The Shrewsbury and Telford Hospital NHS Trust

Second Trimester Miscarriage: Investigation and Management (13+0 – 15+6weeks)

Version 4

Lead Person(s)	:	Mr G Calcott, Consultant Obstetrician and Gynaecologist
Care Group	:	Women and Children's
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Comments	:	References to SaTH Guidelines in the text pertain to the latest version of the Guideline on the intranet. Printed copies may not be the most up to date version.

For Triennial Review

Version	Implementation Date	History	Ratified By	Full Review Date
1	3rd July 2015	New	Gynae Governance	July 2018
1.1	2nd May 2017	Minor amendments	Gynae Governance	July 2018
2	22nd August 2017	Changes to Appendix 1 and Minor amendments including follow-up care of misoprostol	Gynae Governance	August 2021
3	September 2020	Reviewed by Mr Calcott – no changes		September 2023
4	4th November 2024	Full re-write to include investigation and management. Change to dosing regime.	Gynaecology Clinical Governance	November 2027

For care of women with second trimester miscarriage from 16+0 weeks onwards refer to the maternity guideline:

Fetal loss and early neonatal death

Appendix 1: Investigations
Appendix 2: Dosing Regime – further evidence

1.0 Introduction

Following the scan diagnosis of non-viable pregnancy >12/40 gestation, options offered to patients will include medical management, conservative and surgical management.

The drugs used for medical management of miscarriage are mifepristone and Misoprostol

2.0 Aim(s)

To aim that optimum care is given and to provide a framework for appropriate management.

3.0 Objectives

3.1 To provide patients with advice regarding choice of management and associated risk factors
3.2 To ensure safety of patients at all times
3.3 To provide psychological and emotional support

4.0 Criteria

Non-viable Fetus from 13+0/40 – 15+6 weeks gestation based on dating ultrasound scan (or from scan at the time of loss if no previous dating scan performed)

5.0 Process

5.1 Initial assessment

All women should have a full clinical assessment at diagnosis to assess suitably of the different management options. Assessment should include:

- Full observations
- Full history including previous uterine surgery/caesarean section
- Abdominal examination looking for uterine tenderness
- Speculum examination where abnormal discharge or bleeding present

- FBC, MRSA should be taken and Group and Save if blood group unknown
- Infection screen should be performed in maternal infection is suspected (CRP, Blood cultures)
- Late miscarriage bloods to be taken (see Appendix 1)
- Ensure VTE assessment is completed (based on RCOG criteria)

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.

5.2 Medications

The choice of medications, and inpatient vs outpatient treatment will be made based on the patient's symptoms and medical history. Women who are already bleeding with an open OS are unlikely to benefit from mifepristone and should be admitted directly at first contact. Mifepristone in a woman already bleeding will increase the risk of causing a miscarriage at home.

The following table gives the important contraindications and side effects of mifepristone and misoprostol.

Whilst it would be usual to allow 24-48hours between mifepristone and misoprostol, the misoprostol can be started earlier than this where clinically appropriate, but may be less effective.

Mifepristone 200mg	**Misoprostol 400mcgs pv every 4-6 hours (maximum 5 doses before consultant review)**
Contraindications	
▪ Asthma ▪ Chronic adrenal failure ▪ Acute porphyria	▪ Allergy to prostaglandins ▪ Anti coagulant therapy ▪ Clotting disorders ▪ Asthma ▪ Hypertension ▪ Mitral Stenosis ▪ Heavy Smokers ▪ Anaemia <9.5g/dl
Side Effects	
▪ Abdominal pain ▪ Vaginal bleeding ▪ Rash ▪ Urticaria ▪ Hypotension ▪ Malaise ▪ Headache ▪ Fever ▪ Hot flushes ▪ Dizziness ▪ Chills ▪ Infections	▪ Diarrhoea ▪ Abdominal pain ▪ Dyspepsia ▪ Nausea/vomiting ▪ Skin rashes ▪ Dizziness

5.3 Medical Management of Delayed Miscarriage

5.3.1 1st Visit – Consent and Mifepristone

- Discuss the procedure, risk factors and side effects
- Date and time given to patient for arrival for procedure
- On arrival to EPAS, admission details and medical history should be taken
- Full set of observations
- Written consent obtained by medical team
- Sensitive disposal and histology/post mortem forms to be completed as necessary
    - Second trimester placentae should be sent for assessment at the Birmingham women's hospital using the appropriate perinatal pathology request form (available in EPAS or delivery suite)
- Medical management care pathway and history form to be completed
- Mifepristone +/- anti-emetic prescribed by medical doctor and administered by EPAS nurse
- Patient is to be allowed home with appropriate advice, contact telephone numbers, information leaflet and advice
- Patient is to be advised regarding heavy bleeding and delivery of fetus and placenta and to have someone with her during treatment.
- If this occurs she is to phone and attend for prompt assessment at either EPAS, GATU or Gynaecology Ward
- Where bleeding is heavy she should be instructed to call an ambulance.
- Appointment made for planned admission to gynaecology ward after 24-48 hours.

