1. **Purpose**
This document outlines a guideline for investigation and initial management of a presentation following induced early medical or surgical abortion or miscarriage.

2. **Definitions**
**Women:** This document refers to women to describe those with pelvic anatomy that includes a vagina, a uterus, ovaries, and/or fallopian tubes. It is recognised that not all people with such anatomy identify as women. We encourage the reader to consider the specific needs of nonbinary individuals and transgender men and adopt trans-inclusive practice.

**Miscarriage:** is the spontaneous end of a pregnancy prior to 20 weeks gestation.

**Early medical abortion:** refers to the administration of medications to end a pregnancy. In Australia the medications for medical abortion are marketed as MS-2 Step®. MS-2 Step® is a composite pack and consists of mifepristone 200 mg tablet and misoprostol 4x 200 microgram tablets. It is indicated for use in eligible women for the purpose of a medical abortion of a developing intrauterine pregnancy, up to 63 days of gestation.

**Surgical abortion:** refers to a transcervical uterine evacuation procedure to end a pregnancy. These include:
- Vacuum aspiration/suction curettage up to 13+6 weeks gestation.
- Dilatation and evacuation from 14+0 weeks gestation which is more technically demanding. This technique is available in Victoria up to 23+6 weeks in line with internal guidelines and the Victorian Abortion Law Reform Act 2008.

3. **Responsibilities**
Clinical staff involved in the care and management of women who present following an abortion or miscarriage are required to follow the relevant guideline as outlined.

4. **Guideline**
The majority of presentations following medical or surgical abortion or miscarriage are minor complications. It is important to be guided by the clinical presentation. Management of a post abortion or miscarriage presentation should respond to symptoms and signs rather than test results. Investigations are based on the clinical presentation. βhCG levels take several weeks to fall to zero. Ultrasound scan (USS) examination in the first two weeks post procedure is a poor indicator of the need for uterine evacuation. Blood clots or thickened endometrium are common USS findings and are not usually clinically relevant. Endometrial thickness alone is not predictive of the need for subsequent surgical intervention (ESHE, 2017).

Women presenting with possible haemodynamic compromise, haemorrhage and severe infection must be promptly assessed and treated.

5. **Investigations**
Depend on presentation and clinical features.

**Ultrasound scan** is indicated in the following presentations:
- suspicion of ectopic,
- significant increase in bleeding after initial passage of products of conception (POC),
- persistent bleeding 2 weeks post event or procedure,
- to exclude an ongoing pregnancy.
For medical abortion, an USS investigation earlier than 2 to 3 weeks post misoprostol is unlikely to assist management when the patient is clinically well and βhCG is dropping.

**Sexually transmitted infection (STI) pathology**

Women having an abortion at the Women’s are routinely screened for bacterial vaginosis, chlamydia, gonorrhoea, mycoplasma genitalium and syphilis and should have been treated if positive for any of these. Some women with miscarriage may also have been tested.

Check if antibiotics have been prescribed and/or taken. Consider risk of reinfection if STI diagnosed and partner untreated and possibility of resistant pathogens. For patients with a recent negative result who have not been sexually active, a repeat test is unlikely to be beneficial.

**Urinary tract infection (UTI) pathology**

MSU for microscopy culture and sensitivity as clinically indicated.

**Histology on tissue passed**

To confirm or exclude POC or gestational trophoblastic disease.

**βhCG**

βhCG is likely to be detectable at low levels for 4 to 6 weeks following abortion and miscarriage.

For medical abortion: a fall of 80 percent or more from a baseline level (taken within 72 hours of mifepristone administration) to Day 14 is indicative of a completed medical abortion. Alternatively, a low-sensitivity urine hCG test taken at least 2 weeks after the dose of mifepristone detects a hCG level of 1000 mIU/mL. A negative result confirms the abortion procedure.

If ectopic suspected, βhCG patterns must be considered together with clinical picture.

See: Pain and Bleeding in Early Pregnancy, and Ectopic Pregnancy Management Guideline.

### 6. Clinical presentation, investigations and management

<table>
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<tr>
<th>Presentation</th>
<th>Investigation</th>
<th>Management</th>
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</table>
| **Cardiovascular compromise and/or shock and/or heavy bleeding** | FBE Group & hold Cross match USS | Resuscitate as indicated  
Consider cervical shock, the combination of hypotension with bradycardia is suggestive of cervical shock, often due to POC in the cervix  
Check for peritonism on abdominal examination. If minimal vaginal bleeding, consider intraperitoneal bleeding (uterine perforation or rupture, ectopic pregnancy) or serious infection.  
Speculum examination to remove any POC in cervical os. This may resolve heavy bleeding and/or cervical shock. Send histology for any POC collected for miscarriage presentation only.  
If heavy bleeding persists may require evacuation of retained products of conception. Clinical findings are more important than USS scan. Don’t delay for USS if surgical evacuation is clinically indicated. |
| **Bleeding:** Persistent bleeding refers to bleeding beyond 2 weeks post miscarriage event or medical/surgical abortion procedure. Heavy bleeding is considered to be 2 (or more) saturated sanitary pads per hour for 2 consecutive hours or | FBE Iron studies PV swabs for MC&S Consider: Group & hold Cross match +/- USS | Consider infection  
Abdominal and pelvic assessment (speculum and bimanual examination) will usually be necessary.  
Remove any retained products of conception (RPOC) in cervical os.  
For a presentation with mild bleeding, examination findings normal, the patient is clinically well and infection is excluded, offer analgesia, reasure and schedule routine review as appropriate.  
Consider USS in the presence of persistent bleeding greater than 2 weeks post procedure.  
Bleeding beyond the expected next menstrual period requires investigation.  
Repeated presentations may warrant USS and/or curettage on symptomatic grounds |
Guideline

