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Key Amendments

Date	Amendment	Approved by
14th December 2020	Documents extended for 3 years	Alex Blackwell
29th December 2023	Document extended for another 6 months whilst under review.	Alex Blackwell
20th August 2024	Document extended for another 6 months whilst under review.	Alex Blackwell

Management of bleeding in early pregnancy and early pregnancy loss

Introduction

Miscarriage accounts for a large number of inpatient admissions in the United Kingdom annually. It is common, occurring in 15-20% of all pregnancies, and can have both physical and psychological consequences. The aim of this guideline is to provide easily accessible information and safe service for diagnosis and management of bleeding in early pregnancy. Women should be treated with respect and dignity at all times and should be involved in decision making. Information should be provided in a sensitive, supportive and individualised manner and written information about treatment options and a 24 hour contact number should be given.

Set up of early pregnancy unit

An early pregnancy assessment service according to NICE should:

- Be a dedicated 7 day service provided by healthcare professionals competent to diagnose and care for women with pain and/or bleeding in early pregnancy
- Offer ultrasound and assessment of serum human chorionic gonadotropin (HCG) levels
- Be staffed by healthcare professionals with training in sensitive communication and breaking bad news.

Early pregnancy assessment services should aim to accept self-referrals from women who have had recurrent miscarriage or a previous ectopic or molar pregnancy.

All other women with pain and/or bleeding should be assessed by a healthcare professional (such as a GP, accident and emergency [A&E] doctor, midwife or nurse) before referral to an early pregnancy assessment service.

In an emergency and out of hours if the clinical symptoms warrant further assessment, women should be referred to A&E and the on call Gynaecology team.

Using ultrasound for diagnosis

For women who attend an early pregnancy assessment service (or out-of-hours gynaecology service if the early pregnancy assessment service is not available) a transvaginal ultrasound scan should be offered to identify the location and viability of pregnancy. Consider a trans- abdominal ultrasound scan for women with an enlarged uterus or other pelvic pathology, such as fibroids or an ovarian cyst.

If a transvaginal ultrasound scan is unacceptable to the woman, offer a trans abdominal ultrasound scan and explain the limitations of this method of scanning.

Inform women that the diagnosis of miscarriage using 1 ultrasound scan cannot be guaranteed to be 100% accurate and there is a small chance that the diagnosis may be incorrect, particularly at very early gestational ages.

When performing an ultrasound scan to determine the viability of an intrauterine pregnancy, first look to identify a fetal heartbeat. If there is no visible heartbeat but there is a visible fetal pole, measure the crown–rump length. Care should be taken when measuring the CRL not to include the yolk sac.

If the crown–rump length is less than 7.0 mm with a transvaginal ultrasound scan and there is no visible heartbeat, perform a second scan a minimum of 7 days after the first before making a diagnosis. Further scans may be needed before a diagnosis can be made.

Diagnosis of Miscarriage

Miscarriage is diagnosed if:

Transvaginal Scan:

- **The crown–rump length is 7.0 mm or more with a trans-vaginal ultrasound scan and there is no visible heartbeat confirm diagnosis by second opinion and/or rescan in 7 days**
- **If the mean gestational sac diameter is more than 25.0 mm and there is no visible fetal pole, seek second opinion and/or perform a second scan a minimum of 7 days after the first before making a diagnosis.**
- **If the CRL<7 mm and MSD is <25 mm repeat scan should be arranged in 7 to 14 days to confirm viability.**
- **Trans vaginal scan should be offered to all women who are less than 9 weeks**

Trans-abdominal Scan:

- If there is no visible fetal pole and the mean gestational sac diameter is measured using a transabdominal ultrasound scan, record the size of the mean gestational sac diameter **and** perform a second scan a minimum of **14 days** after the first before making a diagnosis.

A transvaginal scan should be performed in cases up to a gestation of 9 weeks and 2 days. (CRL = 25mm) After this gestation adequate views should be obtainable by abdominal ultrasound. The uterus should be examined all along in longitudinal and transverse section from

cervix to the uterine fundus as in early pregnancy as one or more embryos can be missed especially in monochorionic twin pregnancy.

