NHS
University Hospitals Sussex
NHS Foundation Trust
St Richards, Worthing & Southlands Hospitals

Management of Miscarriage and Early Pregnancy loss

Summary statement: How does the document support patient care?	By providing evidence based guidance for staff in the management of miscarriage
Staff/stakeholders involved in development:	Clinical Leads for Early Pregnancy Service, Leads for Gynaecology Risk Management, Labour Ward Leads (Obstetric and Midwifery), Joint Obstetrics and Gynaecology Guidelines Group
Division:	Women and Children's
Department:	Gynaecology
Responsible Person:	Chief of Service
Author:	Clinical Leads for Early Pregnancy Service including Gynaecology Matron, Gynaecology Q, I & I Matron and Clinical Nurse Specialist
For use by:	Gynaecology, Obstetric, A & E and Midwifery staff
Purpose:	To provide clear evidence-based guidance on the management of miscarriage
This document supports:	NICE guideline NG126; Ectopic pregnancy and miscarriage: diagnosis and initial management, April 2019, updated November 2021 RCOG Diagnosis and management of Ectopic Pregnancy - Green-top Guideline No. 21, November 2016
Key related documents:	**UH Sussex (SRH & WH) Maternity Guidelines:** Ectopic Pregnancy (including pregnancies of unknown location)
Approved by:	Maternity Joint Obstetric and Gynaecology Guidelines Group Medicines Governance Committee: 13th December 2022
Approval date:	16TH November 2022 Date uploaded:14th December 2022
Ratified by Board of Directors/ Committee of the Board of Directors	Not Applicable – Divisional Ratification only required
Ratification Date:	Not Applicable – Divisional Ratification only required
Expiry Date:	June 2023
Review date:	December 2022
If you require this document in another format such as Braille, large print, audio or another language please contact the Trusts Communications Team	
Reference Number:	CG14004

Version	Date	Author	Status	Comment
1.0	November 2013	Consultant Obstetrician	Archived	New Trust guideline
2.0	January 2016	Consultant Obstetrician	Archive	Reviewed – No amendments made
3.0	January 2019	Clinical Lead for Early Pregnancy Service including Gynaecology Matron and Clinical Nurse Specialist	Archived	Amended and updated
4.0	November 2022	Gynaecology Quality, Innovation and Improvement Matron Clinical Lead for Early Pregnancy Service	LIVE	Amended and updated Addition of MVA for management of miscarriage Addition of the use of vaginal micronised progesterone

Contents

Management of Miscarriage and Early Pregnancy loss

1.0 Aim

The aim is to provide clear guidance for all staff caring for women with early pregnancy complications.

2.0 Scope

This guideline applies to:

- Early Pregnancy Assessment Unit (EPAC) staff
- Accident & Emergency (A & E) staff
- Ward Nursing Staff
- Sonographers
- Gynaecologists
- Obstetricians
- Midwives
- General Practitioners (GPs)

3.0 Responsibilities

- Obstetricians and Gynaecologists, A & E, Sonographers, EPAC, Midwives and Nursing staff
  1. To access, read, understand and follow this guidance
  2. To use their professional judgement in application of this guideline
  3. This guidance is for staff employed by University Hospitals Sussex (SRH & WH) Trust. The guidance is flexible and should be tailored to the individual circumstances of the patient. If the guidance is not being followed, documentation of the reasoning and/or justification is essential, with clear documentation of alternative plans and discussions.

- Management:
  1. To ensure the guideline is reviewed as required in line with Trust and National recommendations
  2. To ensure the guideline is accessible to all relevant staff

4.0 Introduction

Early pregnancy loss accounts for over 50,000 admissions in the UK annually (The Health and Social Care information Centre, 2012). Approximately 1 in 4 pregnancies end in miscarriage and this can cause considerable distress to women and their carers (Miscarriage Association). Miscarriage and ectopic pregnancy have an adverse effect on the quality of life of many women.

There is an early pregnancy assessment clinic (EPAC) situated within St Richards' and Worthing Hospitals. The clinic is only for patients with pain and/or bleeding in early pregnancy up to 18 weeks. A pregnancy test should be positive prior to referral. Patients can be referred by their GP, A&E or community midwives (See Appendix 1 for the referral pathways and forms).

4.1 Abbreviations

SRH St Richards Hospital	**WH** Worthing Hospital
A&E Accident and Emergency	**GDU** Gynae Day Unit
EPAC Early Pregnancy Assessment Clinic	**MMM** Medical management of miscarriage
PUL Pregnancy of Unknown Location	**MVA** Manual Vacuum Aspiration
MSD mean sac diameter(s)	**SMM** Surgical management of miscarriage
Crown Rump Length (CRL)	**G&S** Group & Save
FBC Full blood count	**BHCG** Beta-Human Chorionic Gonadotropin
BP Blood pressure	**NSAIDs** Non-Steroidal Anti Inflammatory Drugs
P Pulse	**O&G** Obstetrics and Gynaecology
IV Intravenous	**hCG** Human Chorionic Gonadotropin
PV Per vaginal	**LFT** Liver Function Test
POC Products of conception	**PUV** Pregnancy of uncertain viability
RPOC Retained products of conception	**U&Es** Urea & Electrolytes
TAS Transabdominal Scan	**TVS** Transvaginal Scan

5.0 Early Pregnancy Assessment Clinics

5.1 At Worthing Hospital

EPAC - Monday to Friday 8-2pm

- Between 8am - 2pm telephone EPAC on 01903 285165
- Between 2pm and 8pm telephone Gynaecology Day Unit on GDU on 01903 285147
- Ladies will be contacted with the next available appointment.

Out of Hours Mon – Friday 8pm – 8am and Weekends

- An email referral can be sent to epac.wgh@nhs.net
- Telephone Bramber Ward on 01903 285144 this referral will then be passed onto EPAC on the next working day and patients will be contacted as above.

Complete the proforma with the patients' details.

The EPAC nurse will contact the patient to discuss their referral as it may be that not all patients will require an appointment. Ensure patients are aware that appointments will be the next available and this may not be the next day.

5.2 At St Richards' Hospital

EPAC - Monday to Friday 8 - 1pm

- Telephone Gynae Outpatients on 01243 788122 ext 32874/35278 the receptionist will take a message and pass the patient details onto EPAC.
- They will be contacted with the next available appointment.

