Clinical Practice Guideline Pain And Bleeding In Pregnancy

Peninsula Care Goal Effective

Target Audience
Registered Nurses/Midwives
Student Midwife/Nurse under supervision where appropriate and patient permits
Medical staff in Women's Health Unit
Medical staff in ED and Rapid Assessment Discharge (RAD) team members.

Purpose
This CPG aims to clarify the initial and further care given to women who are experiencing per-vaginal (PV) bleeding, abdominal pain or other symptoms in pregnancy:

a. **Prior and up to 15+6 weeks gestation who attend the Emergency Department.**
b. **After 16+0 weeks' gestation onwards, who attend the Emergency Department.**

The purpose is:
- To guide the initial assessment, investigation, and management of the woman in a timely manner.
- To guide the referral process to Women's Health Unit for follow up in women with gestation ≥ 16 weeks
- To guide the referral process to EPPAS for follow up in women with gestation ≤ 15+6 weeks.
- To provide supportive and consistent counselling to women with pain and bleeding in early pregnancy.
- To address the physical and psychosocial needs of the woman and her family.

Guideline
Definitions used in this Guideline

- **Early pregnancy:** pregnancy up to 15+6 weeks of pregnancy *for the purpose of this guideline*. Some guidelines usually define early pregnancy as up to 12+0 weeks gestation.

- **Last menstrual period (LMP):** the first day of the last menstrual period

- **Gravida:** total number of confirmed pregnancies regardless of fetal outcome.

- **Parity:** the number of births a woman had after 20 weeks gestation regardless of fetal outcome.

- **Expectant management:** a management approach in which treatment (pharmacological or surgical) is not administered, with the aim of seeing whether the condition will resolve naturally.
- **Recurrent miscarriage:** Three or more consecutive miscarriages.

- **Threatened miscarriage:** Early viable intra-uterine pregnancy on ultrasound with clinical evidence of mild to moderate vaginal bleeding and closed cervical os. Abdominal pain may be present or not.

- **Incomplete miscarriage:** Sonographic presence of retained pregnancy tissue in utero measuring ≥ 20mm with clinical evidence of a bulky uterus, vaginal bleeding

and open cervix. Abdominal pain may be present or not. Sometimes products of conception may be seen in the cervix.

- **Missed miscarriage:** refers to a woman who has an ultrasound-defined non-viable pregnancy without pain or bleeding i.e. failure to identify an embryo in a gestational sac with MSD of ≥25mm and or failure to identify cardiac activity in an embryo with CRL ≥7mm

- **Inevitable miscarriage:** applies to a woman who is pregnant and bleeding, with an open cervix. Sometimes products of conception can be visualized at the cervix.

- **Spontaneous miscarriage:** is defined a spontaneous and complete pregnancy loss prior to 20+0 weeks gestation.

- **Early pregnancy and Perinatal Assessment Service (EPPAS):** Outpatient service staffed by midwives, HMOs, GP Obstetricians with direct access to a consultant gynaecologist daily within normal working hours on Mondays to Fridays 0900 to 1630 hours. It is located in Outpatient Building 1. It is for women with non-acute concerns about early pregnancy pain and bleeding who are haemo-dynamically stable.

- **Heavy vaginal bleeding:** > 2 soaked pads per hour.

- **Cervical shock:** a woman has vaginal bleeding and is hypotensive. Products of conception in the cervix can cause cervical dilation, vagal stimulation and vasovagal syncope. Typically, there is hypotension out of proportion to observed blood loss. Removal of the POC from the cervix allows recovery of the woman.

- **Pregnancy of unknown location (PUL):** a woman who has a positive β-hCG result but an ultrasound that cannot locate the site of pregnancy or identify RPOC. Ectopic pregnancy is not excluded. It may be an early pregnancy <6 weeks gestation, early failing pregnancy or complete spontaneous miscarriage.

- **Ectopic pregnancy:** a pregnancy located outside of the uterine cavity.

- **Heterotopic pregnancy:** two pregnancies where one sac is located within the uterine cavity and the other outside the uterine cavity
- **Products of conception (POC):** pregnancy related (fetal or placental) tissue including fetus, gestational sac, placenta, and decidua. This term is commonly used amongst health professionals, but women may prefer the term ‘pregnancy tissue’.

- **Ovarian hyper stimulation syndrome (OHSS):** This can occur when ovulation stimulation medications are used in infertility management. Women can present with abdominal pain due to fluid accumulation in the abdomen and ovarian complications. These women are at risk of fluid overload (e.g. pulmonary edema), electrolyte disturbances, VTE and ovarian complications.

