



GIG
CYMRU
NHS
WALES

Bwrdd Iechyd Prifysgol
Bae Abertawe
Swansea Bay University
Health Board

Management of Miscarriage Protocol

Authors F Hodge & A Gronow

Ratified in Gynae Forum February 2021

Review Date February 2024

MANAGEMENT OF MISCARRIAGE PROTOCOL

Definition of Miscarriage

When a pregnancy ends spontaneously before the end of the 23rd week.

15-20% of clinically confirmed pregnancies will end spontaneously by the end of the 13th week

NICE Quality Statements

1. Women are seen within 24 hours of referral
2. Women referred with suspected miscarriage are offered a transvaginal ultrasound to confirm viability
3. Women with miscarriage who have an initial transvaginal ultrasound are offered a second assessment to confirm the diagnosis

Referral

- Usually referred by GP/A&E/midwives
- Pain and/or bleeding in early pregnancy
- Women who have a history of recurrent miscarriage (3 or more) or a previous ectopic or molar pregnancy can self-refer early on to an early pregnancy assessment unit.

Support and information giving

During the consultation women should be informed of the following

- When and how to seek advice if symptoms worsen or new symptoms develop – 24 hour telephone number
- What to expect during care/recovery periods
- Likely impact on future fertility
- Where to access counselling/further support ie miscarriage association website

Clinical Assessment

	History	Speculum Examination	Bimanual Examination	Ultrasound scan	Management
Complete Miscarriage	Good history of passing products. Bleeding settled following this.	Minimal bleeding, os closed. Take HVS, endocervical and chlamydia swabs	Well contracted uterus. No adnexal masses.	Only if unclear history/examination findings do not fit.	Reassure. Discharge. Info leaflets and miscarriage association contact details. For urine BHCG (3 weeks) if this pregnancy was never visualised on USS
Incomplete miscarriage	History of some products passed. Bleeding ongoing.	Ongoing bleeding, may be heavy. Os often open. Remove visible products. Swabs as above.	Uterus may feel soft/enlarged/tender . No adnexal masses.	Yes to assess size of retained products.	If >15mm retained products discuss options – including expectant management. <15mm reassure/urine BHCG as above (can be done by EPU nurse up to 15mm, above this requires Dr review)
Silent miscarriage	Non-viable pregnancy on USS. Asymptomatic	Os closed, minimal/no bleeding. Swabs as above	Uterus soft and size appropriate/ smaller than gestation. No pain/tenderness	Diagnosed on USS.	Expectant management advised unless contraindicated. Written information/advice/contact details.

Diagnosis of Miscarriage

Ideally a TV scan should be performed to confirm the location and viability of the pregnancy. If the women declines this a TA scan may be offered.

A definite diagnosis may not be possible with just 1 scan, particularly at very early gestational ages.

Serum HCG Measurements

- Should not be used to determine location of pregnancy alone
- Can be used to determine suitability for USS (HCG>1500iu/ml) in early pregnancy (<6/40)
- If fall of greater than 50% in 48 hours, advise patient pregnancy is unlikely to continue and ask them to repeat a urine HCG in 2 weeks and contact EPU if it is still positive.

Threatened miscarriage

If a viable intrauterine pregnancy is noted in the presence of bleeding advise the woman that if her bleeding continues for 14 days she should contact her midwife or GP.

If her bleeding settles she should continue with her routine ANC as planned.

