Postabortion Care Reference Manual

Ministry of Health
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Postabortion Care Reference Manual

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About this manual

The primary purpose of this manual is to prepare public sector health-care providers to provide women with high-quality postabortion care (PAC) services as an integral component of comprehensive reproductive health service in Myanmar. This manual provides guidance to health-care personnel on improving the quality of care available to women needing management of miscarriage or postabortion complications. This manual primarily focuses on the management of women experiencing only light to moderate vaginal bleeding, otherwise known as uncomplicated postabortion care cases. It also includes a series of medical and related interventions designed to manage more serious complications of miscarriage and abortion in hospitals that have the facilities.

This manual is designed to be used as a participant’s manual during trainer-facilitated courses that include simulated practice and clinical practice with clients under the supervision of an experienced clinical trainer. It is also designed as a learner’s resource to help refresh and strengthen participants’ skills after completion of a course, and as a reference document for those seeking up-to-date information on postabortion care.

This manual includes information on identifying women in need of postabortion care; obtaining informed consent; ensuring privacy and confidentiality; assessing for and managing shock; conducting a complete clinical assessment; diagnosing, managing and referring cases with complications; developing a treatment plan that includes pain management; preventing infection; and managing occupational exposures. It provides in-depth clinical information on surgical management and medical management for postabortion care, including the recommended uterine evacuation methods, their benefits and costs, and possible risks and side effects. In addition to clinical information, the modules include considerations for assessing and treating special populations and addresses broader service delivery and access issues such as client-provider communication and the management of personal values, opinions, and biases in a professional setting; provider and community partnerships, quality of care, and monitoring to improve services. Finally, the modules cover the provision of counseling on procedure options, pain management options, and postabortion contraception options.
# Table of Contents

<table>
<thead>
<tr>
<th>MODULE 1:</th>
<th>Overview and Guiding Principles</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>MODULE 2:</td>
<td>Clinical Assessment and Management of Miscarriage/Abortion and Complications</td>
<td>7</td>
</tr>
<tr>
<td>MODULE 3:</td>
<td>Uterine Evacuation Methods</td>
<td>39</td>
</tr>
<tr>
<td>MODULE 4:</td>
<td>Informed Consent, Information and Counseling</td>
<td>55</td>
</tr>
<tr>
<td>MODULE 5:</td>
<td>Infection Prevention</td>
<td>67</td>
</tr>
<tr>
<td>MODULE 6:</td>
<td>Ipas MVA Instruments</td>
<td>79</td>
</tr>
<tr>
<td>MODULE 7:</td>
<td>Surgical Management of Postabortion Care</td>
<td>99</td>
</tr>
<tr>
<td>MODULE 8:</td>
<td>Medical Management of Postabortion Care</td>
<td>137</td>
</tr>
<tr>
<td>MODULE 9:</td>
<td>Postabortion Contraceptive Counseling and Services</td>
<td>159</td>
</tr>
<tr>
<td>MODULE 10:</td>
<td>Community Linkages</td>
<td>179</td>
</tr>
<tr>
<td>MODULE 11:</td>
<td>Monitoring to Improve Services</td>
<td>183</td>
</tr>
</tbody>
</table>
Module 1: Overview and Guiding Principles

1.0 Introduction

Postabortion care (PAC) is a series of interventions designed to strengthen the management of miscarriage and postabortion complications as an integral component of the essential package of reproductive health (RH) services. This manual is intended to improve the availability and quality of care given by non-specialist doctors within the health system at Station Hospitals, Township Hospitals or District Hospitalsto women presenting withmiscarriage and possible postabortion complications. PAC is an important component of comprehensive reproductive health services, saving women’s lives, reducing morbidity and improving women’s reproductive health and lives.

“Woman-centered” PAC is a comprehensive approach which takes into account a woman’s individual physical and emotional health needs and circumstances and ability to access care. It includes the essential care and emergency care for women with miscarriage or abortion and its complications; compassionate counseling; contraceptive services; related reproductive health services provided onsite or via referrals to accessible facilities; and community-service provider partnerships.

