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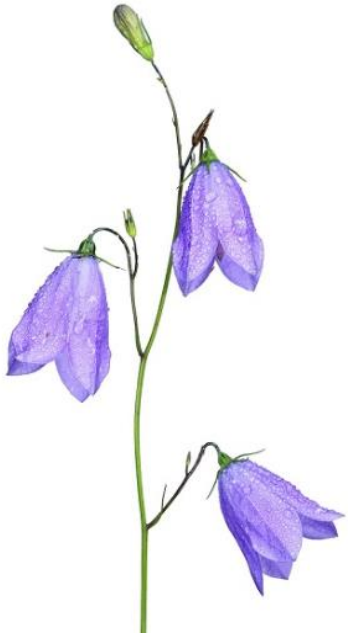

Ensuring optimal management for families who experience a second trimester pregnancy loss

The North West Second Trimester Pregnancy Loss Guideline

To be used in association with the Integrated Care Pathway

March 2017

Version 1.0

In honour of all the parents and families who have experienced a pregnancy loss

Document Control

Ownership

Role	Department	Contact
Owner	Greater Manchester and Eastern Cheshire Strategic Clinical Network	Joanne Langton Quality Improvement Programme Manager
Project Manager	Greater Manchester and Eastern Cheshire Strategic Clinical Network	Sarah West Quality Improvement Project Manager

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Once finally endorsed these guidelines are available to be adopted across the North West in order that parents and their families receive universal and high quality care if they experience this unfortunate complication.

Dr John Tomlinson
Special Interest Group Chair

Contents

Introduction

The purpose of this guideline is to deliver gold standard care in the management of women experiencing a second trimester pregnancy loss. This is defined as a loss (miscarriage or termination for fetal abnormality) after the 12th and before the 24th completed week of pregnancy (13^{+0} to 23^{+6} weeks).

Spontaneous miscarriage is the commonest complication of pregnancy, occurring in about one fifth of clinical pregnancies.[1] The miscarriage rate is reduced to approximately 1% if a live fetus has been identified by ultrasonography at 10 weeks gestation in a normal population.[2] Miscarriages occurring in the second trimester of pregnancy are less common and often unexpected. The incidence of miscarriage in the second trimester varies depending on the gestational age in weeks that is used in definitions and also whether the pregnancy has been dated and evaluated using ultrasound. In low risk women the risk is approximately 0.5%[3].

The loss of a pregnancy at any gestation is traumatic for the parents, who deserve to be cared for with empathy and compassion. Commenting about mid-trimester loss a Sands report noted:

> *"Poor or insensitive care at this traumatic time adds significantly to parents' distress. Good care should be universal and should not depend on where a mother happens to live or to be cared for."*[4, 5]

This guideline has been written by a multidisciplinary team of professionals working in maternity units across the North West. In the absence of a national guideline, Clinical Practice Guideline 29, The Management of Second Trimester Miscarriage from the Institute of Obstetricians and Gynaecologists and Royal College of Physicians of Ireland was reviewed, along with the relevant sections of the RCOG Green Top Guideline No 55, Late Intrauterine Fetal Death and Stillbirth. [6, 7]

This guideline is written to support an integrated care pathway to enable optimal care to be given from the point of diagnosis of second trimester pregnancy loss. Whilst this guideline does not cover the management of threatened miscarriage or preterm pre-labour rupture of membranes (PPROM), it would be appropriate for use should either of these conditions result in pregnancy loss before 24 weeks gestation. It is also relevant to situations where maternal well-being is compromised and delivery indicated in the second trimester before 24 weeks gestation.

Presentation, Diagnosis and Immediate Care

In women who present with abdominal pain and vaginal bleeding or spontaneously miscarry, the diagnosis may be clinical. However, many do not present in this way in the second trimester. Women may present with a history of ruptured membranes or very subtle signs such as increased vaginal discharge or feeling pressure in the vagina. In some circumstances the woman may be asymptomatic and the diagnosis made during a routine ultrasound examination.

A thorough clinical history and physical examination are important in the assessment of women presenting with symptoms or signs suggestive of late miscarriage. A past obstetric history should be obtained as well as any previous history of miscarriage or cervical surgery (including cervical suture).

Clinical examination should include the woman's vital signs and careful abdominal examination assessing for any uterine tenderness. Sterile speculum examination should be performed by a trained individual in an appropriate environment, ensuring the woman's privacy and dignity. Assess the cervix, look for any vaginal bleeding or pooling of liquor. A high vaginal swab should be sent for microbiological culture and sensitivity. If the membranes are ruptured, digital vaginal examination should be avoided to minimise the risk of ascending infection. If the cervix needs to be assessed with a view to induction, vaginal examination in the presence of ruptured membranes should be deferred until induction so that the examination to delivery interval is minimised.

When fetal demise is suspected and the woman is not actively miscarrying this **must** be confirmed by two-dimensional ultrasound at the earliest opportunity. If the diagnosis is suspected in the community setting then the woman should be referred to hospital for confirmation.

The optimal method to confirm fetal demise is an ultrasound scan performed by trained sonographers. However, out of hours a practitioner with appropriate training may use a portable ultrasound machine. The fetal chest should be imaged in the transverse plane. Ideally, a 4 chamber view of the heart should be identified, though this may be difficult at earlier gestations. Colour flow Doppler is useful to verify the absence of heart activity.

It is advisable to obtain a second opinion from a suitably trained person whenever possible although it is recognised that this may not always be possible in emergency situations.

Following the diagnosis and confirmation of a miscarriage the parents must be given time to absorb and accept this news. A clear, sensitive and honest explanation should be given as to what has happened by experienced staff. The language used should be clear. Below is an example statement:

"I'm terribly sorry, I can see your baby's heart clearly and it is not beating, which means your baby has died."

If the mother has attended on her own, an immediate offer to contact her partner or a family member or friend should be made and support given. Many parents are surprised and shocked that they will still have to give birth vaginally and it is vital that they are fully informed. Questions should be welcomed and encouraged. The Miscarriage Association patient information leaflet "Late Miscarriage: Second Trimester Loss" should be offered (see appendix 1).[9] Parents should be included in discussions about management options and their wishes should be taken into account. Some mothers will want to go home and see family members before delivery whilst others will want the induction process to commence as soon as possible. If the mother had been feeling fetal movements before diagnosis, then the possibility of passive movements should be discussed with her and contact numbers should be given.

Although care should be taken not to overload the parents with too much detail initially, it is important to give adequate information. Where possible, it is good practice to have an early discussion about what to expect in terms of induction, analgesia, delivery, appearance of baby, memory boxes and other mementos. Parents also want to know about investigations which may be offered (page 18) and funeral arrangements (pages 22).