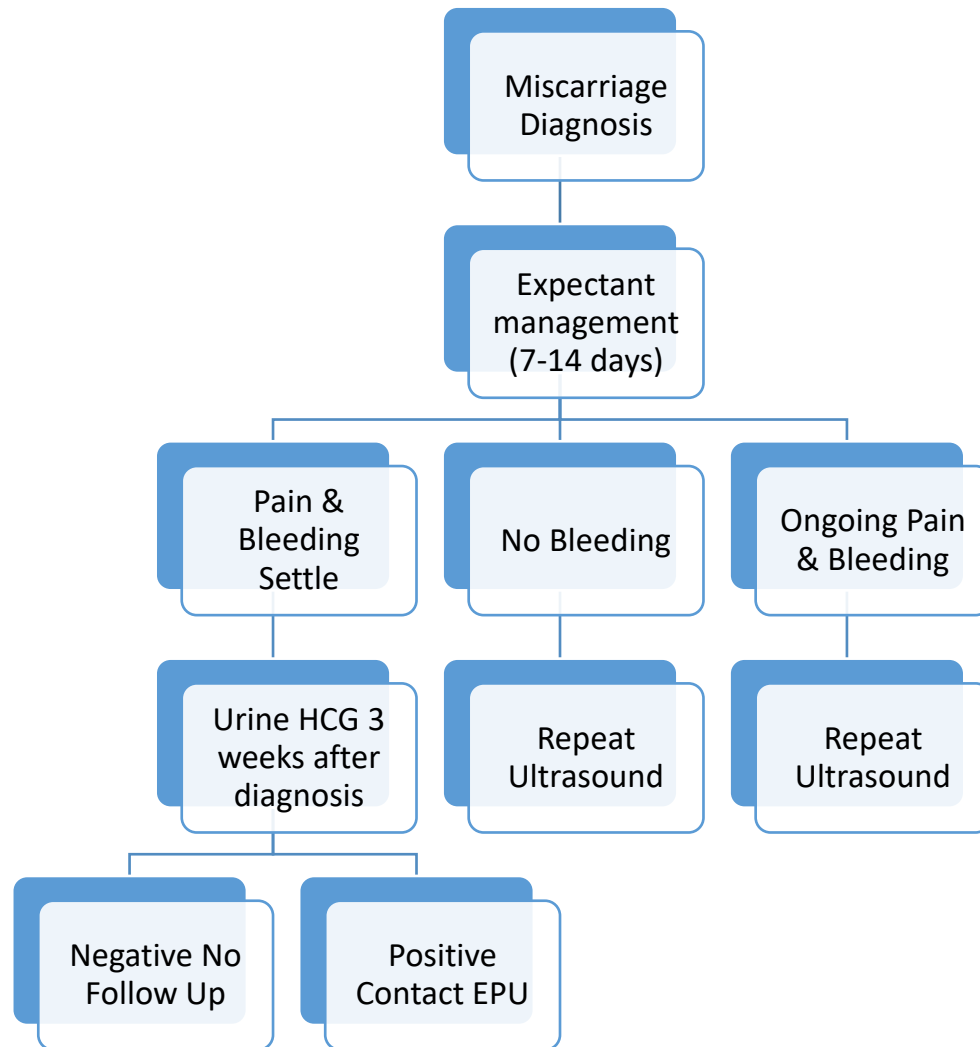
MANAGEMENT OF MISCARRIAGE**Expectant management**

Use expectant management as first line management for the first 7-14 days following a confirmed diagnosis of a miscarriage.

Unless

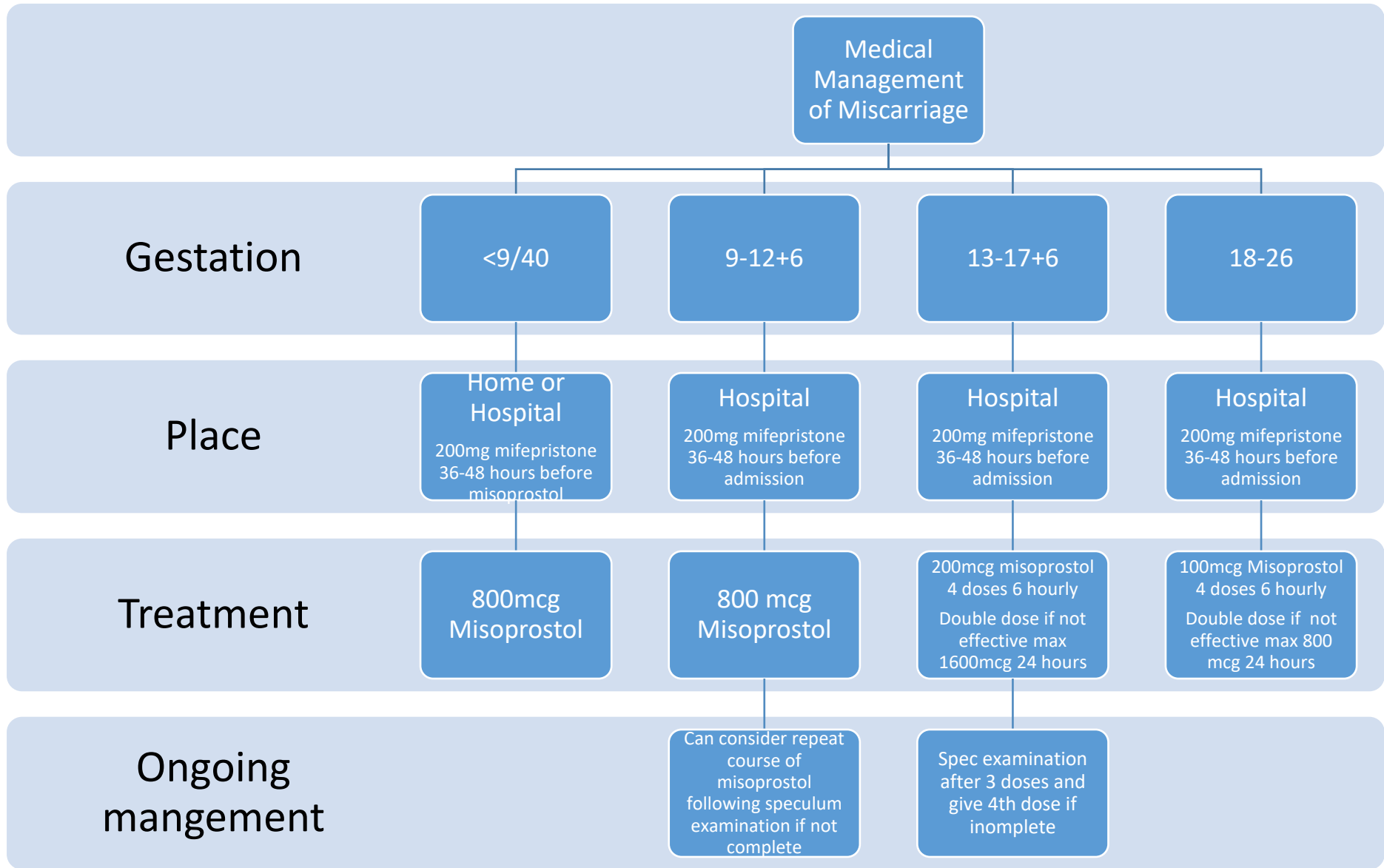
- She has an increased risk of haemorrhage ie. late first trimester
- She has previous adverse outcome/traumatic experience of pregnancy ie. stillbirth, antepartum haemorrhage
- She is at increased risk from the effect of haemorrhage ie. has coagulopathy or would decline blood transfusion
- There is evidence of infection