A woman receives high-quality PAC when:
• She is provided as many choices as possible.
• She can gain access to services.
• She is offered respectful, non-stigmatizing, confidential care.


The specific objectives of the Myanmar Strategic Plan on RH (2014-2018) are:

1. To reduce rates of maternal, perinatal and neonatal morbidity and mortality by increasing equitable access to maternal and newborn services; improving quality, efficiency and effectiveness of service delivery at all levels; and improving responsiveness to the client needs.
2. To reduce unmet need for family planning, unplanned births as well as socio-economic disparities in access to and use of contraception.
3. To strengthen management of miscarriage and post-abortion care as an integral component of comprehensive reproductive health services.
4. To expand access to RTI/STI/HIV services within RH programmes, reduce transmission of RTI/STI/HIV including prevention of mother to child transmission of syphilis and HIV.
5. To expand reproductive health information and services for adolescents and youth.
6. To increase services for screening and treatment of cervical cancer.
7. To support access to investigation and management of the infertile couple.

These new objectives are consistent with global perspectives regarding abortion-related care (See World Health Organization and other publications in References below.)

This module provides the foundation for the manual. It is a recommended prerequisite for health-care providers receiving training in postabortion care and provides an introduction to the following concepts:

• Postabortion care
• Client rights
• Provider ethics

More information on delivering care based on the concepts included in this module is in subsequent modules.

2.0 Woman-centered postabortion care

2.1 Postabortion care consists of five elements:

• Treatment of abortion and abortion-related complications that are potentially life-threatening
• Counseling to identify and respond to women’s emotional and physical health needs and other concerns
• Postabortion family-planning counseling and service provision to help women prevent unwanted pregnancy and practice birth spacing
- Reproductive and other health services
- Community and service-provider partnerships

(Adapted from Postabortion Care Consortium, 2002)

Each of these elements will be addressed in subsequent modules.

2.2 Postabortion care has three aims:

Woman-centered postabortion care includes a range of medical and related health services and is comprised of three aims:

1. Choice
2. Access
3. Quality
Choice
In postabortion care, choice means that it is a woman’s right to:

- Determine which available postabortion care procedures, contraceptives, providers and facilities she will use;
- Be provided the means to determine if and when to become pregnant in the future;
- Have her choices be informed by complete and accurate information; and
- Have the opportunity to ask questions and express concerns to providers.

To be woman-centered in their care, health workers must recognize and respond to a woman’s right to choices, regardless of her age or marital status.

Access
A woman’s access to services is determined in part by the availability of trained, technically competent providers who:

- Use appropriate clinical technologies;
- Are easily reached in local communities;
- Charge affordable fees and deliver services in a timely manner without undue logistical and administrative obstacles, and provide emergency services regardless of a woman’s ability to pay; and
- Display respectful, caring, empathetic attitudes.

Access is also influenced by cultural factors and the long-term sustainability of services.

Quality
Some fundamental aspects of high-quality care are:

- Tailoring care to social circumstances and individual needs;
- Providing information and counseling that supports fully informed choices, including for young women who may need more information or time to make an informed choice;
- Ensuring confidentiality, privacy, respect and positive interactions between women and staff of the health facility, regardless of age or marital status;
- Using internationally recommended medical technologies, particularly manual vacuum aspiration (MVA) and misoprostol for PAC;
- Using appropriate clinical standards and protocols for infection prevention, pain management, and managing complications;
- Providing contraceptive services and a range of contraceptive method choices at the time of postabortion services to help women prevent unwanted pregnancies and ensure healthy spacing of children;
• Providing reproductive and other health services, such as screening, diagnosis and treatment of sexually transmitted infections (STIs), including HIV, and screening and counseling for sexual violence;

• Ensuring the unique needs of young women are addressed;

• Having systems in place for monitoring adverse events; and

• Having systems in place for quality improvement, including involvement from community members.

4.0 Summary

• This module serves as the recommended prerequisite for this manual.

• All women, including young women, have the right to high-quality postabortion care.