5.3.2 2nd visit Administration of Misoprostol

- Patient to attend EPAS at given time
- Re-advise patient about side effects and risk factors
- Misoprostol 400mcgs given vaginally
- Observe for 4 hours or until pain and bleeding subsides, then give 400mcg every 4-6 hours, 5 doses maximum
  - Consider reduced dose of 200mcg if 2 or more previous caesarean sections/uterine surgery

- Offer analgesia and anti-emetics – Ibruprofen/paracetamol as appropriate
- Once fetus has been delivered, consider the options for memory making and support the woman's choices (see 5.4)
- On delivery of fetus, take to delivery suite fridge, with appropriate completed paperwork, fetus not for investigation dry in box, fetus for post mortem dry in bucket please refer to appendix 2.
- Offer to be made of follow up miscarriage support
  - Ensure patient details taken to EPAS to ensure follow up is made
- Anti D 1500 IU for Rhesus negative as per protocol

5.3.4 Follow-up care

- Inform EPAS of miscarriage
  - Follow-up appointment to be made with Early pregnancy consultant and bereavement EPAS nurse with the results of requested investigations.

5.3 If fetus has not delivered or incomplete miscarriage

- If fetus not delivered after 6 doses of misoprostol, for review by on call consultant to determine ongoing plan. Options would include:
  - Continuing medical treatment (see appendix 2 for more detail)
  - Surgical management
- If fetus has delivered but placental delivery is uncertain consider ultrasound scan. Ultrasound is not routinely required if the fetus and placenta have clearly delivered.
- If ultrasound is performed, any mixed echoes in the uterine cavity would constitute an incomplete miscarriage and should be managed accordingly. Options would include:
  - Further medical treatment
  - Surgical management
- Ultrasound has a poor ability to distinguish between retained placental tissue and blood clots and by itself should not affect the immediate management (as a large amount of either would carry an equally high risk of haemorrhage).

5.4 Emotional care and support including memory making

- Always remember the emotional impact of pregnancy loss
- Discuss with the woman about memory making as appropriate. Ideas would include:
  - photos of the baby along with hand and foot prints
  - write a letter or poem which they can place in our book of remembrance or keep themselves
  - Memory making packs and camera are stored in EPAS
- Speak with EPAS nurse who will be able to review and assist with memory making and follow up

6.0 Training

6.1 All staff receive in house training

6.2 All staff employed by SATH will be informed how to access guidelines on the intranet

6.3 Information regarding new and updated guidelines is circulated by email/memo to medical and nursing staff

7.0 References

Clinical practice handbook for quality abortion care. Geneva: World Health Organization; 2023. Licence: CC BY-NC-SA 3.0 IGO

Joint Formulary Committee. British National Formulary (online) London: BMJ and Pharmaceutical Press <http://www.medicinescomplete.com> [Accessed on 25th September 2024]

J. Trinder; P. Brocklehurst et al. Management of Miscarriage Expectant, Medical or Surgical? Results of Randomised Controlled Trial (Miscarriage Treatment (MIST) Trial) BMJ. May 2006. p1235-8

RCOG Green Top Guideline. Recurrent Miscarriage (Green-top Guideline No. 17) Published: 19 June 2023

Appendix 1

Investigations for all women with late miscarriage 13+0-15+6 weeks pregnant

Investigations listed below are for all women within the gynae setting who have an unexplained fetal loss 12+6-15+6 weeks of pregnancy.

A single request form for all bloods can be generated through the review system under maternity and then “late miscarriage”

Investigation

▪ Haematology	FBC Hba1c TSH G&S Coagulation screen Lupus anticoagulant (DRVV) Anti-Cardiolipin antibodies
▪ Microbiology	MSSU HVS + Chlamydia screening
▪ Histology	Placenta sent for perinatal pathology/histology
▪ Full Post Mortem	Requested via perinatal pathology service unless known reason for loss (eg known anomaly).

Testing for inherited thrombophilia would only be considered on an individual basis at consultant level and in discussion with a haematologist.

Appendix 2 – Dosing

Studies looking at the use of misoprostol for miscarriage have used a wide variety of dosages, and there is no consensus that has been reached as to the optimum regime. There is no UK guidance to specifies a particular dose regime.

Mifepristone and misoprostol are not licensed for use in the management of miscarriage, but are licensed for medical termination of pregnancy. It would be expected that the uterus would be more responsive to abortifacients in the case of miscarriage as opposed to a live pregnancy, and therefore a reduced dose is often suggested.

From the BNF, the regimes for medical termination of pregnancy at 13-24 weeks would be:

> 800 micrograms for 1 dose, dose to be given 36–48 hours after mifepristone, followed by (by vagina or by mouth) 400 micrograms every 3 hours if required for a maximum of 4 doses, if abortion has not occurred 3 hours after the last dose of misoprostol, a further dose of mifepristone may be given, and misoprostol may be recommenced 12 hours later.