Out of Hours Mon – Friday 1pm - 8 am and weekends

- Between 1pm and 5 m telephone Monday – Friday telephone Gynaecology Outpatients on 01243 788122 ext 32874
- An email referral can be sent to epac.srh@nhs.net
- The on call SHO on Bleep 6100 will take the patients details and forward them to the EPAC Staff.

Complete the proforma with the patients' details (Appendix 1).
The EPAC nurse will contact the patient to discuss their referral as it may be that not all patients will require an appointment. Ensure patients are aware that appointments will be the next available and this may not be the next day. Do not advise patients that they will receive as an ultrasound scan or a next/same day appointment as this is not always required.

5.3 Clinical Assessment

Follow the flowchart in (Appendix 2).when a woman/person attends the early pregnancy unit (EPAC) or gynaecology day unit (GDU) with a positive pregnancy test.

6.0 Signs and Symptoms of Miscarriage

6.1 Common Symptoms:

- Abdominal cramps or pelvic pain
- Amenorrhoea or missed period with a positive pregnancy test
- Vaginal bleeding may vary from spotting to heavy bleeding with clots
- Passed products of conception
- Completely asymptomatic
- Loss of pregnancy symptoms

6.2 Common signs:

- Active vaginal bleeding
- Pain / cramps

- Cervical os open or closed
- Products of conception at the cervical os

6.3 Signs of miscarriage requiring urgent medical attention and or emergency surgical intervention:

- Significant pain
- Significant vaginal blood loss +/- large clots
- pallor
- Tachycardia (more than 100 beats per minute) or
- Hypotension (less than 100/60 mmHg)
- Shock, collapse, fainting +/- dizziness
- Cervical os open
- Products of conception (POC) at the cervical os
- Cervical shock (collapse)

7.0 Ultrasound Guidance for Women with pain and bleeding in Early Pregnancy

Women in a clinically stable condition between 6-12 weeks gestation with a positive pregnancy test will be offered an ultrasound scan in EPAC

The Sonographer or Qualified Scan Practitioner will perform the ultrasound scan in line with the Early Pregnancy Protocols.

7.1 Ultrasound Scan Protocol

This update was formulated following NICE Guidelines on Ectopic pregnancy and miscarriage published in April 2019 and updated November 2021(previously published 2012).

NICE advise that we should inform women that diagnosis of miscarriage using a single ultrasound scan (USS) cannot be guaranteed to be 100% accurate. Stating that there is a small chance that the diagnosis maybe incorrect, particularly at very early gestations. This had led to the development of the following guidance.

7.2 Scan Process and identification of patient:

1. The person scanning must confirm the patient's name and date of birth and first line of address in accordance with trust policy.
2. Verbal consent for a transvaginal scan must be obtained and a chaperone must be offered and if declined document on the report.

3. The name of the person scanning, and any assistant/colleague present at the time of the examination must appear on the report.
4. Scan reports must be typed onto viewpoint system and copied onto the CRIS system.
5. The examination must be processed on CRIS including the decontamination processes if a TVS is completed.
6. Images should be sent to PACS.

7.3 Reporting of scan findings:

All reports are to be standardised, therefore at these examinations the following should be assessed and representative images recorded (as appropriate);

a. Endometrial appearance and thickness if no evidence of gestational sac

b. Number of sacs and mean sac diameter(s) (MSD) – (if not fetal pole present) and appearance if irregular

c. The position or site of the sac within the uterus

d. The presence of any haematoma and size (at least 3 dimensions)

e. The presence/absence of a yolk sac and MSD

f. The presence/absence of an embryo plus Crown Rump Length (CRL)

g. Presence or absence of heart movement in the embryo (recorded in report)

h. The presence of the pregnancy in the uterine cavity incorporating the cervix should be clearly demonstrated and captured as an image.

i. Adnexa must be assessed any masses and their appearance, patient tenderness and vascularity and relation to other pelvic organs must be documented

j. Ovaries to be identified- document shape size, morphology and identify corpus luteum. If the ovaries are not seen image adnexa to include the iliac vessels and document visibly not seen.

k. Presence of free fluid to be documented and deepest pool measured report to include the appearance (anechoic or mixed).

On Viewpoint use the drop downs to the formulate report (do not free type). Use the BMUS charts to date by CRL and the gestational sac diameter (Appendix 3).

7.4 General Principles for all Early Pregnancy Scanning

- The transvaginal probe must be cleaned and disinfected, and covered with a probe cover for each scan. All decontamination events are to be documented / scanned onto CRIS. Throughout the examination the sonographer must hold the end of the probe cover to ensure that it is removed with the probe at the end of the examination.

- If in doubt or the findings are equivocal seek advice from a sonographer or colleague.

- State the name of the sonographer giving the second opinion in the scan report.

- A second opinion can be provided by another qualified sonographer, registrar who has obtained their early pregnancy scanning competency or a consultant (qualified ultrasound practitioner). The ultrasound list should not be significantly delayed by seeking a second opinion if it is not readily available in the EPAC setting.

- All scan reports must have a clear conclusion to classify the scan findings, the following conclusions should be used as appropriate in the scan report:
    - Viable intrauterine Pregnancy
    - Twin viable pregnancy
    - Delayed miscarriage/Anembyronic pregnancy
    - Incomplete miscarriage / Retained products of conception (RPOC)
    - Complete miscarriage
    - Pregnancy of unknown location (PUL)
    - Pregnancy of uncertain viability (PUV)
    - Ectopic pregnancy

- When carrying out a transabdominal (TA) or transvaginal ultrasound scan (TVS) the assessment must include the adnexae to see if there is a heterotopic pregnancy (NICE 2019).

7.5 Diagnosis and Classification of Miscarriage on USS

A. Delayed Miscarriage:

If the **CRL length is 7 mm or more** with a transvaginal scan (TVS), and there is **no visible heartbeat**:

- Seek a **second opinion** on the viability of the pregnancy
- **If a second opinion is not available** at the time of the appointment perform a second scan in the next available EPAC clinic
- The area of the fetal heart should be observed for approximately 30 seconds to confirm no cardiac activity utilising the M mode function if needed (ASUM, 2017).

If the **CRL is 7 mm or more** with a transabdominal scan, offer a TVS. If the patient declines a TVS record the CRL and perform a second scan 14 days from the first scan to make a diagnosis (NICE 2012).