Psychological Support Following Pregnancy Loss[10]

Pregnancy loss can be associated with short term and chronic anxiety and depression not only in the mothers but also fathers, siblings and other family members. Feelings of grief and loss (bereavement reactions) are very common and expected. It is important to ensure that the family are well supported throughout the hospital stay and beyond, with as much continuity of care as possible. Every woman who suffers a pregnancy loss is at risk of depression, but those with psychiatric illness or from a vulnerable social group are at particular risk. As soon as practically possible involve your Trust's Bereavement Midwife, Specialist Midwife or Counsellor to provide ongoing support.

Place of care
Whilst in hospital the parents should be cared for with respect and dignity, if possible in a single room to ensure privacy during this difficult time. Ideally, these parents should be cared for in a different environment from mothers with healthy babies. Efforts should be made to provide continuity of care. The partner/family should be able to remain with the mother as long as she wishes.

Spiritual care
Parents may want the opportunity to see their own religious leader or a member of the local chaplaincy service. This should be facilitated by staff, and offered to all families even if they do not have a specific faith. Some Trusts hold an annual remembrance service, which parents should be informed about and may wish to attend.

See page 27 for the contact details of relevant support organisations.

Multiple Pregnancies

Multiples make up approximately 3% of pregnancies in the UK with numbers rising significantly over the past 20 years due to the increasing use of assisted conception techniques such as IVF. Clinicians should be aware that fetal loss occurs more frequently in multiple pregnancies than singleton pregnancies. At gestations less than 24 weeks the fetal loss rate is estimated to be 14.2% for monochorionic twins compared with 2.6% for dichorionic twins [11,12]

Clinicians should appreciate the complexity and mixed emotions of couples who experience miscarriage, termination or selective reduction of one fetus with a surviving twin or higher order multiple. The timing and mode of delivery will depend on chorionicity, gestation, the position of the fetuses and the wellbeing of the surviving baby / babies. Specialist advice should be sought in complex cases (e.g. local multiple pregnancy lead).

Parents will require support through delivery and bereavement care. Parents want to talk about the baby that has died and to acknowledge that they were twins. Some parents may wish to take photographs of the babies together so this should be discussed and offered. The Butterfly Project supports families who have lost a baby from a multiple pregnancy. Their guideline for professionals 'Bereavement from a multiple pregnancy' was published in May 2016. http://www.neonatalresearch.net/butterfly-project.html.

See page 29 for more information.

Deliveries At The Threshold Of Viability

When it appears that a mother will deliver her baby at a very early gestation, the obstetric history and antenatal course must be considered carefully with particular attention to ultrasound scan(s) to accurately calculate gestation. Wherever possible antenatal management decisions should involve both parents and the clinical staff who will be responsible for the family before and after the delivery. (See figure 1.)

23+0-23+6 weeks

If gestational age is certain at 23+0–23+6 weeks and the fetal heart is heard during labour, a professional experienced in resuscitation should be available to attend the birth. A decision not to start resuscitation may be appropriate in the best interests of the baby, particularly if the parents have expressed this wish following antenatal counselling. However, if following counselling by the neonatal registrar / consultant, the parents wish their baby to be resuscitated (or where there is no time for discussion with the parents), the neonatal team should be present at delivery. The EPICure 2 study (2006) showed that at this gestational age, only 66/416 babies alive at the onset of labour survived to discharge (15%), whilst only 23% of survivors had no major morbidities[13].

22+0 – 22+6 weeks

If the gestational age is certain and less than 23+0 it is considered in the best interests of the baby, and standard practice, for resuscitation not to be carried out. In the EPICure 2 study survival remained extremely rare at this gestational age (less than 1% at 22 weeks, as only 3 out 478 survived to discharge and of those, only 1 survived without major morbidity). The obstetric team should discuss this with the parents and document the discussion. The parents should be informed that their baby may attempt to gasp and move when born, will be kept comfortable, treated with respect, dignity and love.

Less than 22+0 weeks

Parents should be counselled by the obstetric team that their baby cannot survive at this gestation thus it is standard practice for resuscitation not to be carried out. Parents should be informed that their baby may attempt to gasp and move when born, will be kept comfortable and treated with respect, dignity and love.

Uncertain gestation

If the gestation is uncertain, or where there is parental request for resuscitation, they should be given the opportunity to discuss management with the neonatal team. A plan of care should be agreed and documented including the implications of signs of life being seen and any decision to attempt resuscitation. This would not automatically mean that the baby is resuscitated; the final decision lies with the neonatologist present at delivery after careful assessment of the baby. Resuscitation may be appropriate if baby is born vigorous and of an apparently good birth weight.

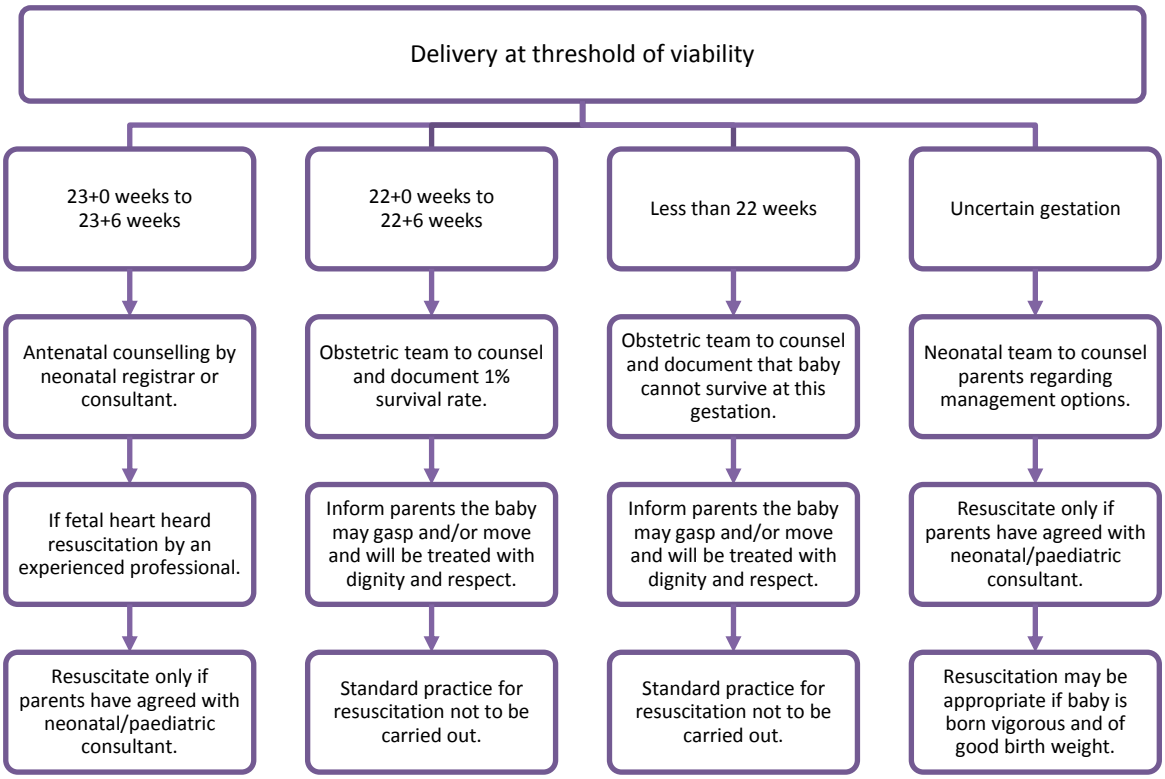

Figure 1: Care During Induction and Delivery

Signs Of Life

Delivery at gestations from 16 weeks onwards may result in the baby being born with signs of life. Signs of life include spontaneous breathing, spontaneous heartbeat, pulsation of the umbilical cord or definite movement of voluntary muscles. The WHO definition of a live birth is:

> ***"Live birth** refers to the complete expulsion or extraction from its mother of a product of conception, irrespective of the duration of the pregnancy, which, after such separation, breathes or shows any other evidence of life - e.g. beating of the heart, pulsation of the umbilical cord or definite movement of voluntary muscles - whether or not the umbilical cord has been cut or the placenta is attached. Each product of such a birth is considered live born."* [14]

Babies born with signs of life should be seen by a doctor at the earliest opportunity, so that in the event of subsequent death a neonatal death certificate may be issued to the mother after discussion with the coroner.

The Greater Manchester coroners request that any baby born with signs of life should be referred to the relevant coroner for the Trust in the event of subsequent death, regardless of gestation[15]. If using the guideline outside of the Greater Manchester area please check local coroner reporting criteria. The referral should be made electronically or by telephone depending on local policy. An example of a Coroners Referral form can be found in appendix 2. The coroner will advise on an individual case basis regarding cause of death, if a death certificate can be issued, or whether a post mortem is required. The outcome of the discussion should be documented in the appropriate section on page 11 of the ICP.

Management of a Baby Born with Signs of Life Which Is Not For Resuscitation

The baby should be treated with dignity, respect and love and comfort care should be provided. Wrap the baby to keep the baby warm and provide the option of family holding the baby. If the family do not wish to see or hold the baby place the baby in an appropriate size Moses basket.

Registration and Certification

By law, two registrations are required for a baby born with signs of life who subsequently dies, regardless of gestation; a live birth and subsequent neonatal death.[16]

If a baby is delivered without exhibiting signs of life this should be classified as a miscarriage. In the absence of signs of life, legal certification is not required however the parents may wish to have a certificate of birth to commemorate their baby and this should be offered. Sands has several certificates for use, the relevant one should be chosen depending on whether it is to be issued to a single parent (mother or father), a heterosexual couple or a same sex couple (see available certificates in appendix 3).

Multiple Pregnancies

When fetal demise in a multiple pregnancy has been confirmed by ultrasound before 24 weeks but delivery is after 24 weeks, such as in the case of a single twin demise, fetus papyraceus or multifetal pregnancy reduction, the demised fetus should NOT be registered as a stillbirth with the registrar even though it was delivered from the mother after 24 weeks.[7, 17]

MBRRACE-UK

MBRRACE-UK is national collaborative programme of work involving the surveillance and investigation of maternal deaths, stillbirths and infant deaths. Under 24 weeks, deaths eligible for notification at: www.mbrrace.ox.ac.uk are:

- **Late fetal losses** – the baby is delivered between 22^{+0} and 23^{+6} weeks of pregnancy showing **no** signs of life, irrespective of when the death occurred. Both date of delivery and date of confirmation of death should be reported for these cases.
- **Terminations of pregnancy** - resulting in a pregnancy outcome from 22^{+0} weeks gestation onwards, **plus** any terminations of pregnancy from 20^{+0} weeks which resulted in a live birth ending in neonatal death. [15]
- **Early neonatal deaths** – death of a live born baby (born at 20 weeks gestation of pregnancy or later or 400g or more where an accurate estimate of gestation is not available) occurring before 7 completed days after birth.

Each delivery unit will have a designated person responsible for reporting relevant fetal losses to MBRRACE-UK, for example the pregnancy loss co-ordinator.

Neonatal Death

The North West Neonatal Palliative care website is an excellent resource, the relevant documents for management of neonatal death. http://neonatalnetwork.co.uk/

Second Trimester Medically Indicated Termination of Pregnancy for Fetal Abnormality

Termination of pregnancy is legal at any gestation following a diagnosis of a severe abnormality. Parents should be cared for with the same compassion as with an unexpected fetal loss. Good communication with the parents and between all health care professionals involved is of primary importance.

The RCOG recommends that "for all terminations at a gestational age of more than 21 weeks + 6 days, the method chosen should ensure that the fetus is born dead". Termination of Pregnancy (TOP) at this late gestation requires administration of intra-cardiac potassium chloride (KCl) to the fetus, prior to induction.[18] This is a rare event and will be arranged in liaison with a tertiary fetal medicine unit (where the feticide will be performed). Clause E of the Abortion Act form (HSA4) will need to be completed by two doctors prior to performing this procedure.

Feticide is performed under ultrasound control with 15% KCl solution injected into either the umbilical cord vein or heart. A further ultrasound scan is performed after 30 minutes to ensure fetal demise.

In certain specific situations where the fetus would be expected to die in the immediate neonatal period from the abnormality (anencephaly, limb body wall complex, renal agenesis and lethal skeletal dysplasias) feticide may not be necessary.

The timing of medication for induction will need to be agreed with the fetal medicine unit. In general mifepristone 200mg could be given 48 hours prior to the procedure, then the woman could return to the local unit for induction with misoprostol after the procedure has been performed. Ensure that the woman has a 24 hour contact number for the relevant ward or clinical area, should she need advice prior to her planned admission.

The recommended misoprostol dose for second trimester termination is higher than that used for induction for fetal demise. FIGO recommends 400 micrograms vaginally every 3 hours, one course being a total of 5 doses.[19] The dose should be halved to 200 micrograms for women with a previous Caesarean section. At earlier gestations, surgical termination may be an option; refer to local trust guidance.

Parents should be provided with the ARC (Antenatal Results and Choices) information booklet. A list of contact numbers and website addresses for other local and national support groups can be found in (page 27).

Parents should be informed that at gestations below 21+6 weeks, the baby may be born with signs of life (spontaneous breathing, spontaneous heartbeat, twitching or other active body movement). The baby should be wrapped and treated with respect and dignity. The parents should be given the opportunity to hold their baby if they wish. See page 15 onwards for care during delivery and postnatal care. As explained on page 10, any baby born with signs of life who subsequently dies must be referred to the coroner and registered as a live birth and neonatal death irrespective of gestation.

Spontaneous Second Trimester Miscarriage

For women who spontaneously miscarry, please see page 15 onwards for care during delivery and postnatal care.