When there is any doubt about the diagnosis and /or woman requests a repeat scan, this should be performed at an interval of at least one week from the initial scan before medical or surgical measures are undertaken for uterine evacuation. No growth in gestational sac size or CRL is suggestive of a non-viable pregnancy in the absence of embryonic structures.

No single ultrasound measurement of the different anatomical features in the first trimester has been shown to have a high predictive value for determining early pregnancy outcome. In addition Doppler studies and 3D ultrasound have failed to predict those pregnancies that will subsequently end in miscarriage.

The diagnosis of a non-viable pregnancy must be discussed with the patient and her partner in a sympathetic and sensitive way. Written advice should be given to support the finding and to assist in the decision regarding a management plan e.g. Miscarriage Association.

Threatened Miscarriage

A viable pregnancy identified on ultra-sound scan is good news although the patient may have experienced mild to moderate bleeding. Findings of the scan should be carefully explained to her and risk of any further bleeding identified. 90% of women in whom fetal heart activity is detected at 8 weeks will not miscarry. Advise a woman with vaginal bleeding and a confirmed intrauterine pregnancy with a fetal heartbeat that:

- If her bleeding gets worse, or persists beyond 14 days, she should return for further assessment
- If the bleeding stops, she should start or continue routine antenatal care.

If prolonged or recurrent bleeding or vaginal discharge is experienced, a speculum examination should be done to exclude a lower genital tract lesion and to obtain appropriate vaginal swabs (see guideline on Pelvic Inflammatory Disease WAHT-GYN-008).

If viable pregnancy (10+ weeks gestation) confirmed in EPAU / EGAU contact via telephone Antenatal Clinic to ensure that on-going management of pregnancy plan is in place. This will include options for Antenatal screening which will be discussed by maternity health care professionals. (Screening is gestation specific and therefore required timely referral) see WAHT-TP-094

Management of Confirmed Miscarriage

Expectant management of confirmed miscarriage

Expectant management for 7–14 days can be offered as an option for women with confirmed diagnosis of miscarriage and is recommended as first line of treatment by NICE. Expectant management may not be suitable in women with:

- Coagulopathies,

- Previous traumatic experience associated with pregnancy
- Active infection
- Patient is unable to have blood transfusion.
- Late first trimester > 10 weeks CRL
- Significant medical disorders

It should be made clear when offering expectant management that complete symptom resolution can take several weeks.

Patients should be counselled regarding the higher risk of bleeding, blood transfusion and unplanned surgery if opting for expectant management.

Pelvic infection occurrs in 0-10% women and is no more likely to happen compared to surgical evacuation. The likelihood of unplanned admission and bleeding is higher in expectant management compared to surgical or medical management of miscarriage.

Explain to women that they will experience moderate to heavy vaginal bleeding associated with pain. Provide pain relief and a 24h contact number for early pregnancy assessment unit or emergency gynaecology assessment unit.

Women should be advised to do a pregnancy test in 3 weeks if symptoms indicate resolution of miscarriage with an advice to ring if pregnancy test still positive. Patients should be followed up if miscarriage has not ensued in 2 weeks to discuss alternative management.

Offer a repeat scan if after a period of expectant management the bleeding and pain have not started or are persisting and/or increasing (suggesting incomplete miscarriage).

If the miscarriage does not resolve with initial expectant management 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 who opts for continued expectant management of miscarriage at a minimum of 14 days after the first follow-up appointment.

Medical management of confirmed miscarriage

Medical management can be offered to patients on an outpatient basis by administering a single vaginal/ sublingual dose of misoprostol. Patients would be followed up and offered repeat medical management or surgical intervention if they fail to respond to the initial treatment.

If patients are attending for the 3rd time with retained pregnancy tissue, surgical treatment may be the best definitive management.

Please also refer to the Guideline on Medical Management of First Trimester Miscarriage as outpatient and inpatient long regime. Patients who are >9 weeks should be offered inpatient medical management using the long regime of misoprostol.