If the **CRL is less than 7 mm** then a second scan must be a minimum of 7 days after the initial scan (NICE 2019). Conclude that this is a **pregnancy of uncertain viability (PUV)** at this stage**.**

At rescan, if there is a reduction in CRL or no change report it as a **delayed miscarriage** and refer to EPAC (ISUOG 2013).

If fetal viability continues to be uncertain the patient should be referred to an EPAC consultant so that the scan report is reviewed in context with the presenting clinical history and further management plan can be made.

B. Anembyronic Pregnancy:

If the **Mean Sac Diameter (MSD) is 25 mm or more** there is **no visible fetal pole** using a TV scan:

- **Seek a second opinion** on the viability of the pregnancy.
- **If a second opinion is not available at the time of the appointment perform a second scan in the next available EPAC clinic**

If there is no visible fetal pole and the MSD diameter is measured by a **TA scan** only:

- Record the size of the MSD
- Offer a TVS if declined explain diagnosis is inconclusive and a perform a second scan a minimum of 14 days after the first scan before making the diagnosis.

If the MSD is less than 25 mm on TVS and there is no fetal pole rescan a minimum of 7 days later (NICE 2019). Further scans may be needed before a diagnosis can be made. Report this as PUV.

C. Incomplete Miscarriage / Retained Products of Conception (RPOC):

- RPOC should be visualised on TVS unless contraindicated or declined by the patient. Record this on the VP report.
- RPOC of 15 mm AP diameter or more should be referred to the Gynae SHO or EPAC Nurse to review the patient.
- If RPOC is present it must be measured in three planes (L x AP x W). Document size, appearance and vascularity of any RPOC visualised. Also comment on any fundal dilation, if present. Report this as **incomplete** or **RPOC.**
- A thin and linear endometrium of less than 15mm AP diameter with no evidence of focal pathology can be classified as a '**complete miscarriage' if consistent with history of miscarriage and a negative pregnancy test (see E).**

D. Postpartum USS in patients less than six weeks post-delivery:

Where ultrasound is being considered it must be discussed with a consultant as there are limited indications for ultrasound after delivery**.**

All patients should be managed clinically in the first instance. The differential diagnosis of RPOC or endometritis should be made through history and examination.

If medical management fails then ultrasound may add to facilitating further management of the patient. However, interpretation of scan results is often misleading in these patients and leads to over diagnosis of retained products and recommendations for surgical management.

E. Complete Miscarriage

This can be diagnosed when

- There is no intrauterine pregnancy seen on ultrasound, the endometrial thickness is less than 15mm and the pregnancy test is negative
- There is no intrauterine pregnancy seen on ultrasound, the endometrial thickness is less than 15mm, the pregnancy test is positive but the patient has had a previous ultrasound scan showing an intrauterine pregnancy.

If the pregnancy test is positive, there is no intrauterine pregnancy seen on ultrasound and the endometrial thickness is less than 15mm but no previous scans have demonstrated an intrauterine pregnancy the PUL protocol should be followed.

F. Pregnancy Unknown Location (PUL)

If **no** fetal pole is evident with a positive **pregnancy test**, all patients **must** be offered a **TVS** scan to assess the endometrium, gestational sac (if present) ovaries and adnexae.

A gestational sac is defined by criteria in the table below, it is not necessary to see a yolk sac in order to be certain of a gestational sac.

	Pseudosac	Early IUP
Location	Along the cavity line, between endometrial layers	Below the midline echo buried into the endometrium
Shape	May change during scan, usually ovoid	Steady, usually round
Borders	Single layer	Double ring hyperechoic decidual reaction
Sac content	No yolk sac	Yolk sac seen by 5-6 weeks

- If no GS is seen on TVS, image and report endometrial thickness and appearance, status of ovaries, adnexal/POD free fluid and presence of any adnexal masses.
- Record the presence of a Corpus Luteum, and document size (90% of ectopic pregnancies will be on the side of the corpus luteum).
- Please ensure detailed documentation of the size, appearance and dimensions of any masses are noted.
- Please comment on any adnexal tenderness noted on TV scanning.
- Conclude report 'this is a **Pregnancy of unknown location',** or **Ectopic pregnancy** patient to be managed according to the EPAC protocols.

G. Ectopic Pregnancy

When carrying out transvaginal ultrasound scan in early pregnancy, it is important to look for the following signs which are indications of the possibility, high probability or existence of a tubal ectopic pregnancy:

- An empty uterus **or**
- A collection of fluid within the uterine cavity, (sometimes described as a pseudo-sac) that must be differentiated from an early intrauterine sac.
- An adnexal mass, moving separate to the ovary (sometimes called the 'sliding sign'), with an empty gestational sac (sometimes described as a 'tubal ring' or a 'bagel sign') **or**
- An adnexal mass, moving separate to the ovary, comprising a gestational sac and/or a yolk sac and/or a fetal pole (with or without a fetal heartbeat). (NICE 2019)
- A complex, inhomogeneous adnexal mass, moving separate to the ovary.
- Ensure the use of colour doppler when assessing an ectopic pregnancy.
- Report the location and enter the size in three dimensions.
- Report and measure any free fluid.

H. Pregnancy of Uncertain Viability (PUV).

- For findings of a gestational sac and yolk sac of approximately 4-5 weeks with no fetal pole report as "PUV." The sonographer should recommend the length of follow up required (minimum of 10 days).

- Check both ovaries & adnexa
- Refer to PUL guidance if necessary.

8.0 Management of Miscarriage

The options for care and management of women and people diagnosed with a miscarriage are demonstrated in the Management of Miscarriage flow chart (Appendix 4)

Histology is only requested if the tissue has a 'Molar' appearance on scan or macroscopic examination of the tissue.

8.1 Threatened Miscarriage

Advise a woman or person with a confirmed intrauterine pregnancy with a fetal heartbeat who presents with vaginal bleeding, but has no history of previous miscarriage, that:

- If her bleeding gets worse, or persists beyond 14 days, she should return for further assessment.
- If the bleeding stops, to start or continue with routine antenatal care (NICE 2012, amended 2021)

Once an intrauterine pregnancy is confirmed on ultrasound scan in a woman who presents with vaginal bleeding and who has had at least one previous miscarriage,

- Offer vaginal micronised progesterone (cyclogest) 400mg twice daily
- Advise her to continue progesterone until the17th week of pregnancy (NICE 2021)

8.2 Incomplete miscarriage

Women and people with significant bleeding and signs of shock should be examined to exclude evidence of products in the cervical os. If present these should be removed and sent for sensitive disposal.

