal indications** | | | |
| • Abnormal fetal heart rate/Doppler studies | ✓ | ✓ | |
| • Oligo/poly-hydramnios on ultrasound | ✓ | ✓ | |
| • Small for Gestational Age fetus in this pregnancy (less than fifth percentile or reduced growth velocity on ultrasound) | ✓ | ✓ | |
| • Known fetal anomaly requiring neonatal assessment or treatment | ✓ | ✓ | |
| • Previous baby with Group B streptococci infection | ✓ | ✓ | |
| • Fetal abnormality | ✓ | | ✓ |
| **Previous gynaecological history** | | | |
| • Hysterotomy | ✓ | ✓ | |
| • Myomectomy | ✓ | ✓ | |
| • Cone biopsy or LLETZ (large loop excision of the transformation zone) | ✓ | | ✓ |
| • Fibroids | ✓ | | ✓ |
| • Major gynaecological surgery | ✓ | | ✓ |

## Appendix 2: Cord prolapse.

When a cord prolapse is diagnosed on vaginal examination, pressure on the cord must be relieved if it is still pulsating. Therefore the midwife who is performing the vaginal examination must not remove the examining fingers. The aim is to hold the presenting part off the cord particularly through a contraction.

**What is the optimal management in a community setting?**

Women should be advised, over the telephone if necessary, to assume the knee-chest face-down position while waiting for a hospital transfer. During the emergency ambulance transfer, the knee-chest is potentially unsafe and the left-lateral position should be used. All women with a cord prolapse should be advised to be transferred to the nearest consultant led obstetric unit for delivery, unless an immediate vaginal examination by the midwife reveals that a spontaneous vaginal delivery is imminent. Preparations for transfer should still be made. (RCOG 2008)

- Call for second midwife for urgent assistance
- Keep the woman and her family aware of the ongoing circumstances
- It is accepted practice to administer oxygen to the mother via a face mask at 4 litres per minute in cases of suspected fetal compromise. However there are insufficient or inadequate quality data upon which to base a recommendation for this practice (Enkin et al 2000)
- Document – ensure accurate records are made as soon as possible.

**Action:**

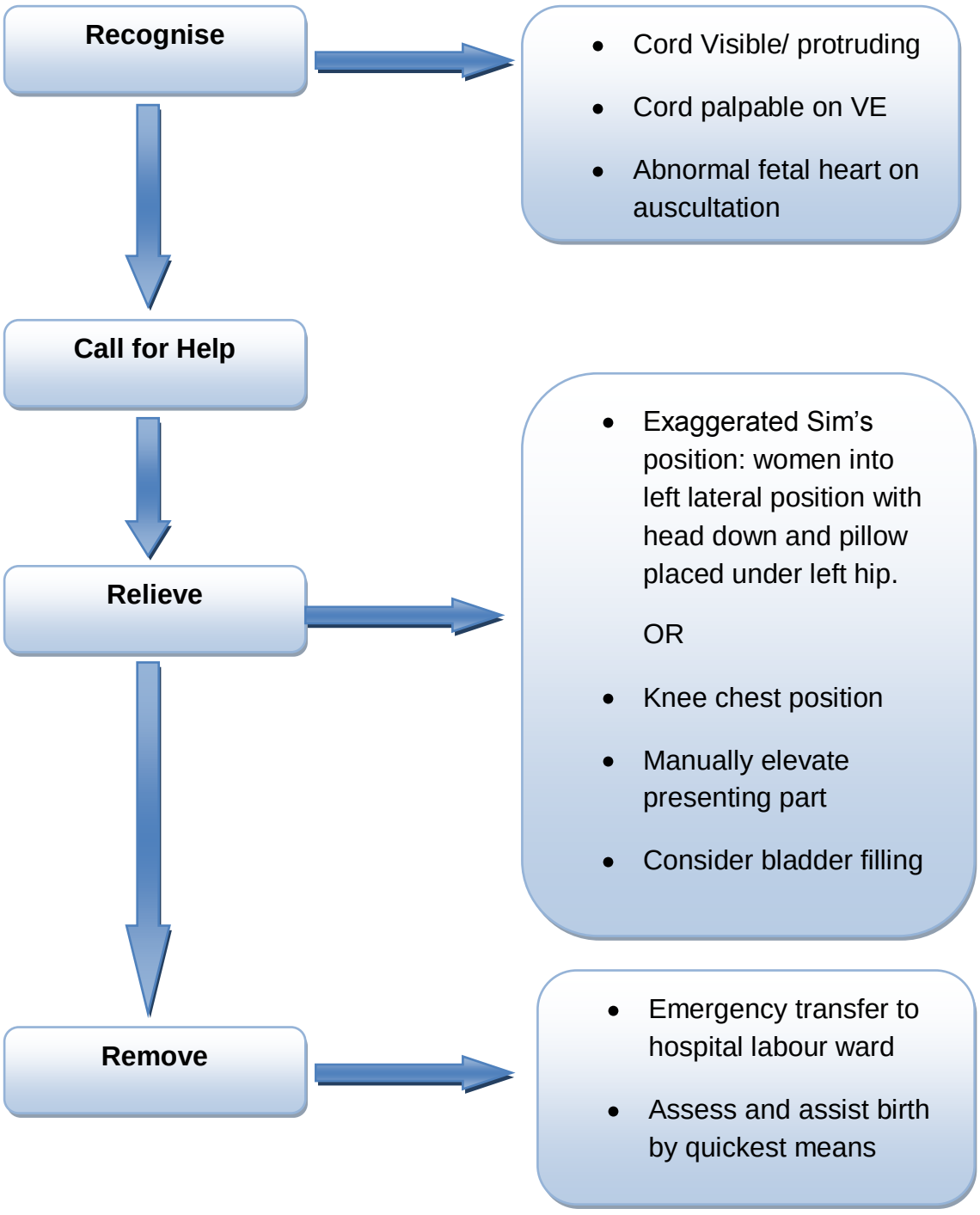



**Figure 1: Outline management of cord prolapsed [PROMT Manual Winter et al 2012]**

## Appendix 3: Shoulder Dystocia

Shoulder dsytocia is defined as a vaginal cephalic delivery that requires additional obstetric manoeuvres to deliver the fetus after the head has delivered and gentle traction has failed. Shoulder dystocia occurs when either the anterior or less commonly the posterior fetal shoulder impacts on the maternal symphysis, or sacral promontory, respectively. There is a wide variation in the reported incidence of shoulder dystocia. Studies involving the largest number of vaginal deliveries (34.000 to 267.00 reported incidences between 0.58% to 0.70% (RCOG 2012)

### Factors associated with shoulder dystocia

- Previous shoulder dystocia
- Macrosomia greater than 4.5kg
- Diabetes mellitus
- Maternal body mass index of greater than 30kg/m2