• High quality PAC is a comprehensive approach to meeting each woman’s medical and psychosocial needs at the time of treatment for abortion-related complications.

• Postabortion care (PAC) is composed of five elements designed to manage incomplete miscarriage/abortion and ensuing complication or issues:
  — Treatment
  — Counseling
  — contraceptive services
  — Reproductive and other health services
  — Community and service-provider partnerships

• Choice, access and quality are three key elements of woman-centered postabortion care.

• Health-care workers can give woman-centered PAC by:
  — Providing respectful, confidential services
  — Involving women in their treatment
  — Offering as many choices as possible
  — Explaining the woman’s condition and management to her in simple language and obtain her voluntary, informed consent prior to initiating care
  — Ensuring that women’s rights to high-quality care are honored
  — Giving women complete and accurate information
  — Understanding the concept of women’s rights in order to conduct professional interactions and to provide compassionate, high-quality care

• Service providers need to be trained, technically competent, and use appropriate clinical technologies in order to provide high-quality care.
References


Overview and Guiding Principles
Module 2: Clinical Assessment and Management of Miscarriage/Abortion and Complications

Key topics in this module:

- Rapid initial assessment and management of shock
- Steps of a complete clinical assessment
- Identifying women in need of postabortion care
- Steps to diagnose, manage or refer cases with complications

1.0 Introduction

Women of reproductive age who develop vaginal bleeding after a period of delayed menses or a period of amenorrhea with positive Urinary Chorionic Gonadotrophin (UCG) test (in places where the test is available) can be identified as bleeding in early pregnancy. Bleeding can occur in the first trimester (≤12 weeks) or in the second trimester (>12 weeks to 22 weeks).

Women who are pregnant and present with vaginal bleeding and/or lower abdominal pain or cramping may have a missed miscarriage, threatened miscarriage, inevitable miscarriage/abortion or
incomplete miscarriage/abortion, possible complications from an unsafe abortion, or complications resulting from previous postabortion care. The symptoms could also be due to ectopic pregnancy or hydatidiform mole. To give them care, clinical assessment should focus on the health status of the woman, identification of whether she has any abortion-related complications and exclusion other causes of bleeding in early pregnancy.

Women who present for postabortion care need to have a rapid initial assessment for shock. Some women will be haemodynamically unstable with serious complications that need immediate attention including severe bleeding or hemorrhage, infection or sepsis and intra-abdominal injury. Once a woman has been stabilized, the clinical assessment should focus on the type of miscarriage/abortion, whether there are complications that need attention and her eligibility for methods of uterine evacuation.

In general, most women who present for postabortion care are haemodynamically stable with light to moderate vaginal bleeding and no other complications. These women need a full clinical assessment and, depending on the results, a uterine evacuation procedure may be necessary. Other women may present with more serious complications that are the result from injury or infection during an unsafe abortion procedure, or incomplete uterine evacuation. Often, because of low health literacy, barriers to access healthcare or stigma, women will delay seeking care after an unsafe abortion, which makes their condition worse. In the postabortion care setting, women may present with multiple complications that need emergency management.

When a woman has a life-threatening emergency condition, complete clinical assessment and voluntary informed consent may be deferred until actions have been taken to save the woman’s life.

Because emergency situations are often frightening or disturbing, women who present with complications, and their families, need emotional and psychological support. Providers should communicate openly with the woman and her family about her condition and treatment.

It is essential to assess a woman’s clinical status and eligibility for medical methods, vacuum aspiration or expectant management. This allows the provider to assist the woman in making an informed choice about her preferred method of uterine evacuation.