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Background

Abdominal pain and bleeding are common in early pregnancy. Approximately 20% of pregnancies miscarry, and early pregnancy complications in the first trimester of pregnancy such as miscarriage and ectopic pregnancy can cause considerable distress.

Treatment and care should take into account women's needs and preferences. Women should have the opportunity to make informed decisions about their care and treatment, in partnership with their healthcare professional.

The major concern is the possibility of ectopic pregnancy, which can be life-threatening with an incidence of 1 in 200 – 500 pregnancies. It must be actively excluded in all women presenting with undifferentiated abdominal pain and/or per-vaginal bleeding with a positive pregnancy test.

Ectopic pregnancy should also be considered after a recent miscarriage or termination of pregnancy where no prior intrauterine gestational sac was identified on ultrasound, as heterotopic pregnancies can occur.

Pain and bleeding remain common emergency presentations later in pregnancy but may then relate to other obstetric complications including preterm birth, ruptured membranes, placenta praevia or placental abruption.

Common causes of abdominal pain may include:

- Ectopic pregnancy
- Miscarriage
- Ovarian pathology (e.g. cyst rupture, ovarian torsion, bleeding into a corpus luteum cyst)
- Genital tract infection
- Ovarian Hyper stimulation Syndrome OHSS.
- Non-gynaecological causes such as urinary tract infection, appendicitis and other gastro-intestinal tract disorders.
- Later in pregnancy may indicate preterm labour, abruption, or chorioamnionitis.

Common causes of bleeding may include:

- Miscarriage
- Retained Products of Conception RPOC
- Subchorionic haemorrhage
- Ectopic pregnancy
- Genital tract infection including endometritis
- Septicaemia which can occur secondary to infected RPOC and requires prompt management.
- Gestational trophoblastic disease
- Lower genital tract pathology such as cervical polyps, cervical erosions
- Later in pregnancy may include placenta praevia or placental abruption.

Guideline

All women in early pregnancy

a. prior and up to 15+6 weeks gestation (Refer to Flowchart A) and
b. equal to or after 16+0 weeks gestation (unscheduled presentations) (Refer to Flowchart B)

who present with vaginal bleeding and abdominal pain to the Emergency Department must first be assessed and triaged by a triage competent nurse as appropriate, according to the Australian triage Scale ATS and their main presenting complaint.

If the woman is an ATS Category 1 or 2, they must proceed immediately to the main department, to a resuscitation cubicle to receive prompt care.

If the woman is in ATS Categories 3, 4 or 5, then the triage nurse should allocate patient to the pink team to be assessed by ED MO in Fast Tack, unless an imminent appointment can be made with EPPAS.

Please note:
Women who are ≥16+0/40 weeks gestation with a primary obstetric complaint e.g. labour pains, bleeding without signs of vital sign instability, reduced fetal movements, or ruptured membranes will be referred to the Women's Health Unit by calling 9784 7959 or by calling the on call obstetric registrar on extension 1849.

Women who are ≥16+0/40 weeks gestation presenting with non-pregnancy related primary medical problems e.g. chest pain, asthma, shortness of breath should be seen and cleared initially by ED, following which they should be reviewed/admitted in the Women's health unit.

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Flowchart A: Assessment Algorithm: Pain and Bleeding in ED ≤ 15+6/40 weeks

Targeted History
- Age
- LMP, Gravida, Parity
- Confirmed pregnancy e.g. prior USS or β-hCG
- Contraception including emergency methods
- History of pain & bleeding
- Fasting status
- Medical conditions, past surgery
- Features concerning for ectopic pregnancy: previous ectopic pregnancy, IVF, IUD in situ, dizziness, shoulder tip pain, collapse

Is the woman stable or unstable?

Is there significant pain or bleeding?

Pain assessment: severity, unilateral or generalized, crampy or constant, sudden onset

Bleeding: frequency of pad changes and clot size (abnormal if >2 pads/hr and golf ball sized clots >4cm

EPPAS hours
Mon – Fri
0900 – 1630 hrs
See exclusion criteria

EPPAS EXCLUSION CRITERIA
- Severe abdominal pain needing strong analgesia
- Bleeding > 2 soaked pads/hr
- Gestation ≥ 16+0 weeks
- Diarrhoea & vomiting
- Dizziness, fainting, shoulder tip pain
- Unstable vital signs

CONTACT Gynae REG DIRECTLY (8316)