All women and people with incomplete miscarriages should be offered conservative, surgical or medical management of miscarriage, unless the patient is haemodynamically unstable where urgent uterine evacuation is appropriate.

This is diagnosed when:

- There is no intrauterine pregnancy seen on ultrasound
- A clear clinical history of passing products of conception
- Endometrial thickness is **greater than 15mm volume**

8.3 Complete Miscarriage

This is diagnosed when:

- A previous ultrasound scan has confirmed an intrauterine pregnancy and there is no intrauterine pregnancy seen on the subsequent ultrasound
- Endometrial thickness is **less than 15mm**

Women and people who have not had a previous ultrasound scan confirming an intrauterine pregnancy will require follow up with beta hCG levels before a definitive diagnosis can be made in order to ensure an ectopic pregnancy is not missed

8.4 Pregnancy Testing Post Miscarriage

This applies to all women and people who have:

- Conservative management of miscarriage
- Spontaneous miscarriage
- Medical Management of miscarriage

It is recommended that we advise women and people to perform a home pregnancy test in 3 to 4 weeks and to contact EPAC if the result is positive (NICE 2012). On discharge EPAC should provide the patient with a pregnancy test and the instructions on how to perform this to try to minimise their distress at a difficult time.

There are currently 3 care options for the management of miscarriage: Expectant, Medical and Surgical Management.

8.5 Expectant management of miscarriage

Offer expectant management for 14 days as the first-line management strategy for women and people with a confirmed diagnosis of miscarriage. This initial decision can be changed at any time for an alternative management plan.

Discuss alternative options with a consultant for the following issues:

- increased risk of haemorrhage
- previous adverse and/or traumatic experience associated with pregnancy (e.g. stillbirth, miscarriage or antepartum haemorrhage)
- increased risk from the effects of haemorrhage (e.g. history of coagulopathies or is unable to have a blood transfusion)
- evidence of infection
- suggestion of molar pregnancy

Explain what expectant management involves and that this is successful in about 50 out of 100 women who choose this option. It can take some time before the bleeding starts and this may continue for up to 3 weeks (ref: RCOG patient info leaflet) Give all women and people undergoing expectant management of miscarriage verbal and written information about what to expect throughout the process, advice on pain relief and where and when to get help in an emergency.

The resolution of bleeding and pain indicate that the miscarriage has completed during the 14 days of expectant management, advise the woman or person to take a urine pregnancy test after 3 weeks, and to contact EPAC if it is still positive.

Offer a repeat scan if after the period of expectant management the bleeding and pain have not started (suggesting that the process of miscarriage has not begun) or if they are experiencing persistent and/or increasing pain and bleeding (suggesting an incomplete miscarriage).

Discuss all treatment options (continued expectant management, medical management, and surgical management) with the woman to allow her to make an informed choice.

Review the condition of a woman or person who opts for continued expectant management of miscarriage at a minimum of 14 days after the first follow-up appointment.

This management option will be unacceptable and distressing to some women and people, therefore the other options must be discussed.

8.5.1 Risks of expectant management of miscarriage

The risks of expectant management are:

- Infection 5:100
- Haemorrhage requiring transfusion
- Haemorrhage requiring emergency surgical management of miscarriage
- Retained products of conception requiring further intervention at a later date

8.6 Medical management of miscarriage as outpatient

Outpatient medical management should be offered for miscarriages less than or equal to 9 weeks gestation as measured on the ultrasound due to the increased risk of bleeding with advanced gestation. This is successful in 85 out of 100 women or people and avoids an anaesthetic.

Obtain an informed consent and prescribe Mifepristone 200 milligrams to be taken orally whilst in clinic or on the ward, followed by 800micrograms of misoprostol to be

administered PV 36-48 hours later. Request a full blood count (FBC) and group and save (G&S).

The misoprostol 800 micrograms can be administered vaginally at home 36-48 hours after the Mifepristone. Advise the woman or person to empty their bladder and lay down for a minimum of 30 minutes after insertion, a tampon can be inserted to ensure the tablets remain in place. The tampon can be removed after 30 minutes and then the use of sanitary pads is recommended whilst the bleeding continues. Offer all women and people a prescription or provide TTO packs for pain relief and anti-emetics. All women and people must have support at home from a responsible adult during this treatment.

If misoprostol is inserted within the clinic the woman or person needs to go home straight away as bleeding can start to occur within an hour.

If the miscarriage has not occurred after 48-72 hours the woman is asked contact GDU (WH) or EPAC (SRH) as a repeat dose of misoprostol might be required.

Offer women and people the opportunity to return with any products passed at home for sensitive disposal of fetal remains. The Trust policy for sensitive disposal would need to be implemented (see guidance on Trust Intranet, Appendix 5).

Each woman or person needs to be assessed on an individual basis to determine the suitability of her/their managing the miscarriage at home, for example in the management of the miscarriage of a twin pregnancy.

Provide verbal and written information to the woman or person to ensure they have a clear understanding of the process. This should include information on the length and extent of bleeding, levels of and the potential side effects of treatment diarrhoea and vomiting. If there is prolonged and/or heavy vaginal bleeding, an offensive vaginal discharge, pain unrelieved by analgesia, a raised temperature or the woman or person feels generally unwell she/they must attend A&E or contact GDU for a medical assessment.

Following treatment women and people are requested to perform a urine pregnancy test 3-4 weeks later unless they experience worsening symptoms, in which case advise them to contact GDU (WH) or EPAC (SRH). If the urine pregnancy test is positive after 3-4 weeks advise them to contact GDU (WH) or EPAC (SRH) to arrange for an USS and beta hCG to exclude a molar or ectopic pregnancy.