### 2.0 Rapid initial assessment and management of shock

The rapid, initial assessment should be performed on all women presenting for care. (Please see Appendix 2.1.) Any member of the facility staff can quickly check the Airway, Breathing, Circulation, and Consciousness of the woman, as well as whether she has had or is having Convulsions (the “ABC” signs) to identify if she needs urgent care. If a woman is severely ill, the staff member should call for help and activate emergency procedures. (For more information on the ABC signs assessment, see WHO’s IMAI District Clinician Manual: Hospital Care for Adolescents and Adults: Guidelines for the Management of Common Illnesses with Limited Resources.) Vital signs including temperature, blood pressure, heart rate and respiratory rate should be recorded. Signs and symptoms of shock should be assessed. If a woman shows signs and symptoms of shock or has heavy vaginal bleeding, she needs immediate stabilization. The initial stabilization steps should be taken for all women showing signs of shock or with heavy bleeding even if the cause is unknown. (Please see Appendix 2.2)

Shock can develop in any patient at any time during postabortion care, especially if significant injuries were not initially detected. Therefore, it is important to be alert for signs of developing shock.
throughout the woman’s treatment. Whenever signs of shock develop, health care workers should assess the stage and severity of shock immediately and take rapid action to keep her condition from worsening and save her life.

**Signs of shock**

- Low blood pressure (SBP <90mm HG)
- Fast pulse
- Decreased capillary refill (pale, cold extremities)
- Dizziness or inability to stand (feeling faint)
- Low urine output (<30 ml per hour)
- Difficulty breathing
- Impaired consciousness, lethargy, agitation, confusion

**Stabilization for shock**

*If signs of shock or heavy bleeding*

- Ensure that airway is open. Turn her head to the side to prevent aspiration.
- Elevate the legs to increase the return of blood to the heart.
- Give oxygen 5L/minute by mask or nasal cannula.
- Insert one or two large bore IVs, give 1 liter rapid bolus crystalloid (LR or NS) then reassess. Give second liter if vital signs remain abnormal.
- Transfuse if vital signs remain unstable after 2 liters IV fluid.
- Keep warm.
- Place urinary catheter.
- Monitor fluid intake and output including ongoing blood loss.
- Send laboratory evaluations including blood type and crossmatch, hematocrit and hemoglobin, blood cultures and chemistry tests if available.
- Monitor and record vital signs every 15 minutes.
- Prepare for emergency transfer if woman cannot be treated in the facility.

**3.0 Complete Clinical Assessment**

The components of a complete clinical assessment are:

- Client history
- Physical examination
- Collection of specimens and ordering of any lab tests, only if needed

An important part of the clinical assessment is an evaluation of the woman’s emotional state, family circumstances, support systems and relevant relationship as they have a direct bearing on her clinical experience. Open, supportive communication and a gentle, reassuring manner help ensure that the provider obtains the relevant information needed to offer the best possible care for the woman. (Please see the Informed Consent, Information and Counseling module.)
3.1 Client history

A client history is important to determine the woman’s gestational age and eligibility for available methods, and to provide information that will help the provider meet her other reproductive health needs. The provider needs to ask the woman about and record her medical history, including:

**Presenting symptoms**

*Period of amenorrhoea*

*Duration and type of bleeding*

- Whether she has had any bleeding or spotting during the pregnancy
- Vaginal bleeding or foul smelling discharge per vaginum
  - Note duration
  - Note amount
  - Light to moderate bleeding: less than or equal to a normal menstrual period
  - Severe vaginal bleeding: soaking more than two sanitary pads per hour for two consecutive hours, especially is accompanied by prolonged dizziness, and increasing fatigue

*Symptoms of pregnancy*

- Nausea
- Vomiting
- Breast tenderness
- Whether she had a pregnancy test or ultrasound and what the results were
- Other

*Other associated symptoms*

- Passage of POC
- Lower abdominal pain
  - Onset: acute or sub-acute
  - Duration
  - Nature: cramping or continuous dull achiness
  - Whether it is intermittent (like contractions) or constant
  - Severity on a scale of 1 to 10, (10 = “worst pain I’ve ever felt”);
- Fever and chills
- Shoulder tip pain
- Frequent passage of mucous stool

*Other histories*

*Menstrual history*

- First day of last menstrual period (LMP)
- Overdue period or absence of menstrual period
Obstetric and gynecological history

- Number of previous pregnancies, live births, miscarriages or abortions, history of ectopic pregnancy, fibroids, infections or any recent abortion-related care
- Sexual history, such as number of partners or recent new partners;
- HIV status and presence of sexually transmitted infection (STI)