Abortion or Miscarriage - Management of Presentation following Medical or Surgical Abortion or Miscarriage

- passing large clots; woman feels faint or perceives the bleeding as heavy. **Haemorrhage** is defined as blood loss greater than 500ml or bleeding requiring transfusion.
- For medication abortion (MS2Step): the average bleeding time is 10 to 16 days and may last up to 30 days. It is important to distinguish between troublesome bleeding versus pathological bleeding. Consider the role of any hormonal contraception used since the abortion procedure or miscarriage and its influence on the bleeding pattern.

<table>
<thead>
<tr>
<th>Retained products of conception (RPOC) confirmed by USS:</th>
<th>FBE</th>
<th>Iron studies</th>
<th>USS</th>
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<tbody>
<tr>
<td>RPOC indicates an incomplete abortion or miscarriage and refers to nonviable placental or fetal tissue retained in the uterine cavity or cervical canal.</td>
<td>RPOC is a common complication following a miscarriage or abortion. While more common after expectant or medical management, it can also occur after surgical management. Routine USS following miscarriage or abortion is NOT recommended as blood clot, debris, or thickened endometrium are common findings and are not usually clinically relevant. Common symptoms of RPOC are heavy or prolonged vaginal bleeding and/or abdominal pain. USS is recommended in the following clinical situations to confirm the diagnosis of RPOC. For medical or surgical procedure retain a high index of suspicion if bleeding patterns post-procedure include:</td>
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<td>at 7 days:</td>
<td>• bleeding is heavier than the normal menstrual period or contains clots • persistent cramps • bleeding that waxes and wanes and has been as heavy as a normal period for at least the past 24 hours</td>
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<td>at 14 days:</td>
<td>• bleeding is heavy or bleeding is persistent and has not markedly reduced</td>
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<tr>
<td>at 4-5 weeks:</td>
<td>• bleeding is ongoing after next expected menstrual period Management of RPOC is based on symptoms or patient preference. Asymptomatic or incidental findings of RPOC do not routinely require management. <strong>Expectant management, medical or surgical</strong> options may be appropriate according to clinical indicators and patient's preference. <strong>Expectant management</strong>: allows for spontaneous passage of POC and avoids potential surgical and anaesthetic risks. However, the timeframe for resolution and outcome are unpredictable. Allow up to 2 weeks for spontaneous resolution and expect ongoing pain and bleeding over this time. <strong>Medical management</strong>: Avoids potential surgical and anaesthetic risks with the option for treatment at home if desired and suitable. The disadvantages are the same as above and with medication side effects: nausea, vomiting, diarrhoea. Ensure patient is aware of transient gastrointestinal disorders, chills and fever, pain and bleeding. Ensure at home supports are available <strong>Prescribe</strong>: misoprostol 800mcg (4 x 200mcg tablets) buccal followed by a repeat dose of 400mcg (2 x 200mcg tablets) 4 hours later if required. Prescribe analgesia and anti-emetics. Consider: • Ibuprofen 400mg 8 hourly PRN ; with • Paracetamol 1g 4 to 6 hourly PRN, or • Paracetamol-codeine 1g-60mg 6hourly PRN (maximum of 4g paracetamol per 24hours).</td>
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### Arrange follow up:
- Arrange telephone support phone call within 48 hours (2 days) of consultation and the administration of misoprostol. Where possible a telephone call will be arranged on the day the patient self-administers the medication.
- A second phone call will be arranged at 7 days.
- Additional follow-up review (face-to-face or telephone) arranged as appropriate.

### Surgical management:
Allows for a planned procedure with predictable time frame. The relief from symptoms are immediate with less blood loss and shorter duration of bleeding than expectant or medical management. Surgical management is strongly recommended if:
- hemodynamically unstable
- evidence of infection (surgery under antibiotic cover)
- unacceptably heavy bleeding

In general, surgery not recommended in the absence of symptoms unless diameter of POCs >35 mm.
If an IUD is in situ, surgical management is required with replacement of the IUD.
Suction curettage has almost 100% success rate.
The surgical list is managed by the Acute Gynaecology Registrar in consultation with the Consultant.

### Infection:
**Non-severe infection:** may present with abdominal pain, prolonged bleeding, offensive vaginal discharge. The most common infections are endometritis and undefined genital tract infection. These patients will generally be afebrile.

**Severe infection:** consider the possibility of significant infection in any women presenting generally unwell in the first few days following miscarriage or abortion.