Unstable vital signs. Significant pain & bleeding

- Transfer to Resus Bay
- Site two large bore IVC (16G). Order FBE, G&X-match and b-hcg if unsighted pregnancy
- Immediate referral to Gynaecology registrar (8316) if before 1630 hours and Obstetric registrar (1849) if after 1630.
- Rapid warm fluid resuscitation
- Consider cervical shock: perform gentle speculum & vaginal exam to remove POC from cervix (send to pathology).
- Discuss with Gynaecology registrar need for urgent USS and further surgical management.
- If febrile, blood cultures and broad-spectrum intravenous antibiotics
- Consider admission under gynaecology bed card
- Monitor & document PV loss

Moderate to heavy pain and bleeding. Vital signs stable

- See in ED fast track
- Site IV cannula.
- Send FBE, G&H and b-hCG if unsighted pregnancy.
- Send urine for m/c/s and STI screen if < 25 years.
- Consider performing speculum exam to assess cervix.
- Consider performing bimanual pelvic exam: assess for cervical or adnexal tenderness, amount of bleeding.
- Request pelvic USS (TA & TV) whilst in ED/In patient.
- Contact gynaecology registrar for review (8316) or Obs Reg after 1630 (1849).
- Consider admission under gynaecology bed card. Alternatively consider ESSU admission.
- Monitor & document PV loss

Vital signs normal. No clinical concern about pain or bleeding.

Within EPPAS hours

- Call EPPAS clinic on #4605 for patient to be seen directly in EPPAS.

If no imminent availability in EPPAS book a future appointment AND follow below steps:

- EDMO review in fast track
- Send FBE, G&H (if not already on file) and b-hCG if unsighted pregnancy
- Send urine for m/c/s, STI screen if < 25 years
- Request USS (TA & TV) as outpatient-Patient will receive call from radiology.
- Discharge home with EPPAS brochure and contact numbers.

Outside EPPAS hours

- EDMO review in fast track.
- Send FBE, G&H (if not already on file) and b-hCG if unsighted pregnancy
- Consider speculum exam to assess cervix.
- Send urine for m/c/s, STI screen if < 25 years
- Request pelvic USS (TA & TV) as outpatient- Patient will receive call from radiology following day.
- Complete EPPAS attendance referral form, place in tray in fast track and document.
- Discharge home and give EPPAS brochure with contact numbers

Flowchart B: Assessment Algorithm: Pain and Bleeding in ED ≥ 16+0/40 weeks

Anti-D

- Anti D immunoglobulin (Ig) is used to inactivate fetal Rh-positive cells which may have crossed the placental barrier to enter the circulation of a Rh-negative mother.
- It is a blood product therefore written consent is required.
- Administration should be clearly documented in the maternal records and discharge summary (time and dose to be recorded in the medical notes).

ADMINISTRATION

- A current group & hold should be initially taken or available to confirm Rh status.
- Blood bank should be contacted so Anti D Ig is issued.
- Following a sensitising event (see indications below) Anti D Ig should be administered as soon as possible and always within 72 hours to all Rh-negative women.
- Exceptionally, if this deadline is not met, some protection may still be offered if Anti D Ig is given up to 10 days after the sensitising event.
- Routine testing for feto-maternal haemorrhage is **not** required.

DOSAGE

- 250 IU of Anti D Ig should be given where required at gestations ≤ 12 weeks.
- 625 IU of Anti D Ig should be given where required at gestations > 12 weeks.
- 625 IU of Anti D Ig should be given for multiple pregnancy regardless of gestation.

INDICATIONS FOR USE

- All miscarriages over 12 week's gestation including threatened miscarriage.
- All miscarriages where the uterus has been evacuated – medically or surgically.
- Threatened miscarriage particularly with gestation approaching 12 weeks if the bleeding has been heavy, repeated or associated with pain.
- Ectopic pregnancy whether medical or surgically managed.

EXCLUSIONS TO USE

- Threatened miscarriage under 12 weeks.
- Complete miscarriage under 12 weeks where there has been no formal attempt to evacuate the uterus, as the risk of feto-maternal haemorrhage is negligible.

Pregnant Adolescents

- Pregnant adolescents under the age of 18 are to be managed with all the normal services available to adult pregnant women.
- They do not generally require the input of the paediatric team for their (maternal) care.

They may have vulnerable socio-economic circumstances and benefit from a multi-disciplinary team input including mental health and social work where appropriate.**Management of POC (Pregnancy Tissue).**

- If POC are spontaneously passed regardless of gestation, please contact the gynaecology registrar, as further management is required.

- Tissue should be handled sensitively and not discarded.