**Intrapartum**

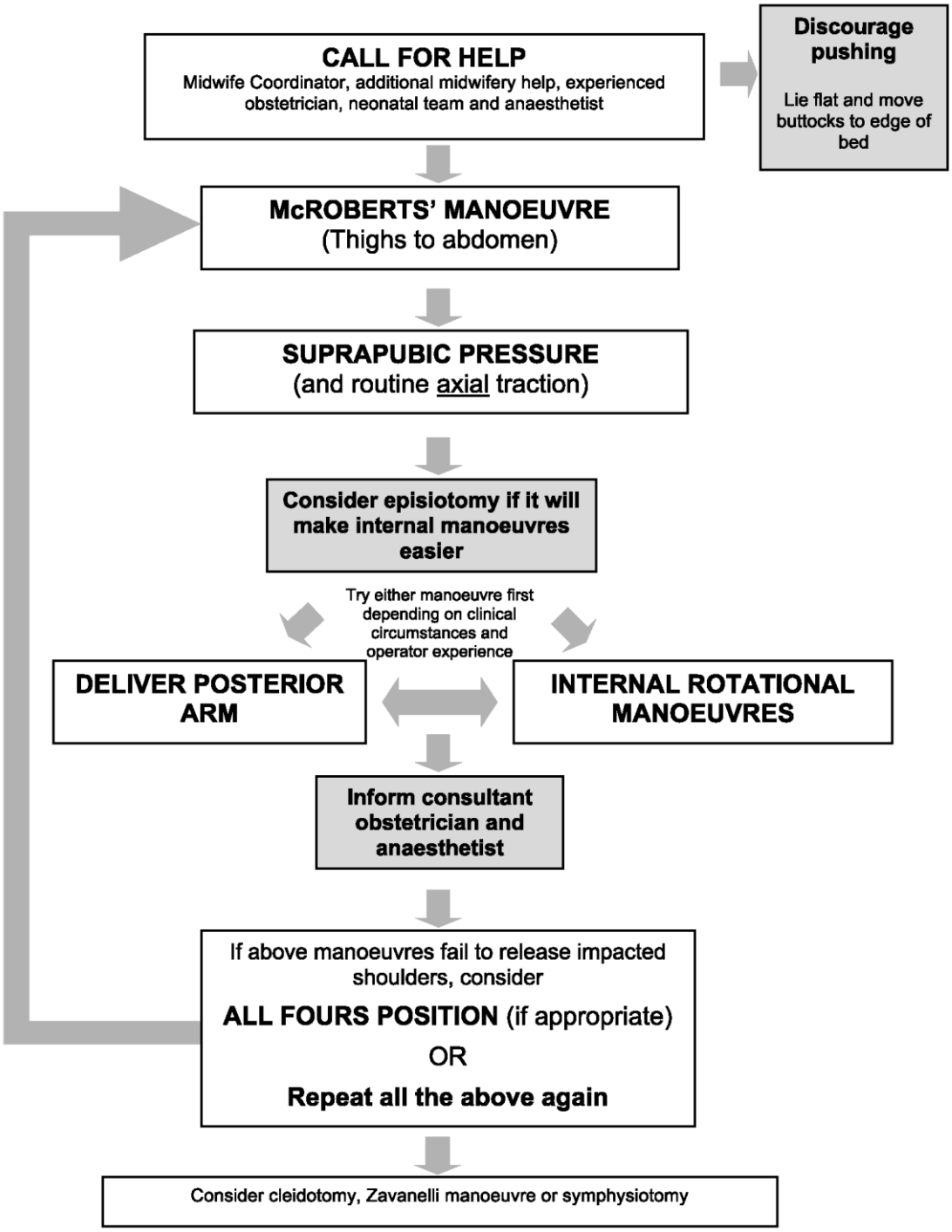
- Prolonged first stage of labour
- Secondary arrest
- Prolonged second stage of labour
- Oxytocin augmentation
- Assisted vaginal delivery (RCOG 2012)

Timely management of shoulder dystocia requires prompt recognition. The attendant health carer should routinely observe for:

- Difficulty with delivery of the face and chin
- The head remaining tightly applied to the vulva or even retracting (turtle-neck sign)
- Failure of restitution of the fetal head.
- Failure of the shoulders to descend.

Routine traction in an axial direction can be used to diagnose shoulder dystocia but any other traction should be avoided. Routine traction is defined as ‘the traction required for delivery of the shoulders in a normal vaginal delivery where there is no difficulty with the shoulders’. Axial traction is traction in line with the fetal spine i.e. without lateral deviation.

**Algorithm for the management of Shoulder Dystocia**

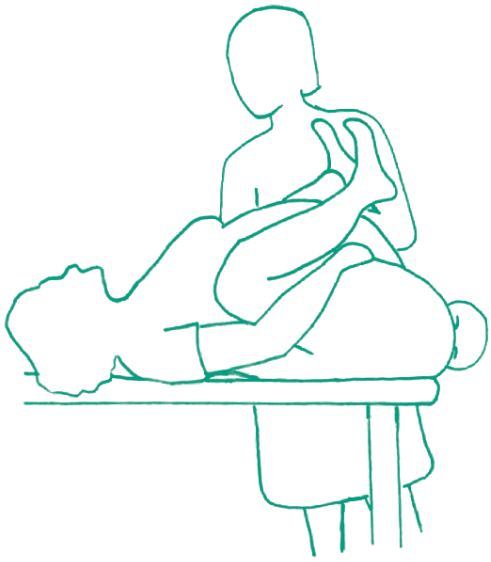



**Baby to be reviewed by neonatologist after birth and referred for Consultant Neonatal review if any concerns**

**DOCUMENT ALL ACTIONS ON PROFORMA AND COMPLETE CLINICAL INCIDENT REPORTING FORM.**

**Figure 2: Management of shoulder dystocia [RCOG Green top guidelines 2012]**

## Immediate action diagrams



The McRoberts' manoeuvre (from the SaFE study)

Suprapubic pressure (from SaFE study)

Delivery of the posterior arm (from the SaFE study)

[RCOG 2012]

### Internal manoeuvres:

The aim of Internal Manoeuvres is to rotate the fetal shoulders into a wider pelvic diameter traditionally know as woodscrew or Rubin's manoeuvres. This requires the birth attendant to insert the whole hand into the most spatial part of the sacral hallow by screwing up the hand as if to put on a bracelet described by Winter et al [2012] as the Pringles manoeuvre. Rotation is usually easier if the attendant presses on the anterior or posterior aspect of the posterior shoulder. Rotation into a wider pelvic diameter should be achieved. If pressure in one direction does not free the obstruction rotation in the opposite direction can be attempted [Prompt Manual Winter et al 2012]

All attendants must be prepared for PPH/neonatal resuscitation and follow guidelines for obstetric/ neo-natal transfer to consultant led unit.

Calling for emergency ambulance transfer should NOT be delayed, if the baby is delivered quickly and in good condition, then the paramedics can be cancelled. This is preferable to delaying the call and waiting extra precious minutes for transport to arrive.

The activation of the transfer policy in any emergency situation should NEVER be delayed – these are time critical incidents.

Documentation including accurate records of time is essential see appendix for example Performa.