8.6.1 Side effects and risks of medical management of miscarriage (MMM)

The risks of medical management are:

- Infection 5:100
- Haemorrhage requiring transfusion

- Haemorrhage requiring emergency surgical evacuation,
- Nausea / vomiting,
- Rash,
- Headache,
- Risk of uterine rupture in multiparous women with previous caesarean sections
- Retained products of conception requiring surgical intervention

8.6.2 Contraindications to medical management

Absolute	Relative
Adrenal insufficiency	Hypertension
Long term glucocorticoid therapy	Severe asthma
Haemoglobinopathies or anticoagulant therapy	
Anaemia (haemoglobin < 100g/dl)	
Porphyria	
Mitral stenosis	
Glaucoma	
NSAID ingestion in previous 48hours	

8.7 Surgical management of miscarriage under local anaesthetic – Manual Vacuum Aspiration (MVA)

MVA is a way of emptying the uterus under local anaesthetic with ultrasound guidance for incomplete miscarriage or pregnancies of less than 10 weeks gestation.

Provide verbal and written information to all women and people undergoing MVA for the management of miscarriage about this treatment option and what to expect during and after the procedure. Request a full blood count (FBC) and group and save (G&S). Prescribe Misoprostol 400 micrograms PV for cervical preparation to be inserted on admission prior to the procedure. Consent for sensitive disposal of fetal remains (see Appendix 6).

Inclusion criteria for MVA

- Haemodynamically stable
- <10/40 gestation
- Parous women or people or nullips who have specifically chosen to have this procedure
- CRL <25mm
- RPOC <50mm
- No clinical signs of infection

Explain the surgical procedure and obtain informed written consent, this can be obtained by a career SHO, registrar or Nurse Specialist who is comfortable describing the procedure and the potential complications, benefits and risks associated with it

8.7.1 Risks of MVA

Although MVA has been proven to be very safe, like any treatment there are risks (RCOG 2018).

Uncommon surgical risks involve:

- Bleeding
- Incomplete uterine evacuation (4%)
- Infection (4%)
- Vasovagal episode

Very rare risks include:

- Severe bleeding
- Emergency admission
- Surgery under general anaesthesia
- Blood transfusion.

Anti-D immunoglobulin should be given to all non-sensitised Rh negative women undergoing MVA.

Ensure that products of conception are seen at evacuation, this is only sent for histology if a molar pregnancy is suspected.

8.8 Surgical management of miscarriage under general anaesthetic (SMM)

Where clinically appropriate, offer women surgical management of miscarriage in a theatre under general anaesthetic.

Provide verbal and written information to all women undergoing surgical management of miscarriage about this treatment option and what to expect during and after the procedure. Request a full blood count (FBC) and group and save (G&S). Prescribe Misoprostol 400 micrograms PV for cervical preparation to be inserted on admission prior to the procedure if the cervix has not been previously dilated. Consent for sensitive disposal of fetal remains (see Appendix 6).

Specific Indications:

- Increased risk of haemorrhage (late first trimester)
- Previous adverse and/or traumatic experience associated with pregnancy (e.g. Stillbirth, miscarriage or antepartum haemorrhage)
- Increased risk from the effects of haemorrhage (e.g. History of coagulopathies or is unable to have a blood transfusion)
- Evidence of infection.
- Molar pregnancy

Explain the surgical procedure and obtain informed written consent, this can be obtained by a career SHO, registrar or Nurse Specialist who is comfortable describing the procedure and the potential complications, benefits and risks associated with it

8.8.1 Risks of surgical management:

Anaesthetic complications are rare
Uncommon surgical risks involve:

- Infection (4%)
- Incomplete uterine evacuation (4%)
- Uterine perforation (1%)
- Haemorrhage (1%)

Very rare risks include:

- Hysterectomy (0.003%)
- Cervical tears
- Intrauterine adhesions,
- Intra-abdominal trauma (0.1%),

Arrange for measurement of haemoglobin concentration and determination of ABO and Rhesus blood groups. Anti-D immunoglobulin should be given to all non-sensitised Rh negative women undergoing surgical evacuation.

Ensure that products of conception are seen at evacuation, this is only sent for histology if a molar pregnancy is suspected.

9.0 Consent

Consent is a patient's agreement for a health professional to provide care. In the case of management of their miscarriage women may opt for one method of care and then change their minds and request something else.

It is important to listen and support patients at this difficult time. Guidance on consent can be found at http://nww.westernsussexhospitals.nhs.uk/assets/Consent-Policy-October-2015-P23.pdf In the case of an under 16 year old, further information can be found at:
https://www.nhs.uk/conditions/consent-to-treatment/children/

10.0 Anti-D rhesus prophylaxis

Offer anti-D rhesus prophylaxis at a dose of 1500 international units (I/U) to all rhesus negative women who have a surgical procedure to manage an ectopic pregnancy or a miscarriage.

Do not offer anti-D rhesus prophylaxis to women under 12 weeks who:

- Receive solely medical management for an ectopic pregnancy or miscarriage
- Have a threatened miscarriage
- Have a complete miscarriage
- Have a pregnancy of unknown location.

Do not use a Kleihauer test for quantifying feto–maternal haemorrhage. Further information is available within the Fetal D Group DNA Screening and Routine Anti-D Prophylaxis (RAADP) for Non-Sensitised RhD Negative Pregnant Women/People Guideline

For patient information, please signpost women to the Miscarriage Association
miscarriageassociation.org

Any patient's who have experienced recurrent miscarriage, please discuss with the lead consultants for early pregnancy on each site.

11.0 Audit

The process for audit and monitoring of this guideline are contained within the Maternity Audit Document.

The audit of this guideline will include:

- The type of miscarriage and outcomes
- Emergency admissions of patients known to EPAC services on a care pathway, including readmissions

References:

ASUM 2017: Australasian Society for Ultrasound in Medicine. Policies, Standards and Guidelines for the Performance of first Trimester Ultrasound. Adopted by Council December 2017. asum.com.au

Association of Early Pregnancy Units. Guidelines 2007 (Archived)

ISUOG Practice guidelines: performance of first trimester fetal ultrasound scan. Ultrasound Ostet Gynecol 2013: 41; 102-113 isuog.org

Kirk E, Bourne T. Predicting Outcomes in Pregnancies of Unknown Location. Women's Health. 2008; 4(5):491-499 pubmed.ncbi.nlm

Miscarriage Association miscarriageassociation.org

NICE guideline, NG126 published April 2019, Updated November 2021. Ectopic Pregnancy and miscarriage: diagnosis and initial management. nice.org.uk/guidance/ng126

RCOG, Surgical management of miscarriage and removal of persistent placental or fetal remains, Consent Advice No 10. January 2018

Sagili H, Mohamed K. Pregnancy of unknown location: an evidence-based approach to Management. The Obstetrician & Gynaecologist 2008; 10:224–230 obgyn.onlinelibrary

Appendix 1 - EPAC Referral Pathway for Worthing and St Richards' Hospitals

Referrals to the Early Pregnancy Assessment Clinic (EPAC)

The Early Pregnancy Assessment Clinic (EPAC) is for women and people between 6 and 18 weeks pregnant with problems in early pregnancy. Women and people between 6-12 weeks gestation must have a positive pregnancy test to be referred. If patients do not meet the criteria please discuss with the EPAC Nurse Specialist or Gynaecology Day Unit Sister (please see below).