Last contraceptive use

- Type and date used
- Any regular menstrual period after last contraceptive use

History of present illness

- Wanted pregnancy or not
- History of taking “menstrual regulators,”other drugs, etc.
  - Note date and time of intervention
  - Note method used
- History of interference: traditional medicine, “modern medicine” (to bring on menstruation,)
  massage per abdomen, prior administration of misoprostol, manipulation per vagina
  - Note date and time of intervention
  - Note method used
- Medications (ie: antibiotics)

Medical and surgical history

- Previous surgeries
- Bleeding or clotting disorders, medical disease, drug allergies
- Known health conditions (See Table 2.2)
- Physical or cognitive disability, including mental illness

(Please see Appendix 2.3: Sample client intake form for an example.)

Last menstrual period (LMP)
The LMP refers to the first day of a woman’s last menstrual period. A woman may need help remembering this date. Questions about where she was, what she was doing and what was happening in her life may help her recall when her last period began.

LMP estimations may be difficult for other reasons, including:

- Women presenting for postabortion care may experience bleeding during early pregnancy, which can be mistaken for a menstrual period.
- A young woman may experience irregular menstrual cycles or may never have experienced a menstrual period before she becomes pregnant.
- Breastfeeding women may become pregnant without having regular menstrual periods.
- Certain methods of contraception may make menstrual cycles irregular or infrequent.

Use of LMP to estimate gestational age may be more accurate for women who rely heavily on fertility awareness methods. However, a woman’s LMP should not be the only factor in determining the gestational age of a pregnancy. Because women presenting for postabortion care may need treatment for a pregnancy that has been partially expelled or for a pregnancy that has stopped developing, the uterine size on clinical examination is more important to determine appropriate care.

Note: women in rural areas use the Burmese calendar
Issues to note in the clinical history: LMP and prior administration of misoprostol

Providers may see women who had misoprostol prior to seeking care in the health system. Providers should be aware of the clinical implications that may accompany prior misoprostol use. If women used the recommended regimens, the success rate for misoprostol only is 85 percent. For the 15 percent of incomplete uterine evacuations women may present with an ongoing pregnancy or may require vacuum aspiration to empty the uterus. Even if a woman has already used misoprostol before presenting in the facility, she may be offered misoprostol for uterine evacuation if she is medically eligible. Some women may present with significant bleeding that needs urgent treatment. Women with an ongoing pregnancy should be counseled about the very rare risk of birth defects.

If misoprostol has been used in a pregnancy 13 weeks or greater, providers should be alert to the potential for heavy bleeding, which may be stopped by vacuum aspiration. Cervical dilatation may not be needed in vacuum aspiration when misoprostol has been used because misoprostol softens the cervix.

(Please see the Medical Management of PAC module.)

3.2 Physical examination

General Examination

The physical examination should begin with a general health assessment, which includes:

- Checking and recording the woman’s vital signs, such as temperature, pulse, and blood pressure, respiration rate
  - Examination of cardio-vascular system (CVS)
  - Examination of respiratory system
- Noting signs of general health, including weakness, lethargy, anemia or malnourishment
- Checking the woman’s abdomen for masses and tenderness
  - Soft and moves with respiration or distended abdomen or tense and rigid abdomen with guarding
  - Any tenderness and rebound tenderness
  - Any palpable mass or uterine enlargement
  - Any uterine tenderness
  - Signs of free fluid
  - Liver dullness obliterated or intact
  - Decreased bowel sounds or absent bowel sounds
Pelvic examination

Clinicians who provide postabortion care should be experienced in pelvic examination and be competent in dating and sizing a pregnancy. Three commonly used approaches to pregnancy dating are:

- Determining the date of the last menstrual period (LMP)
- Performing a pelvic examination to assess uterine size
- Using ultrasound

Although understanding the gestational age is important, the uterine size is critical in postabortion care as it determines eligibility.