## Appendix 4: Shoulder Dystocia documentation proforma

| *Addressograph* |
|---|
| |

**Date:** **Time:** **Person completing the form:**

| | **Name** | **Time** |
|---|---|---|
| Staff present at delivery of head | | |
| | | |
| Staff present at delivery of shoulders | | |
| | | |
| | | |
| Time of delivery of head | | |
| Time of delivery of shoulders | | |
| Time handed over to DGH/ consultant unit staff | | |

| **Procedures used to assist delivery:** These are not written in any order of importance but should be carried out as clinically indicated. | **By Whom** | **Time** | **Details Write or circle option used** | **Reason if not performed** |
|---|---|---|---|---|
| McRoberts | | | | |
| Traction | | | Routine Axial | |
| Subrapubic pressure | | | Maternal right/ left | |
| Episiotomy | | | | |
| Delivery of posterior arm | | | Right / Left | |
| Internal rotation | | | | |
| | | | | |
| All fours position | | | | |
| Other maneuvers tried/ repeated | | | | |
| | | | | |
| | | | | |

| **Assessment of baby** | **Details** | | |
|---|---|---|---|
| Apgars | 1 min | 5 min | 10 min |
| Resuscitation required | | | |
| Physical signs of potential injury | | | |

## Appendix 5: Major haemorrhage

### Antenatal / Intrapartum:

Bleeding in pregnancy or labour is abnormal, therefore any woman with antenatal bleeding should be transferred to the consultant-led unit.

**Action:**

- Call for second midwife to assist in stabilisation/ resuscitation and transfer
- Initiate transfer procedure – liaising with ambulance control and senior delivery suite staff at consultant-led unit, ensuring urgency of situation is clear. Ensure obstetrician of registrar level or above is aware of transfer.
- Keep the woman and her family informed of ongoing situation
- Insert an intravenous cannula and take blood for group and cross match to be taken to consultant-led unit on transfer of care
- Oxygen and optimum positioning
- Fetal heart auscultation whilst awaiting transfer
- Document all actions taken with outcomes
- Complete clinical incident form

### Postpartum:

Post partum haemorrhage may be defined as vaginal blood loss following the delivery of the baby, of usually in excess of 500mls but also any amount which will compromise maternal condition.

**Action:**

- Call for second midwife or more to assist in resuscitation and transfer
- Initiate transfer procedure – liaising with Ambulance Control and senior Delivery Suite staff at Consultant Led Unit, ensuring urgency of situation is clear. Ensure obstetrician of registrar level or above is aware of transfer.
- Assess airway, breathing and circulation. Give oxygen as necessary.
- Delivering midwife – check uterus is well contracted. Attempt delivery of placenta if still in situ

- Empty bladder, may need catheterisation, re-attempt delivery of placenta if uterus is well-contracted.
- If delivered - check placenta is complete.
- 'Rub up' the uterus to contract
- Administer an oxytocin preparation
- Consider bi-manual compression if placenta has been delivered and the uterus not contracted
- If well contracted, reassess cause of bleeding – tissue, trauma, thrombin
- Suture lacerations or episiotomy if these are the source of bleeding or apply direct pressure to enable transfer
- Second midwife
- Take blood for cross match and FBC, to be taken to the consultant unit on transfer of care, set up 2 IV infusions. Hartmanns or normal saline may be used. Consider giving 40 international units of syntocin 500mls of Hartmanns at 125ml/hour [RCOG Greentop guideline updated 2011].
- Monitor and record maternal condition – BP, pulse, fluid balance.
- Measure blood loss and if possible take it with you.
- Keep the mother and her family informed of ongoing situation
- Midwife to accompany woman during transfer in the ambulance
- Document all actions and outcome (Appendix 6)

## Appendix 6: Midwifery Care: Haemorrhage documentation proforma

Record of care to be filed in notes

Mother's Addressograph

| Date | Time | Signature |
|---|---|---|
| Baby born | | |
| Problem identified **Call for help -** 2nd midwife alerted / doctor / ambulance called | | |
| Assess abdomen, rub up a contraction consider cause Uterine **T**one, Retained **T**issue, **T**rauma, **T**hrombin | | |
| Oxytocics given: | | |
| Give oxygen | | |
| Placenta delivered | | |
| Placenta checked | | |
| Empty bladder | | |
| Check for lacerations | | |
| Oxytocics repeated | | |
| Venous access X 2 obtained | | |
| Take blood samples for FBC and cross match (Hand write label) | | |
| Syntocinon Infusion 40iu in 500ml Hartmans commenced | | |
| Bimanual compression (if placenta delivered) | | |
| Second intravenous infusion commenced | | |
| Ranitadine given | | |

| | Time | Time | Time | Time | Time | Time |
|---|---|---|---|---|---|---|
| Pulse | | | | | | |
| BP | | | | | | |
| Total estimated blood loss | | | | | | |

## Appendix 7: Imminent Breech Birth

If breech presentation is detected in labour – the transfer policy needs to be activated immediately, and if time permits the woman should be transferred to consultant-led unit.

### Imminent delivery:-

- Call for assistance if second midwife not in attendance (may need to call in other midwives to support transfer)
- Make arrangements for transfer– post delivery transfer may be needed by either mother or baby (Appendix 2)
- Remember many complications associated with vaginal breech deliveries can be attributed to operator interference –

**'Hands off the breech!'**

### Management: –

- Warm room ensure resuscitation equipment is prepared
- Deliver, if able to on a delivery bed with lithotomy poles, if not – at end or side of bed, semi upright or kneeling. In community settings the 'English Prayer or All fours position may be more appropriate (Woodward et al 2005) Evidence regarding optimum position is most often associated with the skill and experience of the birth attendant.
- Confirm cervix is fully dilated and catheterise to empty bladder.
- Episiotomy is recommended, to allow manipulations as required.
- Allow the woman to push at her own rate facilitating a steady descent. As buttocks distend the perineum, the anterior & posterior buttocks follow quite quickly. Meconium is not unusual at this stage
- Allow to deliver to thorax, with NO interference – **Hands off the breech.** Traction may cause head extension and displacement of the arms above the head.
- Allow legs to deliver spontaneously, or gently insert a finger behind the knee to enable knee flexion and thigh abduction.

- The arms will normally escape one by one, but gentle downward traction can be applied to the baby

  **BUT –** Only grasp baby around the pelvis

  Only if necessary apply traction at a downward 45 degree angle

  Baby's back to face upwards if woman is semi-recumbent, to allow head to enter the pelvis occipito anterior- if the woman is in an all-fours position, the baby's chest will be visible.

- Rotate body into the oblique until tip of scapula appears
- Sweep the anterior arm down across the chest and out
- Reverse manoeuvre for the other arm
- Allow the breech to hang until the nape of the neck or nose is visible. Do not attempt delivery of the head before this is visible.
- Delivery of head – by modified Mauriceau Smellie Veit manoeuvre
- Support the baby's body over the birth attendants arm
- One hand with one finger in the vagina placed on the occiput and one finger on each of the shoulders
- Other hand beneath the baby with 2 fingers on the maxillae – not in the baby's mouth
- Head is flexed through the pelvis by the occipito finger applying flexing pressure on the occiput, and the fingers on the maxillae applying pressure on the lower face
- The body is raised upwards in a large arc
- The baby's head is gently to expose the face and the rest of the head can be delivered slowly and placed on mother's abdomen

## Appendix 8: Breech birth documentation proforma

Mother's Addressograph

**Record of care to be filed in notes**

| Warm room, warm towels, prepare resuscitation area | CALL FOR HELP | |
|---|---|---|
| **Date** | **Time** | **Signature** |
| Breech presentation diagnosed/ 2nd midwife / other help alerted | | |
| Moved into appropriate position for delivery | | |
| Confirmed cervix to be fully dilated | | |
| Bladder emptied | | |
| Buttocks visible **Keep hands off baby** | | |
| Buttocks distending perineum | | |
| Consider / perform episiotomy | | |
| Buttocks delivered | | |
| Legs delivered | | |
| Apex rate | | |
| Arms delivered | | |
| Wait to see nape of neck | | |
| Mauriceau-Smellie-Veit manoeuvre | | |
| Head delivered | | |
| Other care | | |
| | | |
| | | |
| | | |

## Appendix 9: Uterine Inversion

Acute uterine inversion is a rare and unpredictable emergency. Shock and uterine replacement must be addressed simultaneously. There is a relatively small evidence base for how to treat this condition. [RCOG 2009]

94% of cases present with haemorrhage – with or without shock. The key to successful outcome is team work as resuscitation and replacement of the uterus needs to be undertaken simultaneously.