If expectant management is not acceptable to a woman – offer medical management.



If incomplete on rescan discuss all 3 treatment options allowing the woman to make an informed choice.

Review women undergoing expectant management of miscarriage a minimum of 14 days after the first appointment.



Offer vaginal misoprostol **not** mifepristone for the medical treatment of missed or incomplete miscarriage. Oral administration is an acceptable alternative if this is the woman's preference.

Use a single dose of 200mg mifepristone orally followed 48 hours later by a single dose of 800 micrograms of misoprostol for both missed and incomplete miscarriage at <9/40 (Chu *et al* 2020)

If no contraindications this can be done at home.

Patient should phone EPU if bleeding hasn't commenced within 48 hours of misoprostol.

If patient >9/40 (on scan NOT by dates) will need admission although the treatment is as above for those below 13 weeks gestation.

13-17⁺⁶ weeks gestation

- **Above 13 weeks gestation can use mifepristone 200mg 36-48 hours before misoprostol**
- 200 micrograms misoprostol 6 hourly for 4 doses until products passed.
- Speculum examination should be performed if no products passed after 3 doses
- If first dose is not effective, dose should be doubled to 400 micrograms
- Maximum dose 1600 micrograms in 24 hours

18-26 weeks gestation

- **Can use mifepristone 200mg 36-48 hours before misoprostol**
- 100 micrograms misoprostol 6 hourly for 4 doses until products passed
- If 1st dose not effective double to 200 micrograms
- Maximum dose in 24 hours 800 micrograms

All women should be prescribed anti-emetics and analgesia

Inform women of the potential side effects of treatment including pain, diarrhoea and vomiting.

Advise women to take a urine pregnancy test 3 weeks after medical management of miscarriage unless they experience worsening symptoms, in which case advise they should contact us sooner for advice/review.

Advise women with a positive urine pregnancy test after 3 weeks to return for a review to ensure that there is no molar or ectopic pregnancy

Medical management has overall lower morbidity than surgical management (1.7% Vs 6.6%) and has an overall success rate of around 90% (greatest in <10 weeks or sac diameter <24mm 92-94%) (De jonge 1995) Up to 99% success in incomplete miscarriage (Saraswat 2014)

Surgical management

Where clinically appropriate, offer women undergoing a miscarriage a choice of:

- manual vacuum aspiration under local anaesthetic in an outpatient or clinic setting **or**
- surgical management in a theatre under general anaesthetic.