The pelvic examination includes a speculum and bimanual examination, which may be conducted consecutively or in either order. Prior to performing a pelvic examination, the clinician should ask the woman to empty her bladder and let her know what to expect. This is especially important if this is the woman's first pelvic examination, which is most likely in young or nulliparous women.

Positioning the woman

- Help the woman move into the lithotomy position.
- Use drapes or linens to make sure her privacy is protected.
- Attend to any special anatomical or physical needs, including disability, arthritis or injuries.
- Attend to any IV lines or other critical items.
- Ensure that she feels as comfortable as possible.

Verbal reassurance

*Explain to the woman what to expect and what she might feel before beginning the pelvic examination. Ask her if she would like to have a support person with her. If this is her first pelvic examination, she may be anxious, and it is particularly important to reassure her. (For more examples of verbal reassurance, please see the Uterine Evacuation Procedure with Ipas MVA Plus® module.)*

**Note:** Where leg supports are not available, the dorsal position can be used. In this position, the woman's pelvis should be raised by placing a stack of blankets or linens under her lower back or upper buttocks.

Speculum examination

The speculum examination can be performed during the clinical assessment or during preparation for the uterine evacuation procedure. Before inserting the speculum, inspect the external genitalia and perineum. Note whether there are ulcers or signs of STIs on the external genitalia.

- Warm the speculum if possible; this can be done under the examination light.
• Gently insert a speculum of the appropriate size and inspect the cervix and vaginal canal carefully.

• Check for bleeding. If present, check the amount and source of the bleeding.

• Check for an open cervical os or products of conception in the os or vagina. If products are noted, they may be removed gently with ring forceps.

• Note if the blood or any discharge has an odor. Infection is sometimes indicated by a foul odor.

• Note any pus or discharge from the cervical os. Active cervical infection present at the time of a uterine evacuation procedure increases the chance of postabortal infection.
  — If infection is present or suspected, take samples for culture, if possible.
  — Women with signs and symptoms of a reproductive tract infection should be treated immediately and the procedure can be performed without delay. (Please see Appendix 2.4: Provision of Antibiotics.)

• Note any cervical lesions; visual inspection of the cervix can help identify some abnormal cervical lesions.

• Check for foreign body or injuries.

Bimanual examination

• The provider should perform a bimanual examination to assess the size, consistency and position of the uterus and adnexa.

• Signs of pregnancy, including softening of the cervix and softening and enlargement of the uterus, are detectable during the bimanual examination as early as six to eight weeks since the LMP.

• Women with signs of a pelvic infection will have cervical, uterine or lower abdominal tenderness on bimanual examination.

• After six weeks gestation, the uterus increases in size by approximately 1 centimeter per week and takes on a roundish shape.

• To assess the uterus and adnexa, the provider places two fingers into the vagina and then palpates the abdomen with the other hand. The size of the uterus is then compared with the history of amenorrhea.

• The technique of assessing uterine size is the same in all women, including young women. If the uterus is smaller than expected, providers should consider one of the following conditions:
  • The woman is not pregnant
  • Inaccurate menstrual dating
• Spontaneous or incomplete miscarriage/abortion, missed miscarriage/abortion or abnormal intrauterine pregnancy, such as molar pregnancy

• Normal variation between women at a given length of pregnancy

• Ectopic pregnancy

If the uterus is larger than expected, providers should consider one of the following conditions:

• Inaccurate menstrual dating

• Multiple pregnancies

• Uterine anomalies such as fibroids or bicornuate uterus

• Molar pregnancy (although the uterus can sometimes be smaller also)

• Normal variation between women at a given length of pregnancy

Situations that make it difficult to accurately assess uterine size include fibroids, retroverted position of the uterus, obesity, full bladder or the woman contracting (not relaxing) her abdominal muscles. If a clinician is uncertain about the uterine size, it may be helpful to ask another provider to perform a bimanual exam or, if readily available, use ultrasound.