### Symptoms and signs include:

Severe lower abdominal pain during the second stage and maternal haemorrhage is usually present. Shock is out of proportion to the blood loss due to increased vagal stimulation. Placenta may or may not be in situ. Uterus may not be palpable per abdomen. The cervix or uterus may be visible at the introitus or a mass found on vaginal examination.

Once diagnosis has been made prompt uterine replacement is best done manually. [RCOG 2009]

**Flow chart to indicate action required.**

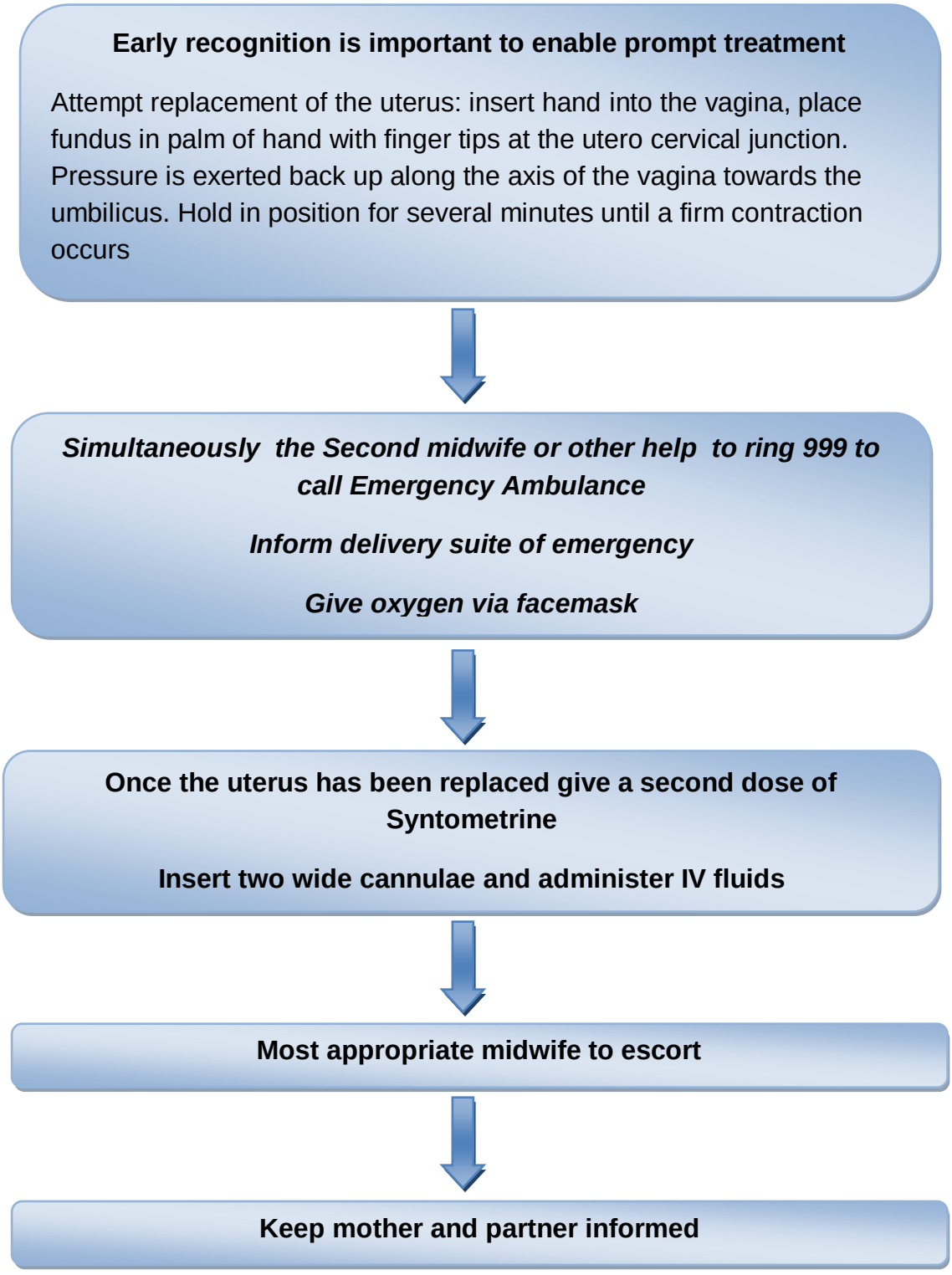



**Figure 3: Action for uterine inversion [Boyle 2011]**

## Appendix 10: Newborn Life Support

**Head in neutral position**

Use a well fitting face mask

Each breath 2-3 seconds duration at 30 cm $H^20$ for a term baby.