Surgical management of confirmed miscarriage

Indications

Surgical evacuation of retained products of conception (ERPC) remains the treatment of choice when bleeding is excessive, vital signs are unstable or infective tissue is present in the uterine cavity (in which case surgery must be done under antibiotic cover.) Fewer than 10% of women who miscarry fall into these categories.

Although all patients should be managed according to individual clinical features, ERPC is unlikely to be necessary if uterine contents on ultrasound scan are <30mm.

When ultrasound assessment of the uterine cavity shows heterogenous shadows with a maximum AP diameter of 15 mm or less, genuine pregnancy tissue is less likely to be confirmed histologically. These could, of course, include some cases of 'incomplete miscarriage' but are best managed conservatively as there is a trend towards a lower complication rate compared with surgical management (3.0 versus 5.8%, *P* = 0.06).

Several randomised trials have compared expectant with medical or surgical management. Some women will still prefer to undergo surgical evacuation and their choice should be acknowledged. Rare surgical risks are uterine perforation (1%), cervical tears, intra-abdominal trauma (0.1%), intrauterine adhesions and anaesthetic complications. More frequent complications to be discussed and documented include haemorrhage, infection and retained pregnancy tissue.

Procedure

Patients should be offered the choice of Manual Vacuum Aspiration (MVA) under local anaesthetic (see MVA guideline), where clinically appropriate, or surgical management of miscarriage under general anaesthetic.

In all women in whom surgery is being considered the need for cervical priming with 400µg misoprostol PV/sublingual should be assessed. This is appropriate to facilitate surgery in nulliparous patients and should be given 1-2 hours before their operation.

The on call consultant for gynaecology must be notified if the procedure is higher risk. This should include all evacuations done after a previous recent surgical treatment, all postpartum cases and if there is any suspicion of molar pregnancy.

All women who opt for surgical evacuation should have the necessary work up to include: counselling, FBC and G&S, consent and notification of theatres, anaesthetics and surgeon responsible for gynaecology list.

Booking patients for surgical management of miscarriage in theatre

Patients can be booked into vacant designated slots on elective gynae theatre lists at Kidderminster Treatment Centre and the Alexandra Hospital or as an emergency case on the CEPOD theatre list at Worcester Royal Hospital.

Patients at higher risk of bleeding or other complications should be booked onto the CEPOD list at Worcester Royal Hospital.

Patients with any of the following are not suitable for booking at Kidderminster of Redditch:

- Known bleeding disorder

- Uterine abnormality
- BMI >40 (unsuitable for Kidderminster)
- Significant medical disorders
- Molar pregnancy

Sensitive disposal of pregnancy tissue and fetal remains

Tissue obtained at the time of a miscarriage should be submitted for histological examination to exclude trophoblastic disease and ectopic pregnancy. Patients are required to sign a specific consent form for fetal tissue examination to allow histological examination and sensitive disposal of fetal remains. This form is available on ICE and should be copied with one copy remaining in the patient notes and a second copy accompanying the fetal tissue specimen to the laboratory. The form includes documentation of the patient's consent for disposal of the fetal tissue and their preference for the delivery of any religious procedures.

Anti D

Please refer to Anti-D guideline (WAHT-GYN-004)

- Offer anti-D rhesus prophylaxis at a dose of 250 IU (50 micrograms) 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 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

Discharge

On the patient being discharged from hospital it is the nurse's responsibility to ensure that: -

- Any planned USS and antenatal appointments are cancelled.
- Miscarriage check list (Appendix 2) and Miscarriage notification form (Appendix 3) is completed.
- The patient's G.P and midwife are notified by telephone.
- The Junior doctor (SHO) completes a comprehensive discharge summary for the G.P.
- The patient has had the opportunity to discuss any concerns and is aware of expected recovery and advice for future pregnancy
- The patient has been given written information about miscarriage treatment with details of outside support agencies to contact for further counselling if required
- The patient has been given the 24h contact number for the Emergency Gynaecology Assessment Unit

- Follow-up in the gynaecology clinic has been requested if history of recurrent miscarriage or mid trimester loss