Medical Management of Second Trimester Miscarriage

Purpose and Scope

This section is designed to assist nurses, midwives, obstetricians and gynaecologists in the medical management of second trimester miscarriage. This section should not be implemented until a robust diagnosis of miscarriage has been made.

In certain clinical situations the maternal medical condition will necessitate expediting the delivery. Problems related to delayed delivery are intrauterine infection if the membranes are ruptured or disseminated intravascular coagulopathy if the fetus is dead for more than 4 weeks.[20,21]

Timing

Urgent delivery may be required if there is sepsis, significant bleeding or in some cases of ruptured membranes.

The method of induction under these circumstances should be customised to the presenting condition and other patient factors including past obstetric and past medical history.

Investigations to be performed at presentation

- Check FBC, clotting screen, consider Group and Save.
- Consider Kleihauer (irrespective of maternal blood group) after 20 weeks, to assess for and quantify feto-maternal haemorrhage if clinical suspicion eg history of trauma to the abdomen, antepartum haemorrhage, known vasa praevia.
- Infection screen (HVS, endocervical swabs, MSU, CRP, blood cultures) should be performed if maternal infection is suspected, particularly in the presence of pyrexia, flu-like symptoms, abnormal liquor or prolonged rupture of membranes.
- Infection is more likely to occur when the cervix is dilated, if the membranes are ruptured or if the uterine contents have protruded through the cervix.
- Antibiotic administration should be considered on an individual basis.

If the above have been excluded, a senior clinician should discuss the timing and process with the mother and offer a choice of induction of miscarriage or expectant management. If the mother chooses expectant management, then arrangements for review should be made.

- If delivery is delayed >48 hours repeat FBC and clotting screen weekly
- Also advise that if expectant management is performed the appearance of the baby may deteriorate
- All mothers should be given a 24 hour contact number for the relevant ward or clinical area if they are managed as an outpatient for any time between diagnosis and delivery
- Advice should be given to return to hospital should the mother experience symptoms such as abdominal pain, vaginal bleeding or have any concerns about her well-being

- Recommendations about delivery should be discussed taking into account the mother's preferences as well as her medical condition.

- Vaginal birth is the recommended mode of delivery at gestations under 24 weeks. Extremely rarely a hysterotomy may need to be considered due to:

    - Failed attempts at induction of miscarriage
    - Deteriorating maternal condition (eg. haemorrhage or sepsis)
    - Other obstetric indications such as multiple previous Caesarean sections, placental site, morbidly adherent placenta

The decision regarding mode of delivery in such complex cases should be made in consultation with a Consultant Obstetrician.

Consent

Written or verbal consent should be obtained and documented in line with local trust guidance prior to commencing the induction process.

Drug Information

A combination of mifepristone and misoprostol is recommended as the first-line pharmacological intervention for induction in second trimester miscarriage. One report found that the combined use of mifepristone and misoprostol was not only safe but also had an average time-to-delivery interval less than other induction regimes.[22]

Mifepristone - an anti-progestogenic steroid is used as pre-treatment. It facilitates uterine response to subsequent administration of a prostaglandin and takes time to work so is usually given before prostaglandin**.**

Contraindications include – uncontrolled or severe asthma, chronic adrenal failure and acute porphyria.

Cautions – asthma, risk factors for cardiovascular disease, prosthetic heart valves or endocarditis and haemorrhagic disorders.

This drug can only be administered in maternity units. Women should be observed when taking this medication.

Misoprostol - (prostaglandin E1), in the second trimester of pregnancy is as effective as other prostaglandin preparations.[23] Its advantages over other synthetic prostaglandin analogues are its low cost, long shelf-life, lack of need for refrigeration and worldwide availability.

Cautions – inflammatory bowel disease, conditions that are exacerbated by hypotension (e.g. cerebrovascular or cardiovascular disease)

Side effects include fever, nausea, vomiting, abdominal cramping, and diarrhoea. **These are less common if the tablets are given vaginally.**

Serious complications, including uterine rupture, major haemorrhage and cervical tear are rare.

Pre-Induction of Miscarriage

At all gestations, regardless of whether there is a uterine scar, a single dose of **200 milligrams oral mifepristone** is given after which the mother should be allowed home wherever possible**.**

Arrangement should be made for admission to hospital 24 – 48 hours later or sooner if:

- the woman experiences pain or bleeding or has concerns
- she develops an indication for urgent delivery

There is no evidence against earlier induction of labour following mifepristone – induction can occur anytime from 6 hours to 48 hours after administration.

Induction of Miscarriage

The required amount of misoprostol not only decreases with increasing gestational age but has also been found to be lower in women where the fetus has died in utero.[24]

Vaginal assessment should be performed prior to commencing oral or vaginal misoprostol. The vaginal route is preferred due to the lower incidence of side effects.

Misoprostol is available as 200 microgram scored tablet.

The 100 microgram dose can be obtained by dividing a 200 microgram tablet into two halves using a pill cutter.

Misoprostol should be given 24 to 48 hours after mifepristone or earlier when there is an urgent need to deliver**.**

Induction Regime table

	13+0 – 17+6 weeks	**18+0 - 23+6 weeks**	**Termination of pregnancy, any gestation**	
	Unscarred & scarred uterus	Unscarred & scarred uterus	Unscarred uterus	Scarred uterus
Pre-Induction	Mifepristone 200 milligrams once only	Mifepristone 200 milligrams once only	Mifepristone 200 milligrams once only	
Normal interval between mifepristone and misoprostol is 24 hours to 48 hours though this can be shortened if clinically needed.				
Induction	Misoprostol 200 micrograms, 6 hourly, for 4 doses	Misoprostol 100 micrograms, 6 hourly, for 4 doses	Misoprostol 400 micrograms, 3 hourly, for 5 doses	Misoprostol 200 micrograms, 3 hourly, for 5 doses
Vaginal route preferable due to lower incidence of side effects				
If delivery not achieved after the recommended doses above, discuss with Consultant. A second course of misoprostol can be given after a 12 hour interval.				

If membranes ruptured consider oxytocin infusion as the method of induction.

If delivery of the fetus is not achieved after the maximum dose of misoprostol, further management should be discussed with the Consultant Obstetrician / Gynaecologist and a repeat course of misoprostol considered 12 hours after the last dose.

Scarred uterus:

The risk of uterine rupture with misoprostol, although small, is increased in women with a second trimester fetal loss and one or more previous Caesarean sections or other uterine scars. This should be discussed with the parents. The misoprostol doses above should be used with caution. All staff should be vigilant to clinical features that may suggest uterine scar dehiscence or rupture.