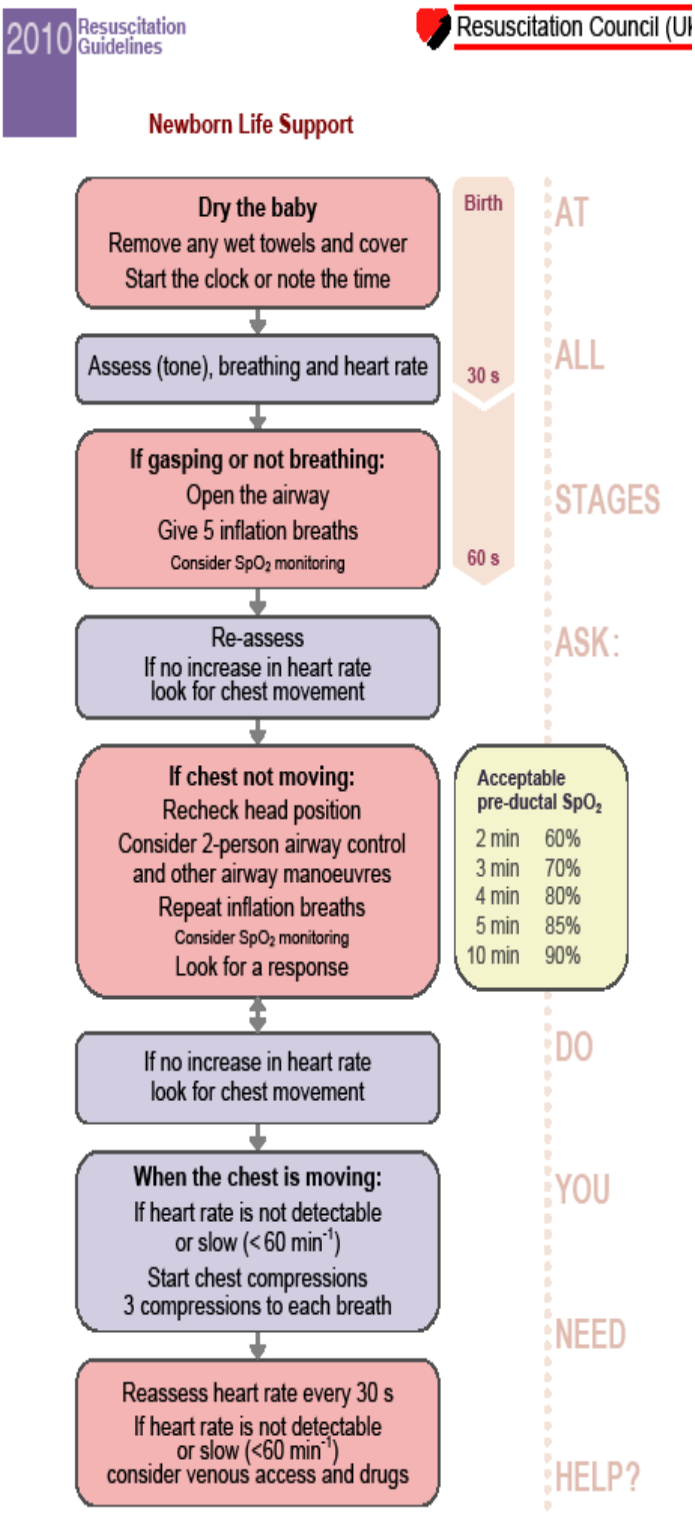
**Get help from a second person:**

to support the airway in a double jaw thrust,

or establish airway using an LMA (laryngeal mask airway)

**Chest compression**

Compression: ventilation ratio of 3.1




**If meconium present and**

**-baby breathing well**:

Do not suction airway

**-Baby floppy and not breathing well**:

Consider inspection and suction before inflation breaths.

**If breathing**:

Reassess heart rate and monitor baby.

**If heart rate is satisfactory or increasing:**

continue ventilation breaths at about 30/min until baby is breathing adequately.

**If the chest is still not moving**:

The airway is the problem.

**If the heart rate is increasing:**

Stop compressions

Continue ventilation breaths at about 30/min until baby is breathing adequately

**Figure 4Newborn Life Support Resuscitation guidelines 2010**

Also:

1. Reassure parents and keep them informed of action.
2. If possible double clamp the cord to enable blood gases to be taken (within 30 minutes).
3. Midwife will maintain appropriate documentation.
4. Midwife to contact neonatal unit to arrange transfer.
5. Ensure extra midwifery staff is available to offer support, arrange equipment for transfer.
6. Baby will require identification bands prior to transfer.

Ref: Resuscitation Council (UK)

## Appendix 11: Neonatal Resuscitation documentation proforma

*Affix maternal addressograph*

Date of birth:
Time of birth:
Time of cord clamp:

1. START CLOCK
2. DRY & WRAP (OR place in plastic wrap if preterm baby <30 weeks)
3. INITIAL ASSESSMENT AT BIRTH: please circle one in each row:-

| | | | | |
|---|---|---|---|---|
| ***Heart Rate*** | *<60* | *60 – 100* | *>100* | ***(Listen with stethoscope)*** |
| ***Breathing*** | *No breathing* | *Occasional gasp* | *Crying* | |
| ***Colour*** | *Pale / White* | *Blue* | *Pink* | |

| TIME | DOCUMENT RESUSCITATION NEEDED & TIME WHEN DONE |
|---|---|
| | Place head in neutral position |
| | 5 inflation breaths – chest movement YES NO |
| | Reassess heart rate **(Listen with stethoscope)** <60 60 – 100 >100 |
| | <u>If no chest movement</u>, consider these:<br>- reposition<br>- double jaw thrust<br>- other airway manoeuvre (consider LMA if baby 2 – 5 kg & > 34/40)<br>- give 5 effective inflation breaths |
| | Chest movement YES NO |
| | Reassess heart rate **(Listen with stethoscope)** <60 60 – 100 >100 |
| | <u>If no chest movement</u>, consider these:<br>- reposition<br>- double jaw thrust<br>- other airway manoeuvre (consider LMA if baby 2 – 5 kg & > 34/40)<br>- give 5 effective inflation breaths |
| | Chest movement YES NO |
| | Reassess heart rate **(Listen with stethoscope)** <60 60 – 100 >100 |
| | <u>Once 5 effective inflation breaths</u> given, continue with ventilation breaths |
| | If heart rate less than 60 - start chest compressions @ 3:1<br>- continue 3 cardiac compressions to 1 ventilation breath for 30 seconds |
| | Attach saturation probe if available: saturation = %, Heart rate =<br>If available, give oxygen to achieve saturation of > 90% |
| | Reassess heart rate **(Listen with stethoscope)** <60 60 – 100 >100 |
| | **Consider calling NICU & 999** **P.T.O** |

| TIME | DOCUMENT RESUSCITATION NEEDED & TIME WHEN DONE …. CONTINUED |
|---|---|
| | Continue CPR @ 3:1 if heart rate less than 60 |
| | Reassess heart rate **(Listen with stethoscope)** <60 60 – 100 >100 |
| | Discontinue CPR once heart rate more than 60 & rising |
| | Continue ventilation breaths until regular spontaneous breathing |
| | Reassess heart rate: & breathing:<br>If available, attach saturation probe to allow continuous monitor of pulse & sats |
| | During transfer, please document: heart rate, sats (if available), any resuscitation required. Document times. Please use additional paper as required. |
| | Condition on arrival at NICU: |

4. CALL FOR HELP
5. RESUSCITATE BABY & DOCUMENT BELOW & ON NEXT PAGE

**Apgar Score – (recorded retrospectively, useful for prognosis)**

| Time | Heart Rate | Colour | Breathing | Tone | Reflex | Total |
|---|---|---|---|---|---|---|
| 1 minute | | | | | | |
| 5 minutes | | | | | | |
| 10 minutes | | | | | | |
| 15 minutes | | | | | | |
| 20 minutes | | | | | | |

Please document referral / any discussion with NICU & Ambulance control with times:

| | |
|---|---|
| Time called 999 | |
| Time called NICU | |

*Personnel involved with infant resuscitation:*

*Name:* *Job Title:* *Signature:*
*Date:* *Time:*

*Name:* *Job Title:* *Signature:*
*Date:* *Time:*

*Name:* *Job Title:* *Signature:*

*Date:* *Time:*

## Appendix 12: Maternal Resuscitation

### Maternal Cardiac Arrest

Maternal cardiac arrest is very rare and in obstetrics is usually a complication of a previously identified emergency. Procedure when confronted with a collapsed, apparently lifeless pregnant or newly delivered woman.