Referrals can be made by a GP, Practice Nurse, Midwife and A&E. We are unable to accept self-referrals. All patients are contacted following triage with the **next available appointment** if appropriate (this may not be the next working day). Please do not suggest that the appointment/scan will be the next day as this is often not possible.

The EPAC staff will then contact the patients directly to discuss their referral and offer an appointment as appropriate. Please inform ladies that they may receive a call from 07.45 onwards from an unknown number and this will be to offer the **next available** appointment.

When referring please supply the ladies full name, contact details, DoB, Hospital number, GP, LMP and clinical reason.

We recommend that all ladies attend with a comfortably full bladder for a trans-abdominal scan, however they may be asked to empty their bladder for a transvaginal scan.

Please see attached referral forms for details on who to contact and when.

Referrals to EPAC St Richards' Hospital Chichester

Monday to Friday 8-5pm (EPAC working hours 08:00-13:00)

- An email referral can be sent to epac.srh@nhs.net
- EPAC staff will aim to contact patient within clinical opening hours.

Out of Hours Mon – Friday 5pm – 8 am and weekends – please email as above

- The on call SHO on Bleep 6100 will take the patients details and forward them to the EPAC Staff.

The EPAC nurse will contact the patient to discuss their referral as it may be that not all patients will require an appointment.

PLEASE DO NOT INFORM PATIENTS THAT THEY WILL RECEIVE A SCAN OR A SAME-DAY REVIEW

Date & Time				
Name				
DOB				
Hospital Number or NHS No.				
Contact Numbers				
LMP			***If gestation >15/40 please consider M/W to listen in***	
Positive Pregnancy Test?			**Resus Group**	
Reason for referral Please TICK relevant boxes	PV bleeding		Shoulder tip pain	
	Abdominal pain		Rectal pain	
	Change of bowel habits		Duration of symptoms	
Other reason for referral (Non mandatory)				
Significant Obstetric and Gynaecological History				
Referred by:				
Designation:				
Contact Tel:				
EPAC Nurse will triage referrals. Please be aware FH is not visible on scan until 6/40				
EPAC NURSE TRIAGE ONLY:			**Nurse sign & date:**	
			Nurse sign & date:	

Referrals to EPAC Worthing Hospital

Monday to Friday 8-8pm (EPAC working hours 08:00-14:00)

- An email referral can be sent to epac.wgh@nhs.net
- EPAC staff will aim to contact patient within clinical opening hours.

Out of Hours Mon – Friday 8pm – 8 am and weekends – please email as above

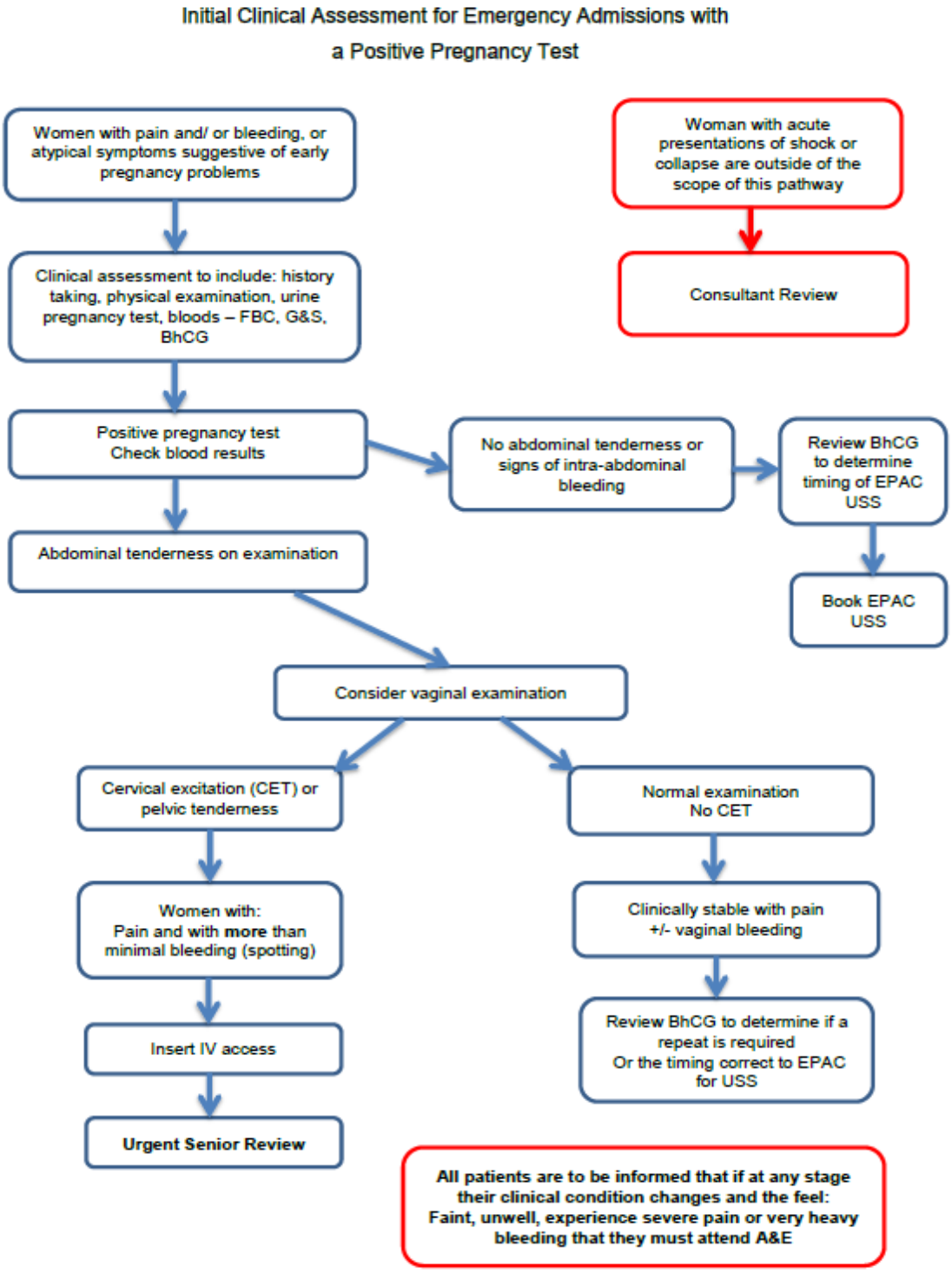
- An email referral can be sent to epac.wgh@nhs.net
- Telephone Bramber Ward on 01903 285144 this referral will then be passed onto EPAC on the next working day and patients will be contacted as above.