- maternal tachycardia, atypical pain, vaginal bleeding, haematuria and maternal collapse

Women with ruptured membranes

There is no evidence in the literature as to an optimal regime for induction when the cervix is dilated and/or the membranes are ruptured. Although logically in such situations avoidance of multiple digital examinations may reduce the risk of ascending infection, there is a lack of evidence to guide practice. In such circumstances, and if the clinician wishes to avoid the use of vaginal misoprostol, intravenous oxytocin may be considered after discussion with a Consultant Obstetrician / Gynaecologist. A recent randomised prospective trial has shown that oxytocin is as efficient as misoprostol in inducing delivery of second trimester miscarriages. However, the oxytocin regime has a longer mean time to delivery.[26]

Care During Delivery

Women with a second trimester pregnancy loss (miscarriage or termination) should be admitted to a place of care where their emotional and practical needs can be taken into account without compromising safety.

Care should be given by an experienced midwife or nurse depending on gestation and a Consultant Obstetrician / Gynaecologist should be aware of the admission.

Blood tests including full blood count (FBC), clotting screen and group and save should be performed.

Analgesia

Adequate analgesia should be offered. All usual modalities should be made available. If opiate analgesia is chosen then diamorphine should be used in preference to pethidine.

Sepsis

Women with sepsis should be treated with intravenous broad spectrum antibiotics including cover for Chlamydia (if clinically high risk) after sepsis screening investigations have been performed.

e.g. I.V cefuroxime 1.5g + metronidazole 500mg 8 hourly + azithromycin stat dose 1g orally

If allergic to penicillin, give I.V clindamycin 900mg 8hourly.

Women with a second trimester loss and GBS colonisation of the vagina **do not require** antibiotic prophylaxis in labour.

Third stage

The third stage should be managed actively in accordance with local delivery guidance.

Women should be informed that there is a higher incidence of retained products of conception (RPOC) compared to first trimester miscarriage especially at gestations of 13-20 weeks. A low threshold for evacuation of retained products of conception (ERPC) should therefore be adopted if the placenta or membranes appear incomplete or if the woman experiences excessive bleeding.

If there is a delay in completion of the third stage of more than one hour, the bladder should be emptied and surgical intervention considered. Informed written consent should be sought from the woman after explaining uncommon surgical risks including uterine perforation (1%), cervical tears, intra-abdominal trauma (0.1%), haemorrhage and infection.

Thromboprophylaxis

A thromboprophylaxis risk assessment should be performed. Whilst miscarriage and termination do not increase the risk of venous thromboembolism per se, associated complications may increase the risk eg haemorrhage, sepsis. Low molecular weight heparin should be prescribed if required as per local guidance.

If DIC is present then discuss thromboprophylaxis with a haematologist.

Anti-D Prophylaxis

Anti-D should be administered to non-sensitised Rhesus negative women after delivery as per national guidance.

Care of Baby

Each family's individual needs should be identified and accommodated. Assistance should be given to facilitate the grieving process including empathic care, appropriate literature and contact telephone numbers.

Contact with baby

Parents should be given the option of seeing and holding their baby whatever the gestation. Some parents may wish to see and hold their baby immediately after birth, others may prefer to wait and some will decline; their decision should be respected. At earlier gestations parents should be prepared for their baby's appearance. Parents are free to change their minds and can ask for their baby to be brought to them whenever they feel ready. Parents may wish other family members to be given opportunity to see/hold baby.

Parents should be offered the use of a cooling cot if available/appropriate.

Staff should also make the couple aware that the gender of the baby may not be easily identified at this gestation. Hence, in cases of uncertainty, the fetal gender should not be assigned. The parents may decide to choose a neutral name for baby.

Mementos

Mementos include hand and foot prints (though these may not be possible at earlier gestations), cord clamp, identity band. Most parents welcome these tokens and they can be presented in memory boxes.

Child Bereavement Trust UK offer memory boxes to record and store mementos obtained. If mementos and/or photographs are not taken home by parents these can be stored in the hospital records should the parents wish to access them at a later date.

Photographs of baby

Photographs of the baby are valuable and can be taken with the parents' own camera, with the hospital digital camera, or by medical photography. If there is a multiple birth, offer to take photographs of the babies together and/or separately. If parents own film/disposable camera is used, it is advisable that parents inform film developers that the film is of a sensitive nature.

Taking photographs with the hospital digital camera requires parental verbal or written consent. Identification of the start and end of a series of photographs must be performed. Similarly, verbal or written consent is required for photographs to be taken by medical photography.

An additional option is http://www.remembermybaby.org.uk, a charity who have volunteer professional photographers who photograph babies for parents losing their baby before, during or shortly after birth.

The Butterfly Project: supporting parents who have lost a baby from a multiple pregnancy

Parents who have suffered a bereavement from a twin pregnancy (or higher order multiple) face the difficult challenge of dealing with the bereavement, while often simultaneously feeling anxious about the prognosis for surviving multiples. They differ from parents who have lost a singleton in many ways, but one important difference is that parents who have lost a twin delivered prematurely and often remain in hospital for weeks or months while the surviving twin is cared for on SCBU. Staff attitudes, behaviours and actions have a huge impact on parents both in the short and longer term. Generally parents appreciate it when staff acknowledge that a surviving baby is a twin, and value the importance of knowing about the circumstance of the loss (e.g. when did it occur) as well as the name of the baby who died.

The Neonatal Research Network www.neonatalresearch.net/butterfly-project have developed two concepts:

1. A small sticker of a butterfly that can be put on the front of the mother's notes, including hand held notes, where the loss happens before birth. Where the loss happens after delivery the butterfly could be placed on the medical notes of the surviving twin. However, check with your hospital that this is allowed.
2. A butterfly symbol that is placed inside of, or next to the incubator or cot of any surviving babies. We have found that most parents like to write the name of the baby who died on the card. Remember to individualise care – some parents may not wish for this.

See appendix 8.

Postnatal Care of Mother

Psychological support

All parents and siblings should be offered bereavement support and counselling; this could be from a Bereavement Support Midwife, Specialist Screening Midwife or counsellor who can provide support from diagnosis of the miscarriage until well into the postnatal period. They will also be able to offer continuity and psychological support in subsequent pregnancies. Information of support organisations

and groups should be offered. If the woman has ongoing psychological concerns or a known psychiatric disease the General Practitioner and Health Visitor should be made aware of this.

As soon as practically possible, involve your Trust's Bereavement Midwife, Specialist Midwife or Counsellor to provide ongoing support.

Lactation suppression

Suppression of lactation should be discussed. Offer Cabergoline 1mg as a single dose from 18 weeks gestation unless contra-indicated or there is maternal hypertension or puerperal psychosis. For rarer contraindications see the ICP.

Contraception

Contraception should be discussed before discharge home.

Investigation of Miscarriage

The aim of investigation is to determine the cause of miscarriage. Investigations are closely aligned with the investigations following a stillbirth. There should be clarity as to who is responsible for reviewing and acting upon the results of tests ordered. Establishing a cause and effect relationship may be difficult. Causation is well established for chromosomal and fetal structural problems. However, depending on how extensively the woman wishes to be investigated, the cause of second trimester loss may remain unexplained in up to half of cases.[1]

Causes include fetal structural abnormalities, maternal uterine abnormalities and cervical insufficiency or incompetence.[27] Many studies have shown associations between pregnancy loss after 20 weeks gestation and Factor V Leiden mutation, protein S deficiency and the prothrombin G2021 mutation.[28] Antiphospholipid antibodies can cause placental thrombosis resulting in an increased risk of second and third trimester pregnancy loss.[29] Chromosomal abnormalities also cause second trimester loss.