References

NICE Ectopic pregnancy and miscarriage: diagnosis and initial management
NICE guideline [NG126] Published date: 17 April 2019
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Cochrane Review: Expectant care versus surgical treatment for miscarriage
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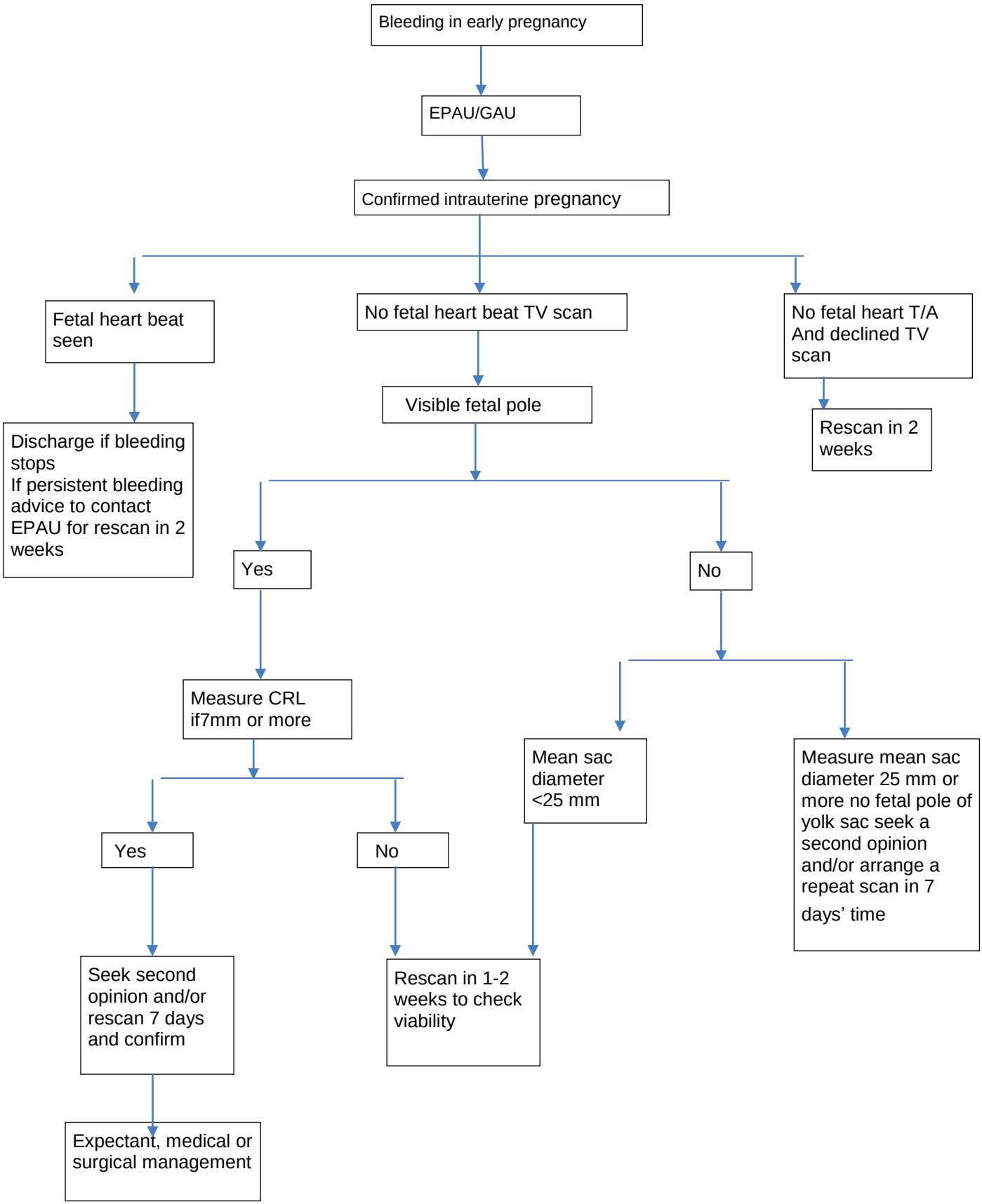

This information should be used in conjunction with the Gynaecology Assessment unit – Pregnancy WAHT-TP-027. Use the version on the internet to ensure the most up to date information is being used.