The EPAC nurse will contact the patient to discuss their referral as it may be that not all patients will require an appointment.

PLEASE DO NOT INFORM PATIENTS THAT THEY WILL RECEIVE A SCAN OR A SAME-DAY REVIEW

Date & Time				
Name				
DOB				
Hospital Number or NHS No.				
Contact Numbers				
LMP			***If gestation >15/40 please consider M/W to listen in***	
Positive Pregnancy Test?			**Resus Group**	
Reason for referral Please TICK relevant boxes	PV bleeding		Shoulder tip pain	
	Abdominal pain		Rectal pain	
	Change of bowel habits		Duration of symptoms	
Other reason for referral (Non mandatory)				
Significant Obstetric and Gynaecological History				
Referred by:				
Designation:				
Contact Tel:				
EPAC Nurse will triage referrals. Please be aware FH is not visible on scan until 6/40				
EPAC NURSE TRIAGE ONLY:			**Nurse sign & date:**	
			Nurse sign & date:	

Appendix 2 - Initial Clinical Assessment



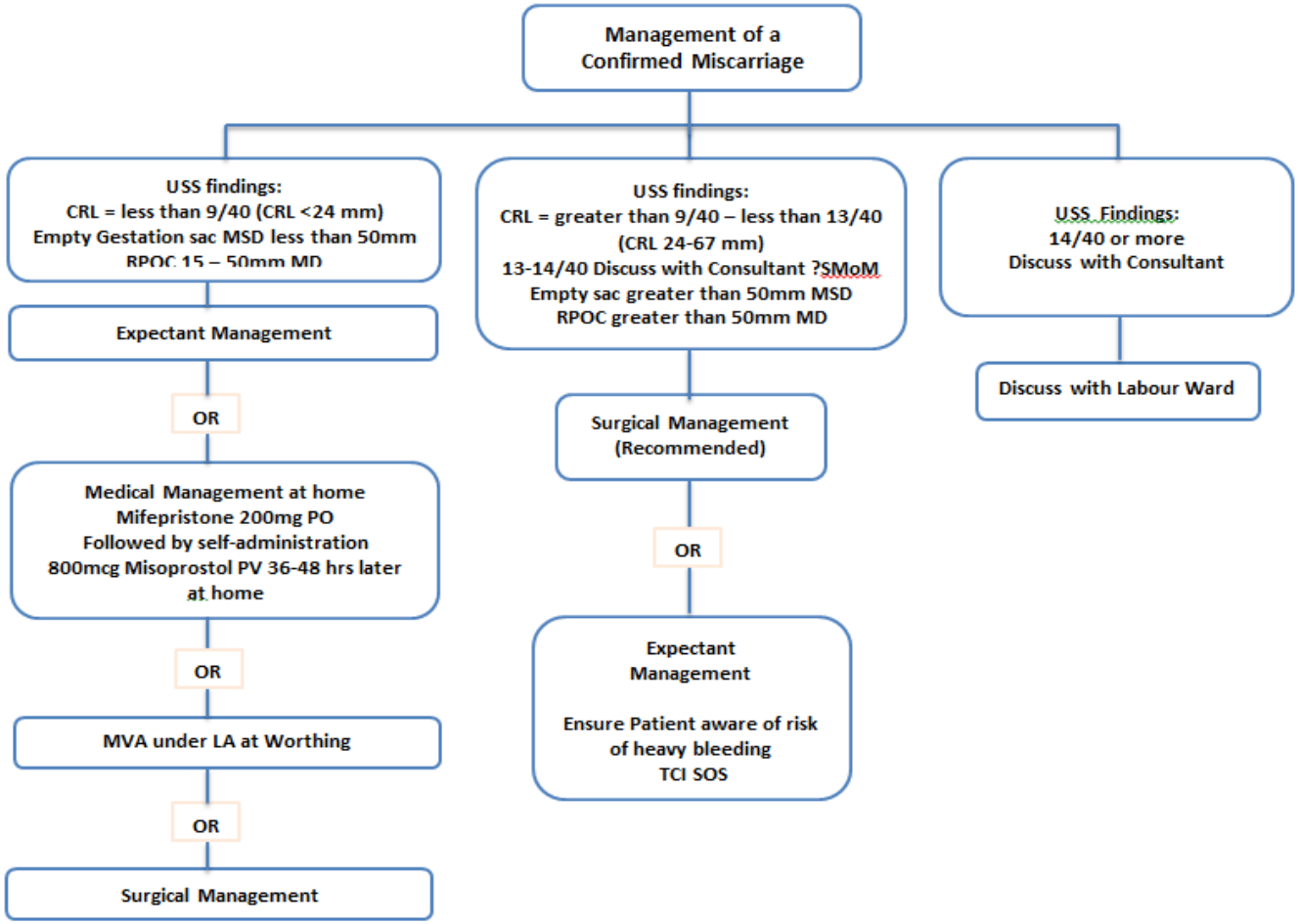
Appendix 3 - Gestational age by GSD

Please state approximate until CRL is visualised.