Infection has been implicated in 10-25% of second trimester pregnancy losses.[29] Many infectious agents have been suggested, including bacteria, spirochetes, protozoa, viruses and fungi.[30] Bacterial vaginosis has been associated with second trimester pregnancy loss and treating it may reduce risk of late miscarriage in women with a history of preterm delivery[31,32,33]

Post mortem examination and placental histology should be offered to all women who experience a second trimester miscarriage. All post mortems and all placental histology from pregnancies16+0 weeks or above should be processed by pathologists with expertise in perinatal pathology. Within Greater Manchester this is the perinatal histopathology service at Royal Manchester Children's Hospital. Within Cheshire and Merseyside this is Alder Hey Children's Hospital. Below 16+0 weeks if no post mortem is requested, placental histology should be carried out locally.

Gestation should not determine whether a post mortem is offered, though parents and clinicians should understand that the information gained at early gestations might not be as helpful. To support parents to make an informed decision regarding post mortem examination, see appendix 4.

If parents decline a post mortem the placental examination is vital. Even if nothing specific is identified on placental histology the negative finding is always useful. The placenta may, however, show an unexpected positive finding that may have implications especially in cases such as recurrent pregnancy loss as part of an undiagnosed autoimmune spectrum.

Before taking any investigations, a history should be taken to appreciate the clinical presentation to guide investigations. Under-investigation impedes efforts at gaining an accurate diagnosis however unfocussed investigation could yield results which were not contributory to the loss, thus clinicians should consider the clinico-pathological correlation between abnormal investigation results and the clinical condition.

Investigation Following Termination of Pregnancy

Where there is a known or suspected fetal abnormality, investigations should be advised by a Consultant Obstetrician.

The following investigations should be offered to ALL parents experiencing a miscarriage:

1. **Screen for fetal infections**
   a. Placental swabs from both maternal and fetal aspects
   b. Maternal serology for TORCH screen and Parvovirus B19

2. **Thrombophilia screen**
   At delivery:
   - Lupus anticoagulant
   - Anticardiolipin antibodies

   At least 6 weeks postnatal:
   - Factor V Leiden
   - Protein C
   - Protein S
   - Antithrombin
   - Prothrombin gene variants

   If anticardiolipin antibodies or Lupus anticoagulant were positive at delivery they should be repeated 12 weeks after delivery. Protein S is usually low at delivery so may also need repeating to ensure it has normalised.

3. **Placental pathology** (appendix 5)
   This is recommended even if post mortem examination is declined (see previous page). Swabs and cord samples (if appropriate) should be taken prior to placing the placenta in formalin (in accordance with local policy) with the excess drained off prior to transport. The appropriate placental pathology request form should be completed and sent with the placenta as per local policy.

   In Greater Manchester, if no post mortem is requested, placental histology should be carried out locally at gestations below 16+0 weeks. If 16+0 weeks or above, or at any gestation if a post mortem is requested, the placenta should be processed by the perinatal histopathology service at Royal Manchester Children's Hospital.

   For Cheshire and Merseyside, placental histology should be carried out locally at gestations below 16+0 weeks (at Whiston Hospital). If 16+0 weeks or above, or at any gestation if a post mortem is requested, the placenta should be processed by the perinatal histopathology service at Alder Hey Children's Hospital.

4. **Post mortem examination**
   Post mortem should be offered to all parents who experience a second trimester loss, though the information obtained may be more limited at early gestations. Post mortem can be full, when all organs are examined, or limited to specific locations e.g. head, chest or abdomen. The parents should be provided with post mortem patient information leaflets – examples can

be found at:
http://www.hta.gov.uk/licensingandinspections/sectorspecificinformation/postmortem/perinatalpostmortem/thesandsperinatalpostmortemconsentpackageincludingformdownloads.cfm.

Offer the parents the opportunity to discuss their options. If a post mortem is accepted, informed written consent should be taken by an appropriately trained individual. See appendix 6 for consent forms and help sheet.

Selective Investigation (only perform if there is a clinical indication)

1. **If Rh negative or clinical suspicion over 20 weeks**
   Kleihauer for assessment of the volume of feto-maternal haemorrhage is required when a woman who is D negative experiences a potentially sensitising event after 20 weeks gestation and after the birth of a D positive baby. Initial screening should be carried out by a Kleihauer test irrespective of Rhesus status to identify and quantify feto-maternal haemorrhage. This should be taken as early as possible after presentation, especially if trauma to the abdomen, antepartum haemorrhage, pale baby, known vasa praevia. As a Kleihauer is not routinely performed for Rhesus positive women, the clinical reason should be clearly documented on the request form. The request may need to be discussed with laboratory staff and the reason for the request explained to minimise the chance of sample rejection.

2. **If 16+0 weeks and above**
   External examination of the baby should be offered.
   A detailed external assessment should be possible from 16 weeks. See page 9 of the ICP.

3. **If the mother has fever, flu-like symptoms, abnormal liquor (purulent or offensive) or prolonged ruptured membranes**
   Maternal infection screening should be performed including
   - Listeria monocytogenes and Chlamydia spp.:
   - Maternal blood cultures
   - MSSU
   - HVS
   - Endocervical swabs

4. **If fetal anomaly diagnosed or chromosomal abnormality suspected:**

   4 (a) Offer fetal chromosome analysis (with the exception of an isolated neural tube defect). If parents accept, they should sign the relevant box on page 12 in the ICP. Place 2-3cm of umbilical cord in a leak-proof, dry, sterile, plastic container, or sterile saline if stored overnight (**not formalin**). The container should be carefully labelled, wrapped with absorbent material and placed in a sealable polythene sample bag.

   Do not send cord samples routinely, or for fetal sexing. See appendix 7 for full referral criteria. If in doubt contact the cytogenetics service. For Greater Manchester, this is St Mary's Hospital on 0161 276 6553. For Cheshire and Merseyside this is Liverpool Women's Hospital 0151 702 4229.

   If there is no identifiable or obtainable umbilical cord
   Take a $2cm^3$ sample of placenta and send in saline to cytogenetics lab as soon as practically possible. This needs to be performed even if proceeding to post mortem examination or clinical genetic examination.

   4 (b) Genetic examination of the baby should be offered (with the exception of isolated neural tube defects or other abnormalities which are unlikely to have a genetic cause). This excludes spina bifida or other abnormalities which are unlikely to have a genetic association. This should be discussed with clinical genetics. For Greater Manchester this is St Mary's Hospital 0161 276 6506. For Cheshire and Merseyside,

this is Liverpool Womens Hospital 0151 702 4228/4229. The post mortem consent form should be used to obtain consent for this examination. The baby should be transferred dry to the mortuary who will arrange transfer to the appropriate hospital by the trust contracted funeral directors.