3.3 Special considerations during clinical assessment

Young women

Most aspects of providing postabortion care for young women are the same as for adultwomen, but there are some special considerations:

• This is likely a young woman’s first pelvic examination, and she may be nervous or afraid. Therefore, providers should take special care to:
  — Ensure that there is at least visual and preferably auditory privacy.
  — Explain what you are doing at each step.
  — Perform the examination as gently and smoothly as possible. If a range of specula sizes is available, use the size appropriate for the woman and conducive to the examination or procedure.

• Although women of all ages need pain management, the perception of pain and use of analgesia has been found to be higher on average in younger women than in older women.

Young women’s life and social circumstances are often very different, requiring care tailored to their unique circumstances, especially concerning counseling and provider attitudes. Providers should make a conscious effort to keep personal beliefs from limiting their ability to give the best care possible to young women.

Violence

Women who have experienced violence may be afraid or feel uncomfortable about being touched. There are often no physical signs of violence against women. However, providers should be alert to the following signs, while understanding that these signs can also be present outside the context of violence:

• New or old bruises on the woman’s body, including the genital area, head, neck or upper arm;
Injuries that do not fully match the explanation of how they occurred;
- Burns or marks
- STIs, pelvic inflammatory disease, urinary-tract infection, chronic pelvic pain;
- Vaginal bleeding, painful defecation or painful urination and abdominal or pelvic pain.

These signs may indicate the need for further discussion and screening for violence by providers to determine if a woman is in a dangerous situation. If this proves to be the case, providers should do what they can to help the woman before she leaves their care. Referrals to existing resources should be made before she leaves the facility, as many women may not return for follow-up appointments. (Please see: Special Considerations in the Informed Consent, Information and Counseling module.)

4.0 Investigations

History and physical examination are typically sufficient to make a diagnosis of miscarriage/abortion. No routine laboratory testing is required. If there is doubt that the woman is pregnant, the use of a pregnancy test or ultrasound can be performed. Hemoglobin/hematocrit are optional but can be helpful if anemia is prevalent or in the management of severe hemorrhage and/or shock. Other investigations that can be conducted if clinically necessary and the resources are available include:
- UCG
- Blood CP, Grouping and Rh typing
- HVS for Culture and Sensitivity if infection is suspected
- Posterior colpocentesis (PoD puncture) if pelvic abscess is suspected

If facilities are available and these assessments are clinically necessary:
- X-ray abdomen for gas under diaphragm if uterine perforation is suspected
- Ultrasound abdomen and pelvis

Note: Ultrasound is not required for postabortion care. Ultrasound can be used when there is difficulty assessing gestational age or uterine size based on history and exam, to assess uterine evacuation completion and to diagnose other conditions requiring treatment, such as ectopic pregnancy. Routine ultrasound may increase the cost of the procedure and the likelihood of unnecessary intervention. Ultrasound and serial βHCG testing can aid in the diagnosis of unruptured ectopic pregnancy, but access to these tests may be limited.

4.1 Other Reproductive health issues

The postabortion care visit is an opportunity to screen for other reproductive health issues including cervical dysplasia and cancer and reproductive tract infections. These services may be offered to women if they are available but are not required to provide care.

Administering prophylactic antibiotics to all women at the time of vacuum aspiration helps reduce their risk of infection. If prophylactic antibiotics are not available, however, vacuum aspiration should still be performed. For women with signs and symptoms of infection, therapeutic antibiotics to treat the infection should be given immediately and the procedure can still be performed. If women presenting for postabortion care are routinely screened for reproductive tract infections,
they do not have to wait for laboratory results before having a procedure. For recommended doses, see Appendix 2.4: Provision of Antibiotics.

For uterine evacuation with misoprostol, prophylactic antibiotics are not recommended. For women with signs and symptoms of infection, therapeutic antibiotics to treat the infection should be given immediately. (Please see the Medical Management of PAC module.)

5.0 Identifying types of miscarriage/abortion

During the history and physical exam, providers should be evaluating whether a woman has a threatened miscarriage, missed miscarriage, incomplete or complete miscarriage/abortion because the management of each of these conditions differs. When a woman presents with an incomplete miscarriage/abortion the management is the same no matter the cause, although women with a history of unsafe abortion are more likely to suffer complications that need treatment.