### Flow chart to indicate action required.

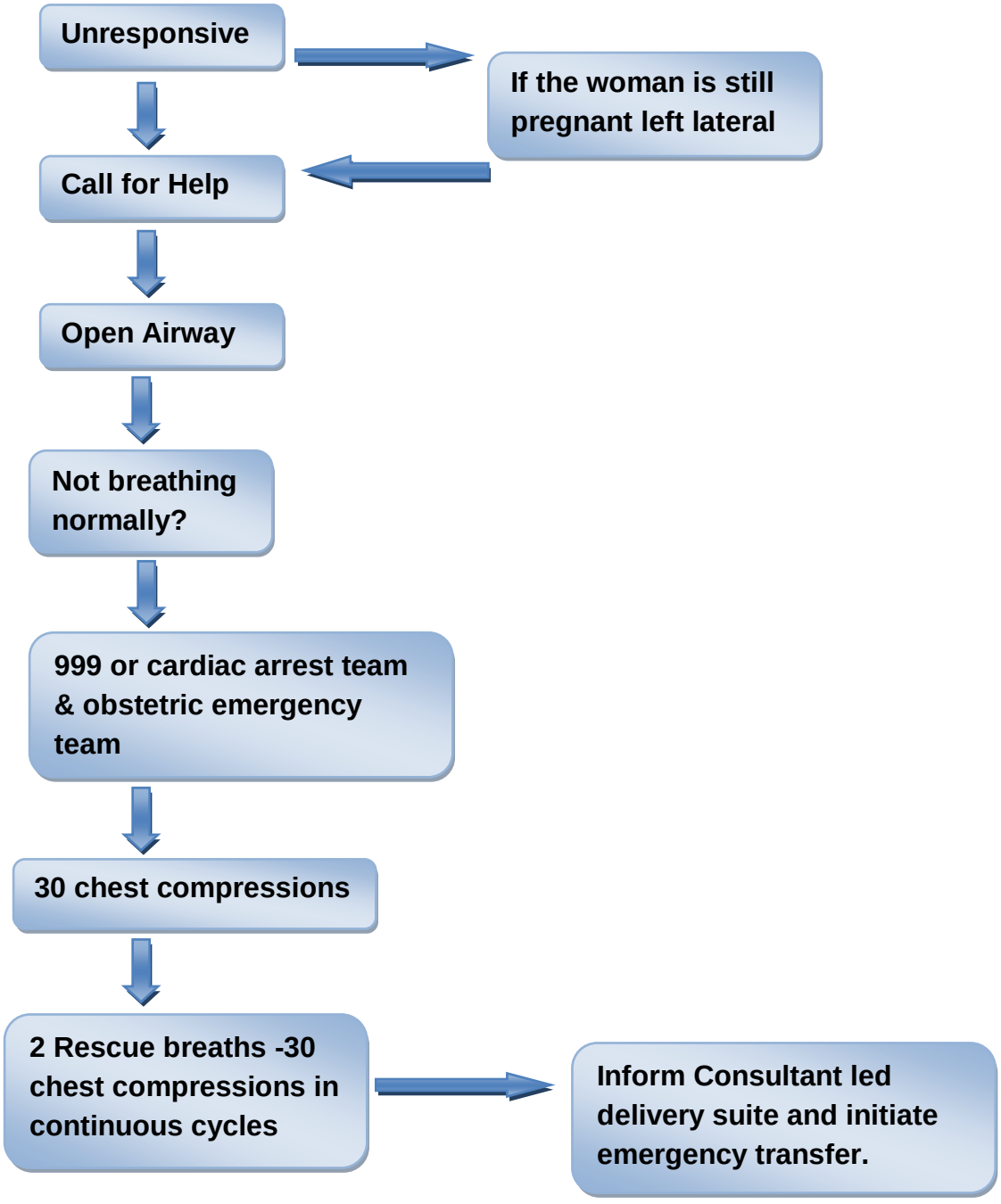
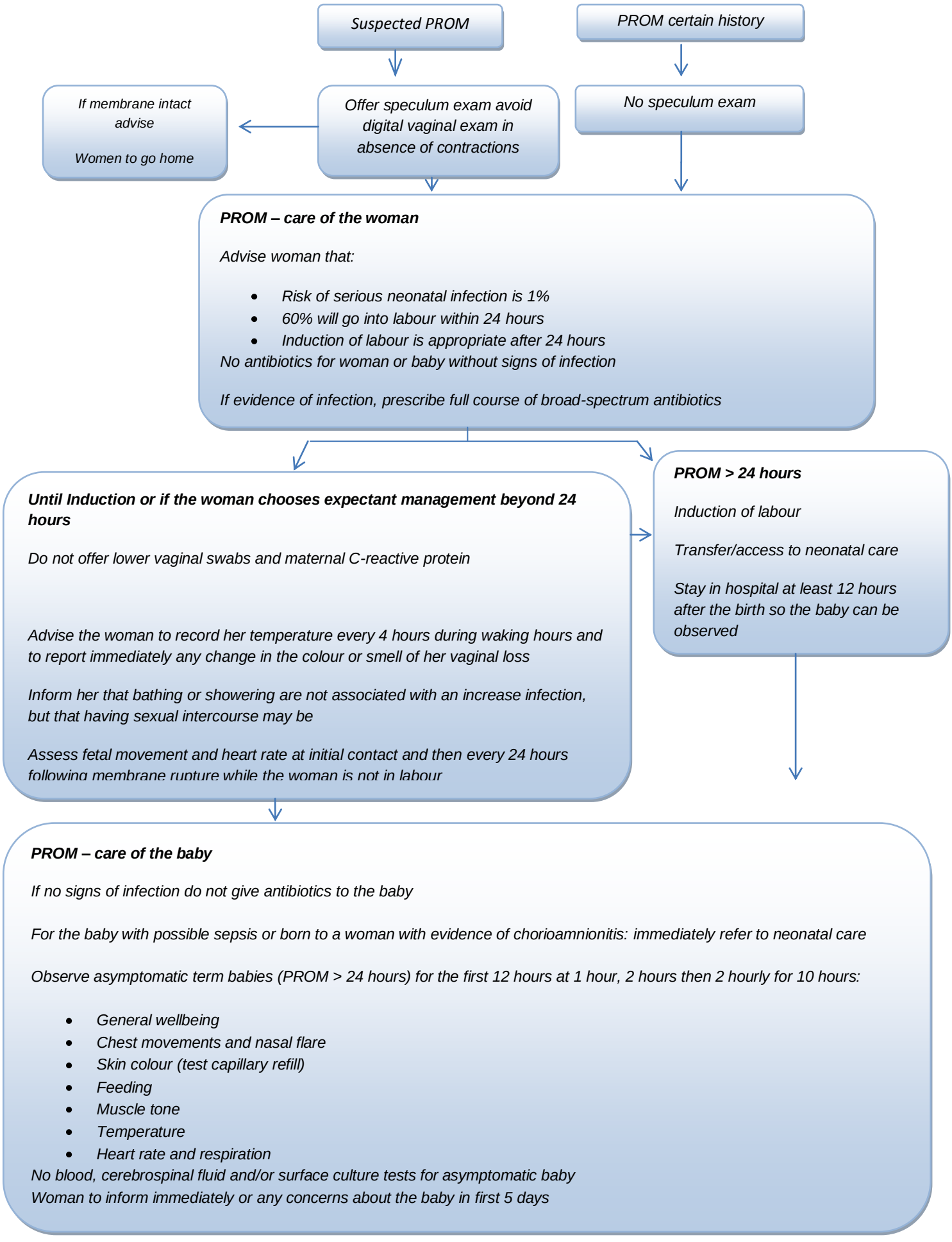
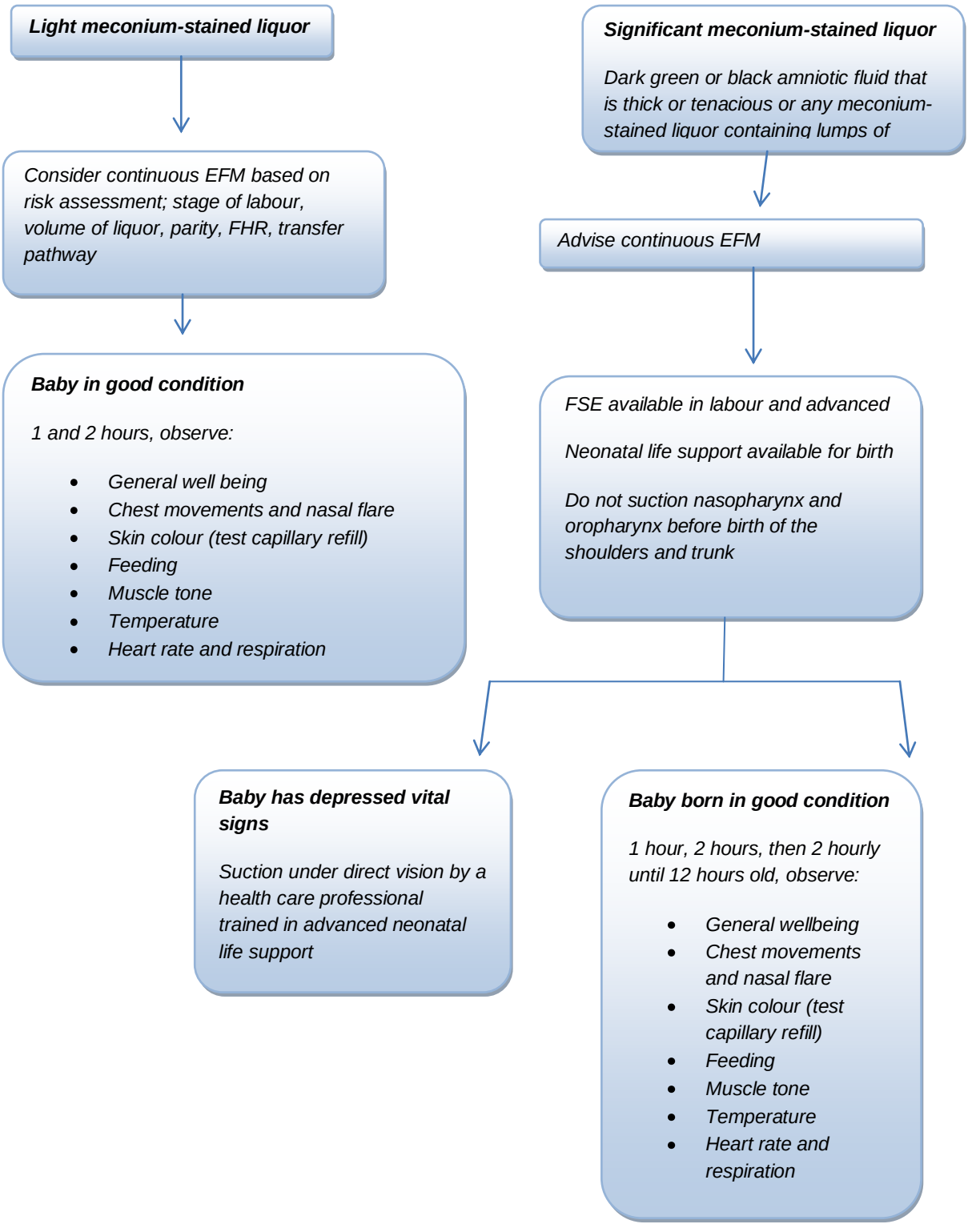