5. **If history suggests maternal substance abuse**
   Maternal urine for cocaine metabolites (maternal consent required)

6. **If hydrops fetalis is present**

- Red cell antibody screen
- Maternal anti-Ro and anti-LA antibodies (also test if PM shows endomyocardial fibroelastosis or AV node calcification)

7. **If fetal intracranial haemorrhage** (on post mortem examination)
   Maternal alloimmune anti-platelet antibodies. Blood samples required from mother and father.

8. **If there is no obvious cause**
   - Thyroid function tests
   - HbA1C

   Both can be taken following delivery.

Please note:

Parental chromosomes are not routinely required. They should be obtained **only if**:

- Fetal chromosomal analysis shows an unbalanced translocation
- Fetal karyotype fails with a fetal abnormality on ultrasound or post mortem

Further Management of Baby Including Transfer and Funeral Arrangements

Transfer of baby to the mortuary

Allow parents the time they wish to spend with their baby before transferring the baby to the mortuary. Prior to transfer, ensure two name bands are completed stating “baby of (mother’s name), mother’s hospital number, date and time of delivery as well as hospital delivered at”. Attach one name band to the baby. At earlier gestations place the name band around baby’s abdomen.

Some trusts wrap the baby in a sheet or infant body bag, ensuring that all body parts including the face are covered. The second name band should be attached or inserted into the transport window of the infant body bag (if used). If any personal items, such as a teddy bear, or any jewellery items are to accompany the baby, then these should be labelled with baby’s identification bands.

Arrange transfer and if parents wish to accompany their baby, notify the Anatomical Pathology Technician (APT) first; a member of maternity staff must accompany the family.

Taking baby home

Occasionally the family may wish to take their baby home. This is not always ideal as the baby may deteriorate rapidly and parents should be informed of this, especially if they wish to have a post mortem. The parents’ wishes should be supported. There is no legal reason why they cannot take their baby home or directly to the funeral directors of choice. The baby must be taken home in an appropriate casket or Moses basket. The transport home must be appropriate ie private not public transport. The mortuary must be informed if the parents are taking their baby home.

Some hospices offer the use of a cold room facility (see appendix 9). This allows the family to stay with the baby and say goodbye in a supportive environment. This is a place where babies can lay at rest after their death until the day of their funeral. See http://www.neonatalnetwork.co.uk/hospice-care/file/Hospice%20Information%252Edocx

Whilst there is no legal requirement to bury or cremate babies who are miscarried <24 weeks gestation, many families will wish to. Parents should be given details of the options available, which may depend on gestation and the contract held with the funeral director and the crematorium, but include hospital cremation, private burial or private cremation. Some hospitals offer both individual cremation and shared cremation. In a shared cremation, several babies are cremated at the same time.

If the parents would like the hospital to help them with the funeral arrangements, refer to local hospital policy. Document what arrangements are likely to be carried out. Complete a certificate for burial or cremation (disposal) and send to the dedicated individuals in your trust i.e. mortuary or bereavement centre. If the family are arranging their own funeral the certificate of disposal should be sent with the family who should be advised to give it to their funeral director.

If a hospital cremation is chosen ask the parents what they wish to do with the ashes. If they wish to collect them advise when and where this will occur. If they do not, or if the trust policy is to scatter ashes in a designated place eg baby garden, ask the parents if they wish to know when this will occur. At very early gestations, or if the hospital offers shared cremation only then the parents should be informed that there will not be any individual ashes to collect.

Further advice and information on sensitive disposal of fetal remains can be found in the frequently asked questions section of the Human Tissue Authority website:
https://www.hta.gov.uk/faqs/disposal-pregnancy-remains-faqs

After discharge

After the parents have returned to their home environment, they can arrange to return to hospital to see their baby. Follow local policy to advise the parents who they should contact to make arrangements, eg bereavement office, mortuary.

When such a request is received
1. Obtain the parents' contact number
2. Check whether the baby is still on hospital premises, especially if transferred out for post-mortem. Viewings are arranged on an individual basis.
3. Give the parents the name of the person who will meet / accompany them.
4. Check that the baby is lying peacefully; (clothes and hat for the baby if the parents wish at later gestations).

Other Postnatal Considerations

All outstanding appointments with midwifery, ultrasound or medical staff should be cancelled to avoid potential upset. A letter should be sent to the mother's GP to explain that she has had a pregnancy loss.

Antenatal screening results

There should be a robust method of communication with the screening midwife. First and second trimester screening results should still be communicated to the mother in the event of pregnancy loss. This must be done sensitively, for example by letter expressing condolences. See appendix 10 for a template letter.

Follow up

Discuss with the mother, when and where the postnatal follow up should take place. An appointment with the appropriate Consultant Obstetrician or Gynaecologist should be offered, maintaining continuity where possible. Explain to the parents that it may take 8 weeks or more to receive investigation results and post mortem report. If the parents do not wish to return to see the Consultant, it is good practice to send a letter to the family and the mother's General Practitioner.

Follow Up Visit

Follow up of parents after a pregnancy loss is a key element of care, with an opportunity to assess maternal recovery both physically and psychologically as well as to convey information about investigations performed and put in place a management plan for future pregnancies if that may be considered in the future.

Particular care should be taken with women with a history of psychiatric illness and the vulnerable groups of women, with a high standard of communication across all health professionals such as psychiatrist, GPs and health visitors.

Preparation is essential for any such consultation as patients who have experienced a pregnancy loss should not have the trauma of an unprepared consultation added onto that experience. It should be noted what the parents' wishes are for follow up appointments.

If the parents have given the baby a name, health care professionals should use the baby's name in discussions with the family.

Prior to Consultation:

1. Ensure all results are available
2. Notes of any case review are available

At Consultation:

1. Results of investigations
2. Cause of miscarriage, if known
3. Pre-pregnancy plan for next pregnancy
    a. Smoking status
    b. Folic acid advice
    c. BMI optimisation
    d. Any psychological issues
    e. Other medical issues
        i. Medications
        ii. Pre-pregnancy other medical conditions
4. Pregnancy plan for next pregnancy
    a. Book under Consultant Obstetrician
    b. Consider whether aspirin or LMWH are indicated
    c. Consider cervical length scans depending on presentation and likely cause of miscarriage
    d. Offer extra ultrasound scans for reassurance
5. Consider extra precautions for post natal depression
6. Write a letter to the parents as well as communicating with their GP

Governance

The audit standards can be found in appendix 11.