MVA is not currently routinely available in Singleton hospital. This may be possible to arrange in exceptional cases or in women with a strong preference for this method.

Provide oral and written information to all women undergoing surgical management of miscarriage about the treatment options available and what to expect during and after the procedure.

Cervical ripening prior to surgical management - either 200mg mifepristone 12-24 hours before the procedure OR 400mcg misoprostol PV 3 hours before or sublingually 2 hours before

Anti-D Prophylaxis

Below 12 weeks gestation offer 250iu anti-D if ectopic pregnancy, molar pregnancy, surgical management of miscarriage/termination and if repeated or heavy vaginal bleeding with significant associated abdominal pain. A test for fetomaternal haemorrhage is not required

Between 12 and 20 weeks gestation a minimum dose of 250iu anti-D should be administered within 72 hours of a sensitising event. A test for fetomaternal haemorrhage is not required.

Above 20 weeks gestation 500iu anti-D should be administered within 72 hours of the sensitising event.

APPENDIX 1

ULTRASOUND CRITERIA FOR MISCARRIAGE DIAGNOSIS

If there is no visible heartbeat, measure crown-rump length.

Only measure mean gestational sac diameter if the fetal pole is not present.

TV USS

Repeat scan in 7 days if

- CRL is <7.0mm with TV US and there is no visible heartbeat.
- If the mean gestational sac diameter is <25.0 mm with a TV US and there is no visible fetal pole.

Patients should be informed that further scans may be necessary to confirm their diagnosis.

NICE would also advise either repeat scan in 7 days or to seek a second opinion on the viability of the pregnancy if

- If the CRL is 7.0mm or more with TV US and there is no visible heartbeat
- If the mean gestational sac diameter is 25.0mm or more using a TV US and there is no visible fetal pole

However as long as the person performing the scan is suitably qualified to do so a diagnosis of miscarriage can be made on these findings. A repeat scan should always be offered in this situation at the patients' request.

TA USS

Repeat scan in 14 days if

- There is no visible heartbeat when the CRL is measured on TA US
 - Record the size of the CRL
- If there is no visible fetal pole and the mean gestational sac diameter is measured using TA US
 - Record the size of the GS

Inform women that waiting for a repeat scan will not affect the outcome of the pregnancy.

Give them a 24 hour contact telephone number for advice.

When diagnosing a complete miscarriage on ultrasound scan, in the absence of an earlier scan confirming intrauterine pregnancy be aware of the possibility of an ectopic pregnancy. Therefore she should have follow up planned either in the form of repeat beta HCG to ensure the levels are falling or a urine beta HCG and to contact the unit if this remains positive. She should also be informed of symptoms to look out for and to contact the unit if she has any concerns.

REFERENCES

Chu J, Devall A, Beeson L, Hardy P, Cheed V, Sun Y, Roberts T, Ogwulu C, Williams E, Jones L, Papadopoulos J, Bender-Atik R, Brewin J, Hinshaw K, Choudary M, Ahmed A, Naftalin J, Nunes N, Oliver A, Izzat F, Bhatia K, Hassan I, Jevic Y, Hamilton J, Deb S, Bottomley C, Ross J, Watkins L, Underwood M, Cheong Y, Kumar C, Gupta P, Small R, Pringle S, Hodge F, Shahid A, Gallos I, Horne A, Quenby S & Coomarasamy A (2020) Mifepristone and misoprostol versus misoprostol alone for the management of missed miscarriage (MifeMiso): a randomised double blind, placebo controlled trial. *Lancet* 396 770-778

De Jonge EJM (1995) Randomised Controlled trial of medical evacuation or surgical curettage for incomplete miscarriage. *BMJ* 311 662

NICE Guideline (CG154) Ectopic Pregnancy & Miscarriage: Diagnosis & Initial Management

Qureshi, H., Massey, E., Kirwan, D., Davies, T., Robson, S., White, J., Jones, J. and Allard, S. (2014) BCSH guideline for the use of anti-D immunoglobulin for the prevention of haemolytic disease of the fetus and newborn. *Transfusion Med*, 24: 8–20. doi:10.1111/tme.12091

Saraaswat L, Ashok PW & Mathur M (2014) Medical management of Miscarriage. *TOG* 16 79-85

Tinder J, Brocklehurst P, Porter R, Read M, Vyas S, Smith L (2006) Management of miscarriage: Expectant, Medical or Surgical? Results of Randomised Controlled Trial (miscarriage treatment trial). *BMJ* 1223-1224