Taken from viewpoint charts:

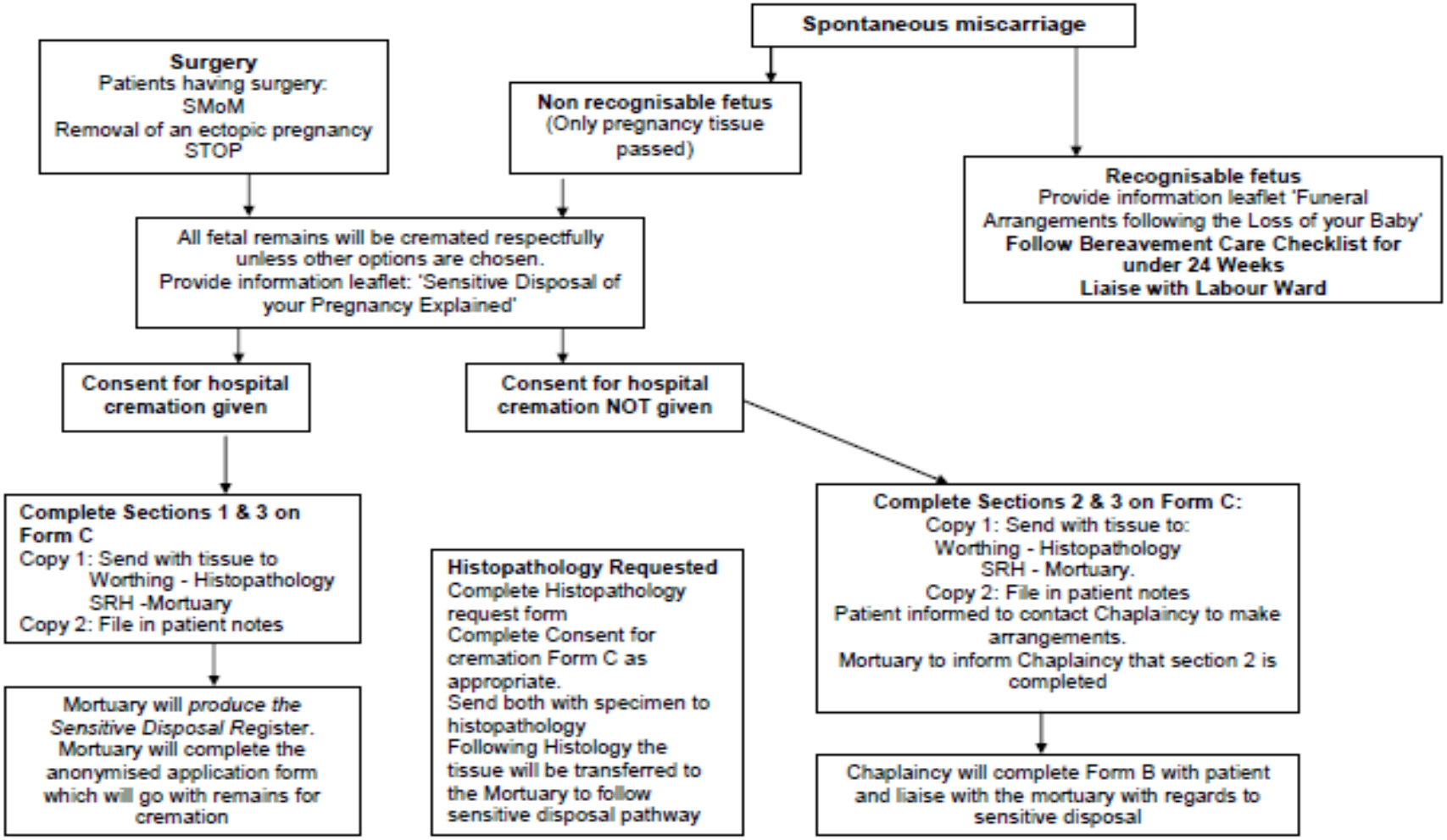
WEEKS	GSD (mm)
5.0	7 mm
5.4	10 mm
6.0	12 mm
6.4	15 mm
7.0	18 mm
7.4	21 mm
8.0	25 mm
8.4	28 mm
9.0	32 mm

Appendix 4 - Flowchart Management of a confirmed miscarriage



October 2022

Appendix 5 - Sensitive disposal of fetal remains



Appendix 6 - Consent for the sensitive disposal of non-recognisable fetal remains

ADDRESSOGRAPH LABEL

Appendix 3

NHS
University Hospitals Sussex
NHS Foundation Trust
St Richards, Worthing & Southlands Hospitals

Specimen Number:_____

Consent for Sensitive Disposal of Fetal Remains

Section 1:

I hereby CONSENT to the cremation of my pregnancy tissue. I understand that there will be a number of pregnancy losses cremated in one service. This will take place in a dignified manner with a member of the chaplaincy present, conducting a spiritual service. I am aware that there will be no ashes available. Cremation will not take place for 7 days from consent to allow for a change in this decision (see information leaflet).

In rare circumstances where histology is requested I understand that small samples of the tissue from my pregnancy may be made into blocks and slides for examination under a microscope. These will be kept as part of my medical record. If there is any remaining tissue this will be respectfully cremated.

In the event of cytogenetic testing, this tissue will be disposed of in accordance with the receiving hospitals sensitive disposal policy which comprises of a recorded witnessed sensitive incineration.

Signed _____ Date _____ Hospital Number_____

Print Name _____

Section 2: Alternative arrangements
I wish to make my own arrangements for a private burial or cremation and realise this may incur charges for which I am responsible. I will contact the Hospital Chaplaincy to discuss these arrangements. If I have not contacted the Chaplaincy within 30 days I understand my pregnancy tissue will be cremated as above.

Signed _____ Print Name _____ Date _____

Section 3: Application to Worthing Crematorium for Cremation of tissue remains.

TO BE SIGNED BY AUTHORISED PRACTITIONER

I, the Authorised Practitioner signing below, DECLARE that tissue remains have been obtained from the above hospital numbered patient AND all the information given in this application is correct AND consent from the patient to the cremation has been obtained AND a record of that consent is retained in the Patient's Medical Record.

I have no reason to suspect that the duration of the pregnancy was shortened by violence, poison or any other unlawful act.

The following leaflet has been provided:
Sensitive disposal of your pregnancy explained. ☐

Signed _____ Date _____

Print Name _____ Ward_____

For completion and action by staff:
Copy 1: WH- attach securely to the container and send to Histology
SRH-attach securely to container and send to mortuary
Copy 2: Place in Patient notes

Form C