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Support Organisations & Groups

ARC *Antenatal Results & Choices*	**Lullaby Trust**
Support for parents whose baby is diagnosed with a fetal abnormality in pregnancy	*Sudden infant death bereavement support:*
Helpline: 0845 077 2290 or **0207 713 7486** via mobile	**Telephone: 0808 802 6868**
http://www.arc-uk.org/	http://www.lullabytrust.org.uk
Bliss *for babies born sick or premature*	**MIND**
Family support helpline offering guidance and support for premature and sick babies	*Promoting and supporting people with mental health problems*
Helpline: 0808 801 0322	**Freephone : 0161 272 8205**
http://www.bliss.org.uk/	http://www.mind.org.uk/
Child Bereavement UK	**Samaritans**
Supports families and educates professionals when a baby or child of any age dies or is dying, or when a child is facing bereavement	*Confidential emotional support in times of despair*
Helpline: 0800 028 8840	**Telephone: 116 123**
www.childbereavementuk.org	http://www.samaritans.org/
Child Death Helpline	**Sands *Stillbirth & Neonatal Death Charity***
For all those affected by the death of a child	*Support for families affected by the death of a baby before, during or shortly after birth*.
Freephone: 0800 282 986 or **0808 800 6019** via mobile	**Telephone: 0207 436 5881**
http://childdeathhelpline.org.uk/	http://www.uk-sands.org
Children of Jannah	**Saneline**
Support for bereaved Muslim families in the UK	*Emotional support and information for people with mental health problems*
Telephone: 0161 480 5156	**Telephone: 0845 7678000**
www.childrenofjannah.com	http://www.sane.org.uk/
Contact a Family	**TAMBA (Twins & Multiple Birth Association)**
Support and information about specific conditions	*Bereavement and special needs support groups*
Telephone: 0808 808 3555	**Telephone: 01252 332344**
http://www.cafamily.org.uk/	http://www.tamba.org.uk/bereavement
Cruse Bereavement Care	**The Miscarriage Association**
For adults and children who are grieving	*Support for parents who have experienced miscarriage*
Telephone: 0808 808 1677	**Telephone: 01924 200 799**
http://www.cruse.org.uk/bereavement-services/	http://www.miscarriageassociation.org.uk/
Listening Ear	**The Compassionate Friends UK**
Free self referral counselling to help deal with anxiety, bereavement and depression	*Offering support after the death of a child at any age.*
Telephone: 0151 487 9177	**Helpline: 0845 123 2304**
http://listening-ear.co.uk/	www.tcf.org.uk

Appendices

Appendix 1 - The Miscarriage Association Late Miscarriage Leaflet

Late Miscarriage May 2016.pdf

Appendix 2 - Coroner's Referral Forms

Greater Manchester and Eastern Cheshire	Cheshire and Mersey
 Coroners referral form Manchester_01(http://www.manchester.gov.uk/downloads/download/6032/coroners_referral_form_-_for_use_by_medical_practitioners_only	e-referral

Appendix 3 - Sands - Miscarriage Certificates For Parents

Certificate for the mother and father of

Certificate for the mother of a baby whc

Certificate for the father of a baby who

Certificate for the mothers of a baby wh

Certificate for the fathers of a baby wh(

Appendix 4 - Sands - Deciding about a post mortem examination: Information for Parents

Deciding_about_a_post_mortem_-_inform

Appendix 5 - Placental Pathology

Greater Manchester and Eastern Cheshire	Lancashire, South Cumbria, Cheshire and Merseyside	
	If below 16 weeks Whiston Hospital, St Helens & Knowsley Trust	If more than 16 weeks Alder Hey Children's Hospital
Appendix 5 Placenta instructions ver4 200 Appendix 5 Placenta Request form ver4 20	Histology cytology form Whiston.pdf	Examination of placenta form_recd 1

Appendix 6 - Post Mortem Consent Form, Request Form

Greater Manchester and Eastern Cheshire	Lancashire, South Cumbria, Cheshire and Merseyside
Post mortem help sheet for consent for Post mortem consent form CMFT.pdf	Controlled_Documen t_Post mortem consei Examination of fetus form_recd 10.10.16.p

Appendix 7 - Cytogenetic Testing

Greater Manchester and Eastern Cheshire	Lancashire, South Cumbria, Cheshire and Merseyside
Cytogenetic Analysis Referral Criteria_CMF Manchester Cytogenetic Test Rec	Cytogenetics form_LWH recd 10.1(LWH Clinical Genetics_Referral_Fc

Appendix 8 - Butterfly Project

Guidance for health care professionals_Se

Butterfly project Guidance leaflet V2.0

Parent_PIL_Butterfly _v1_March2015.pdf

Web Guidelines v1 3 30 April 2015.pdf

Butterfly logo i.PNG

Appendix 9 - Information on Hospices in the Northwest

NWNODN Hospice Information_January

Appendix 10 - Miscarriage Screening Results Letter

Miscarriage screening results lette

Appendix 11 - Auditable Points and Data Collection

Diagnosis	
Gestation	_____
Clinical	☐ Yes ☐ No
Ultrasound used for diagnosis	☐ Yes ☐ No ☐ N/A
Confirmation by second practitioner	☐ Yes ☐ No *If no, state reason*_____ _____
Discussion regarding management	☐ Yes ☐ No
Patient information leaflet given	☐ Yes ☐ No
Delivery	
Indication for immediate delivery	☐ Yes ☐ No *If yes, what:* ☐ *maternal sepsis* ☐ *significant bleeding* ☐ *other - please state* _____ _____ *If no, was expectant management offered*? ☐ *Yes* ☐ *No*
Induction regime followed Mifepristone 200mg	☐ Yes ☐ No
Misoprostol regime followed 13^{+0} – 17+6 weeks 200mcg 6 hourly 18^{+0} - 23^{+6} weeks 100mcg 6 hourly If TOP, 400mcg 3 hourly	☐ Yes ☐ No *If no, what was given*? _____
How many doses of misoprostol were required?	_____
Induction to delivery interval	_____
Counselling offered	☐ Yes ☐ No
Investigation	
Post mortem leaflet given	☐ Yes ☐ No
Post mortem offered	☐ Yes ☐ No
Post mortem accepted	☐ Yes ☐ No
Where was the post mortem performed	☐ Secondary ☐ Tertiary
Placenta sent for histology	☐ Yes ☐ No
Was placental histology performed by a specialised centre?	☐ Yes ☐ No
Follow Up	
Grade of doctor seen by	_____
Cause of pregnancy loss known	☐ Yes ☐ No
Final diagnosis documented	☐ Yes ☐ No
What was the final diagnosis	_____
Pre-pregnancy plan documented Smoker status If smoker, offered smoking cessation If BMI >25 advice given	 ☐ Yes ☐ No ☐ Yes ☐ No ☐ Yes ☐ No
Plan for future pregnancy made	☐ Yes ☐ No *Comments* _____ _____
Letter written to parents	☐ Yes ☐ No
Letter to GP	☐ Yes ☐ No

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