<table>
<thead>
<tr>
<th>Infection and intrauterine contraceptive device (IUD) in situ</th>
<th>FBE PV swabs for MC&amp;S</th>
<th>Consider: CRP Urine MC&amp;S Blood cultures</th>
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<tr>
<td>Refer to Therapeutic Guidelines for up to date guidance, current in April 2019</td>
<td>May be accompanied by RPOC with bleeding. Infections are usually polymicrobial. Evidence of infection with significant RPOC may require curettage 12-24 hours after antibiotics are initiated. Patients with severe infection will require admission and may present with specific signs and symptoms such as offensive discharge, significant pelvic tenderness and/or fever (&gt;38°C), or with less specific features such as persistent nausea, vomiting, diarrhoea, dizziness and/or fainting, with or without fever. Careful assessment is urgent as women with serious infections may rapidly deteriorate. Discuss with Acute Gynaecology Registrar. For positive STI diagnosis or if STI cannot be excluded manage according to PID pathway. See: <a href="https://tgldcdp.tg.org.au.acs.hcn.com.au/viewTopic?topicfile=pelvic-inflammatory-disease-postprocedural-pelvic-infection&amp;sectionId=abg16-c58-s3#abg16-c58-s3-2">https://tgldcdp.tg.org.au.acs.hcn.com.au/viewTopic?topicfile=pelvic-inflammatory-disease-postprocedural-pelvic-infection&amp;sectionId=abg16-c58-s3#abg16-c58-s3-2</a></td>
<td>If an STI can be excluded manage according to Postpartum endometritis pathway. See: <a href="https://tgldcdp.tg.org.au.acs.hcn.com.au/viewTopic?topicfile=postpartum-endometritis&amp;sectionId=abg16-c93-s2#abg16-c93-s2-1">https://tgldcdp.tg.org.au.acs.hcn.com.au/viewTopic?topicfile=postpartum-endometritis&amp;sectionId=abg16-c93-s2#abg16-c93-s2-1</a></td>
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### Infection and intrauterine contraceptive device (IUD) in situ
Removal of an IUD is not required unless the infection is severe or there is no clinical improvement within 48 to 72 hours of starting therapy. The IUD is removed if surgical intervention is required.
If the intrauterine contraceptive device is removed, a new device can be inserted once the infection has resolved.

### Toxic shock syndrome:
A very rare and potentially fatal

| Toxic shock syndrome may present with malaise, cramping, vomiting, diarrhoea, fainting and/or collapse, associated with refractory hypotension, pleural effusion and/or ascites, haemoconcentration and leucocytosis. There may or may not be fever and chills. |
| FBE UEC LFT’s Coagulation |
### Ongoing pregnancy:
Indicated by persistent pregnancy signs and symptoms such as amenorrhoea, sore breasts, nausea or nonresolving βhCG measurement.

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<tr>
<td>CRP, Group &amp; hold, Cross match USS, PV swabs for MC&amp;S, Blood culture</td>
<td>Septic shock may be associated with Clostridium and Group A streptococcus. Exercise vigilance in considering clostridial infections when patients present with vague symptoms. Consider uncommon pathogens associated with patients who have recently returned from overseas. Discuss management with Infectious Diseases Consultant and/or High Dependency Care Team. For abortion follow up: Internal referral to ACS via EPIC External provider can fax referral to Abortion &amp; Contraception Service 8345 2833 For miscarriage follow-up: Internal referral to EPAS via EPIC External provider can fax referral to Access Centre 8345 3036</td>
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### Ectopic pregnancy:
Retain an index of suspicion. Symptoms of ectopic pregnancy are: severe abdominal pain, unilateral pelvic or shoulder tip pain, onset of weakness, heavy bleeding.

| FBE, βhCG, USS | Ectopic pregnancy can be easy to overlook if missed initially and assumption continues that pregnancy is/was intrauterine; rupture and death have occurred in this situation. If available, check the initial USS to confirm the pregnancy was intrauterine. Consider heterotopic pregnancy, especially following assisted reproduction. See: Ectopic Pregnancy Management Guideline |

### Gestational trophoblastic disease (GTD):
May present with heavy or persistent bleeding after miscarriage or abortion.

| βhCG, USS, Histology | Persistently elevated βhCG may be suggestive of GTD. Definitive diagnosis is made by histology of products of conception (POC). See: Gestational Trophoblastic Disease Guideline |

### 7. Review arrangements as required
For abortion follow up: Internal referral to ACS via EPIC External provider can fax referral to Abortion & Contraception Service 8345 2833 For miscarriage follow-up: Internal referral to EPAS via EPIC External provider can fax referral to Access Centre 8345 3036
8. Evaluation, monitoring and reporting of compliance to this guideline

Compliance to this guideline or procedure will be monitored, evaluated and reported through VHIMS and consumer feedback.

9. References


10. For more information see PGP

- Abortion: Principles of assessment and care
- Abortion: medical management, up to 9 weeks of pregnancy
- Miscarriage: Management
- Pain and Bleeding in Early Pregnancy

11. Legislation/Regulations related to this guideline

- Abortion Law Reform Act 2008