Figure 5: Resuscitation Council 2010 Maternal cardiac arrest action to be taken

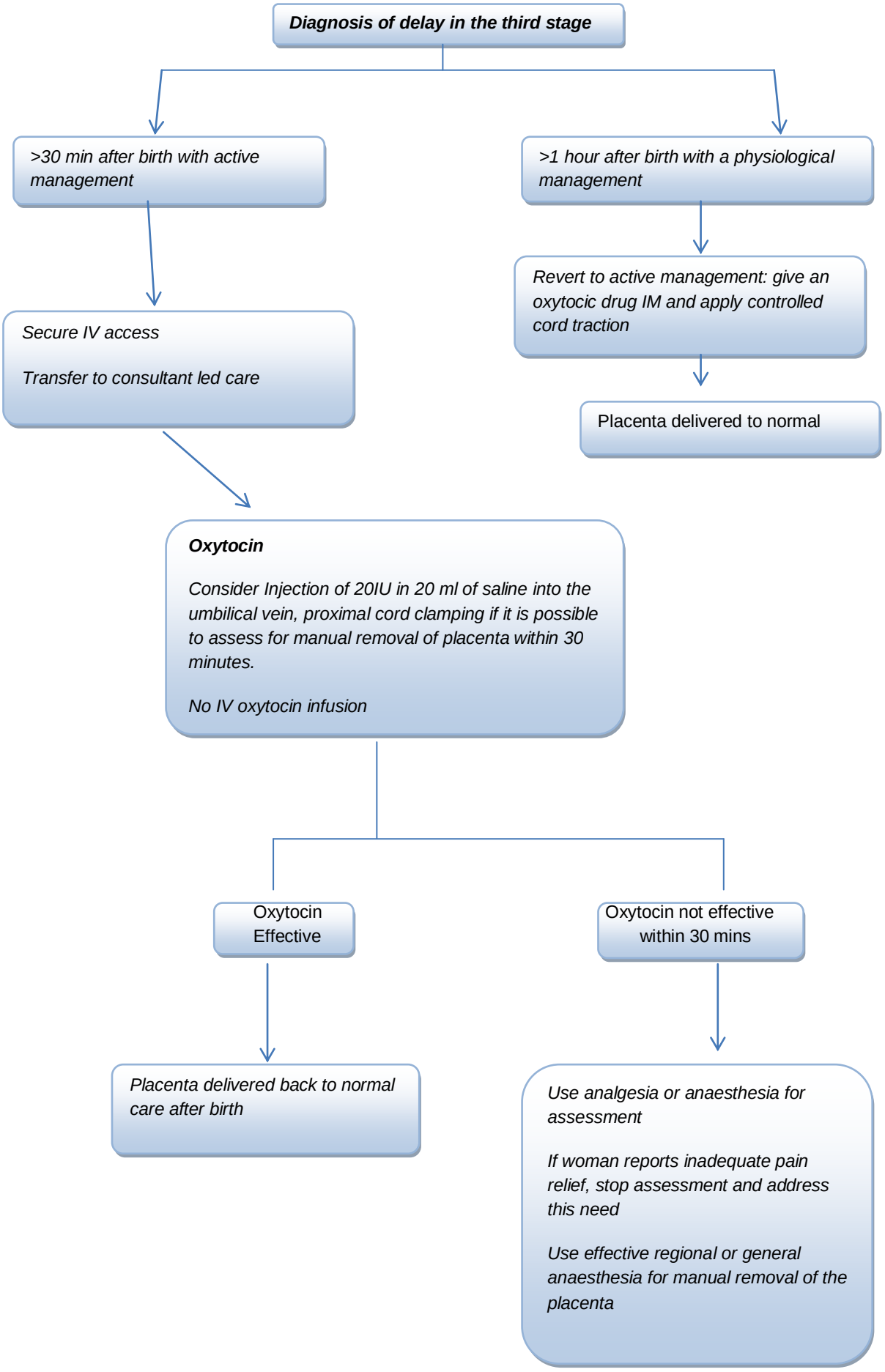
## Appendix 13: Prelabour rupture of the membranes (PROM) at term (NICE 2007)