The dosing schedule chosen for this guideline is based on the recommendations from the World Health Organisation (WHO) guideline on

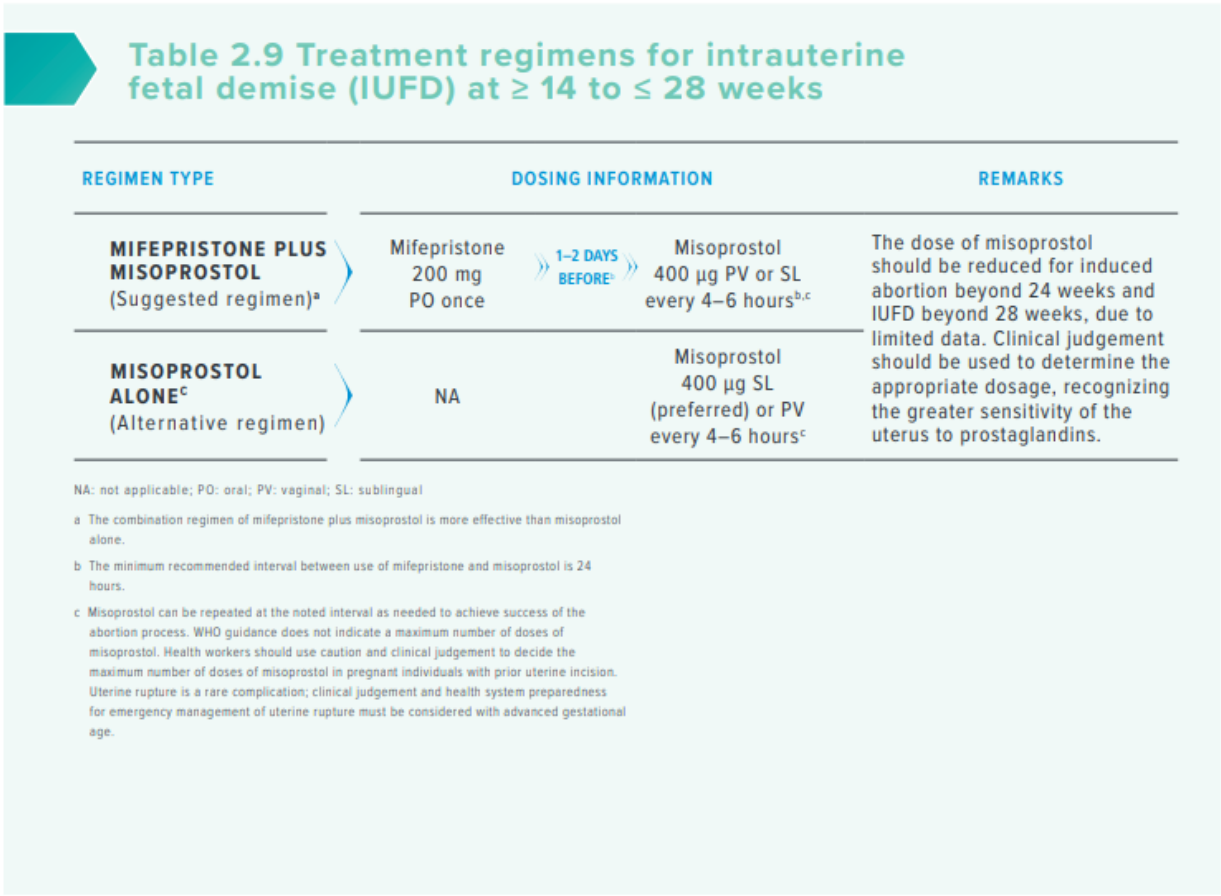

Table 2.9 Treatment regimens for intrauterine fetal demise (IUFD) at ≥ 14 to ≤ 28 weeks

REGIMEN TYPE	DOSING INFORMATION			REMARKS
MIFEPRISTONE PLUS MISOPROSTOL (Suggested regimen)[a]	Mifepristone 200 mg PO once	1–2 DAYS BEFORE[b]	Misoprostol 400 µg PV or SL every 4–6 hours[b,c]	The dose of misoprostol should be reduced for induced abortion beyond 24 weeks and IUFD beyond 28 weeks, due to limited data. Clinical judgement should be used to determine the appropriate dosage, recognizing the greater sensitivity of the uterus to prostaglandins.
MISOPROSTOL ALONE[c] (Alternative regimen)	NA		Misoprostol 400 µg SL (preferred) or PV every 4–6 hours[c]	

NA: not applicable; PO: oral; PV: vaginal; SL: sublingual

a The combination regimen of mifepristone plus misoprostol is more effective than misoprostol alone.

b The minimum recommended interval between use of mifepristone and misoprostol is 24 hours.

c Misoprostol can be repeated at the noted interval as needed to achieve success of the abortion process. WHO guidance does not indicate a maximum number of doses of misoprostol. Health workers should use caution and clinical judgement to decide the maximum number of doses of misoprostol in pregnant individuals with prior uterine incision. Uterine rupture is a rare complication; clinical judgement and health system preparedness for emergency management of uterine rupture must be considered with advanced gestational age.

[WHO – Clinical practice handbook for quality abortion care 2023]

If however, there is no response to the initial round of treatment, based on the recommendations from the BNF and RCOG Abortion care guidance, it would be reasonable (in the absence of uterine scarring) to follow the dosing schedule suggested for termination of pregnancy in the second trimester.