- Refer to the tissue as 'pregnancy tissue' rather than 'products of conception' or 'products'. If the fetus can be seen, it is acceptable to refer to is as 'the baby'.

- POC can be gently assessed for completeness, the fetus and placenta may be identifiable.

- **Please keep them aside fresh (not in formalin) and as undisturbed as possible**. They may need to be reviewed by the gynaecology registrar and be sent (by the gynaecology registrar if indicated) for histology or karyotyping, particularly if history of recurrent miscarriage.

- POC should be kept in the same area as the mother, but can be obscured from view or left in an adjacent room if distressing.

- Some mothers may choose to keep the tissue for burial or grieving – this can be facilitated and staff should consider consulting RAD for further information about such services.

Comments about β-hCG

- **β**-hCG levels must be considered in the context of the clinical picture. Interpretation can be difficult and values often have wide ranges.

- Gestational age assessment should be done based on ultrasound and not **β**-hCG levels.

- It is important that counselling given to women with early pregnancy complications is **not** provided on the basis of **β**-hCG levels alone.

After approximately 7-week's gestation, short-term changes in **β**-hCG levels are unlikely to be solely helpful, in interpreting the clinical picture (with the exception of catastrophic falls).

β- hCG levels peak in the late first trimester around 11 to 12 weeks, after which they plateau and fall in normal pregnancy.

It is therefore not recommended to routinely perform serum β-hCG after 12 weeks gestation.

It is best that interpretation of **β**-hCG trends is performed by the EPPAS team or Gynaecology Registrar.

As a general guide:

- An early pregnancy is identifiable on transvaginal pelvic ultrasound if the **β**-hCG level is >1500 IU/L (discriminatory b-hCG zone).

- Fetal cardiac activity is usually seen after 6 weeks gestation or when the **β**-hCG level is >10,000 IU/L

- 66% of normal viable intrauterine pregnancies will demonstrate doubling of **β**-hCG levels double every 48 hours in the first 8 weeks of pregnancy.

- 15% of viable intrauterine pregnancies will not demonstrate a normal **β**-hCG doubling time in the first 7 weeks of pregnancy.

- 13% of ectopic pregnancies will also demonstrate a normal **β**-hCG doubling time.

- A sustained fall in b-HCG may be suggestive of miscarriage. It does not exclude ectopic pregnancy.

- A plateau or slow rise/fall or in **β**-hCG may be suggestive of either a miscarriage or ectopic pregnancy.

Support and Information Giving

- It is important to treat all women having pregnancy complications with dignity and respect. Clinicians should be aware that women and their partners may react to complications or the loss of a pregnancy in different ways.
- Provide all women with information and support in a sensitive manner, taking into account their individual circumstances and emotional response.
- Avoid terms such as ‘abortion’ and ‘products of conception’, instead use miscarriage or pregnancy tissue (see above)
- If the fetus has clearly been passed it is acceptable to refer to it as ‘the baby’
- Where possible, women should be cared for in appropriate rooms with consideration for privacy.
- Further care and support should be offered to these women via the social worker, SANDS https://www.sands.org.au/, or The Pink Elephants Support Network https://miscarriagesupport.org.au/.

Throughout a woman's care, give her and (with agreement) her partner specific evidence-based information in a variety of formats on when and how to seek help if existing symptoms worsen or new symptoms develop, including a 24-hour contact telephone number; where to access support and counselling services, including leaflets (EPPAS brochure), web addresses and helpline numbers for support organisations.

Key Aligned Documents

Methotrexate for Ectopic Pregnancy
Escalation to Senior O&G Staff
Anti-RH-D Immunoglobulin - Antenatal and Postnatal Administration
Initial Management of Critically Ill Obstetric patients
Post Partum Haemorrhage

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Antepartum Haemorrhage (APH)

Evaluation
Regular document revision and review of relevant VHIMS/RiskMan Reports.

References

1. NICE guideline. Ectopic pregnancy and miscarriage: diagnosis and initial management. Published 17 April 2019. www.nice.org.uk/guidance/ng126

2. RCOG guideline. Diagnosis and management of ectopic pregnancy. Green-top guideline No. 21. Published 04 April 2016. www.rcog.org.uk/en/guidelines-research-services/guidelines/gtg21/

3. RCOG Guideline. The Investigation and Treatment of Couples with Recurrent First-trimester and Second-trimester Miscarriage. Green-top guideline No. 17. Published April 2011. Updated Feb 2017. https://www.rcog.org.uk/en/guidelines-research-services/guidelines/gtg17/

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