## Appendix 14: Meconium-stained liquor (NICE 2007)



## Appendix 15: Retained placenta (NICE 2007)



## Appendix 16: Criteria for Referral to Medical Staff in Postnatal Period (The list is not exhaustive)

| Maternal |
| --- |
| Any cause for concern with mother's condition: As indicated by local early warning score MEOWS 1 Red or 2 Amber scores/ CEWS [Community Early Warning score] or Unexplained non-specific physical symptoms (distress, agitation, loss of appetite, acute confusional state) unless clear pathway to symptom production or known psychiatric history (CMACE 2011) |
| Secondary PPH |
| Raised BP or signs of pre-eclampsia |
| Maternal pyrexia |
| Maternal anaemia, Hb <8.0 |
| Maternal depression or anxiety |
| **Neonatal** |
| Axillary temperature less than 36.4 where skin-to-skin contact is not effective in increasing temperature to 36.4 after 1 hour. ) |

| |
| --- |
| Reluctant to feed with or without signs of hypoglycaemia |
| Requiring referral following neonatal examination |
| Jaundice |
| Concerns about baby observations |
| |
| |

## Appendix 17: neonatal transfer criteria

| Problem identified | Parameters | Action |
|---|---|---|
| Low Apgar scores | Apgar <5 at 5mins transfer out immediately | Transfer to NNU<br><br>Midwife initiates resuscitation<br><br>999 emergency ambulance called and NNU and consultant-led Unit informed of transfer<br><br>Further midwifery help called<br><br>Midwife will discuss with SpR on NNU who will advise where baby will be admitted and seen (PN ward or NNU)<br><br>Midwife will accompany baby and will continue to resuscitate baby if necessary during transfer |
| Low Apgar scores | Apgar 5–7 at 5 mins discuss with SpR on NNU | SpR on NNU will advise where baby goes:-<br><br>PN ward or NNU |
| Grunting / cold babies | Babies unable to maintain temp of 36.5 $^{o}$C (auxiliary temp) within an hour of birth or showing signs of respiratory distress syndrome. | Midwife will contact SpR NNU to discuss action already taken. May need further action or transfer out |
| Respiratory distress | Respiratory rate >60 breaths a minute. | Midwife to discuss with SpR condition of baby and any other physical findings, to decide appropriate course of action.<br><br>If transfer out:<br><br>Call emergency ambulance via 999 |

| **Problem identified** | **Parameters** | **Action** |
|---|---|---|
| | | Further midwifery help called<br><br>Midwife to accompany baby to NNU |
| Meconium aspiration | Thick meconium stained liquor at delivery with respiratory distress | Midwife will contact SpR in NNU<br><br>Call emergency ambulance via 999<br><br>Further midwifery help called<br><br>Midwife to accompany baby to NNU |
| Unexpected foetal abnormality | e.g. extra digits, ear tags, tilapias, cleft lip and palate, hypospadias, hydrocele, skin lesions, dislocated hips, cardiac murmurs | Midwife to contact SpR in NNU will who advise where and when the baby will be seen:-<br><br>PN ward or NNU or OPD |
| Signs of infection / pallor<br><br>Offensive liquor | pyrexia >37ºC (Auxillary temp.) on 2 readings in 1 hour.<br><br>Hypothermia, unable to maintain body temp. or poor feeder | Midwife to contact SpR in NNU who will advise where baby will be seen:-<br><br>PN ward or NNU |
| Jaundice within first 24 hrs | Transfer out | Midwife to contact SpR in NNU will advise where baby goes:-<br><br>PN ward or NNU |
| | | |

## Appendix 18: Ambulance transfer

Calls to WAST are managed in accordance with the WAST Clinical Response Guidelines:

Calls are divided into two categories: **Red Calls** are those which require an immediate response to save life.

**Red 1** calls are those where an immediate attendance is required to save life.

**Red 2** calls are those where initial treatment and conveyance to a specialist facility is required to save life.

**Green Calls** are those where there is an urgent problem which is not life threatening.

**Green 1** calls are those patients who require a face to face assessment to determine their needs. WAST aim to attend these calls within 30 minutes.

**Green 2 and 3** calls are those patients with a minor illness or condition. These calls are provided with further Nurse Advisor telephone assessment prior to the dispatch of an ambulance.

### Ambulance Response Capabilities:

WAST currently provides three types of ambulance:

**Patient Care Service:**

The PCS is the non emergency service offered by WAST. PCS ambulances are equipped with a stretcher, an AED and oxygen. The crew is trained in first aid and manual handling. PCS ambulances do not provide emergency transfers and are not equipped with blue lights. PCS crews are able to undertake routine inter-hospital transfers. An appropriate nursing escort may be required depending on the patients' condition.

**Urgent Care Service:**

The UCS (formerly known as HDS – High Dependency Service) provides ambulances with a basic life support capability. UCS ambulances are staffed by two Urgent Care Assistants who are trained in ambulance aid including basic patient observation. UCS ambulances are able to provide emergency transfer using blue lights where required. A suitable nursing escort maybe required for some patients. UCA are not trained in managing emergency childbirth.

**Emergency Medical Service:**

EMA ambulances are staffed by Registered Paramedics and Emergency Medical Technicians. Registered Paramedics are also provided in single crewed Rapid Response Vehicles.

An EMS crew can provide the full range of immediate aid to a seriously ill or injured patient. There is not a Registered Paramedic on every EMS ambulance. Some EMS ambulances are crewed by two EMT staff.

EMS crews are able to provide emergency transfers using blue lights and all EMS staff including EMT staff is trained in emergency childbirth.

Whilst Registered Paramedics are trained in emergency childbirth and common obstetric emergencies it should be noted that their exposure to these cases is thankfully rare. An appropriate midwifery or medical escort will still be required in some cases.

**Escalation:**

In the event of a transfer request not being managed within the required timeliness the midwife should in the first instance remake the call and discuss whether their is an alternative grade ambulance available sooner than the original one ordered, for example a lower grade ambulance may be available immediately or if a lower grade ambulance was originally required it may be necessary to upgrade if circumstances change. If ambulance response is still not available in the required timeframe the midwife should escalate concerns to the executive on call for the organisation.

Standards the HCP requesting the transfer should re contact ambulance control in the first instance. There is a Duty Control Manager, - DCM on duty in each of the control room 24 hours per day.

Where there is any concern the situation should be escalated to the DCM, immediately. Local agreement should be established including the appropriate local contact numbers.

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