A woman may present at a clinic in one of the following stages of the miscarriage/abortion process:

- **Threatened miscarriage/abortion**: vaginal bleeding in a woman with a viable intrauterine pregnancy that may or may not continue.
  - Presents with light vaginal bleeding
  - Cramping and/or lower abdominal pain may be present
  - Cervical os: closed
  - Uterine size: equal to menstrual age
  - Intra-uterine gestational sac, fetal pole and fetal cardiac activity seen on ultrasound scan (USS) if used.

- **Inevitable miscarriage/abortion**: miscarriage is imminent or in the process of happening
  - Bleeding becomes heavy with cramping lower abdominal pain
  - Cervical os: open with tissue at os or inside the uterine cavity
  - Uterine size: equal to menstrual age
  - Intra-uterine gestational sac seen on USS if used. Fetal pole and fetal cardiac activity might or might not be seen on USS. However, USS is not required for routine diagnosis.

- **Incomplete miscarriage/abortion**: An abortion—whether spontaneous or induced—in which some pregnancy tissue passes out of the uterus but some remains.
  - Light to heavy bleeding
  - Cramping/pain
  - Open cervix
  - May see tissue at the cervical os
  - Uterine size corresponds to or is smaller than period of amenorrhoea
- History of expulsion of products of conception is present

USG: Heterogenous tissue with or without a gestational sac with distorted endometrial midline echo on USS if used. However, USS is not required for routine diagnosis.

- **Uncomplicated complete miscarriage/abortion**: a miscarriage/abortion in which all of the pregnancy tissue has passed.
  - History of expulsion of POC present
  - After expulsion of tissue per vagina
  - Little or no more vaginal bleeding,
  - Cramping and pain can still be present
  - Cervical os closed
  - Uterine size smaller than menstrual date
  - Empty uterus and endometrial thickness of <15 mm on USS if used. However, USS is not required for routine diagnosis.

- **Missed miscarriage/abortion**
  A missed miscarriage is a kind of miscarriage; the pregnancy ends, but the POC/tissue remains in the uterus.
  - May be asymptomatic
  - Uterus size: smaller than menstrual age
  - Cervical os: closed
  - Is diagnosed by USS - fetal pole with crown – rump length (CRL) >6 mm with no fetal heart beat or if CRL ≤ 6 mm with no change on a rescan taken 7 days later.

Missed miscarriage could be due to the following conditions:
  - Blighted ovum or anembryonic pregnancy
    - May be asymptomatic
    - Is diagnosed by USS - Gestational sac diameter more than 20 mm with no fetal pole or yolk sac.

### 5.1 Other causes of bleeding in early pregnancy

Some women may have pregnancy-related or gynecologic complications such as molar pregnancy, ectopic pregnancy or uterine abnormalities that require specific clinical consideration and management. These conditions are often diagnosed during the clinical assessment and can managed accordingly.

**Exclusion of ectopic pregnancy**

All women presenting for postabortion care should be evaluated for the possibility of ectopic pregnancy. Neither vacuum aspiration nor misoprostol will end an ectopic pregnancy. For
postabortion care, suspect ectopic pregnancy in a woman who presents with ongoing bleeding and abdominal pain even if she has had a previous uterine evacuation procedure.

**Symptoms and Signs**

- Persistent vaginal bleeding and pelvic pain;
- Minimal vaginal bleeding after taking medications for abortion;
- Uterine size smaller than expected;
- Sudden, intense and persistent lower abdominal pain or cramping, initially one-sided then generalized;
- Palpable adnexal mass;
- Fainting, shoulder pain, rapid heartbeat or lightheadedness due to ruptured ectopic with internal bleeding.

Providers should screen women for risk factors of ectopic pregnancy during the history and physical examination. A screening checklist should include relevant history, such as a history of previous ectopic pregnancy, tubal ligation, tubal surgery or an IUCD in place. The screening checklist should also include signs and symptoms of ectopic pregnancy, such as sudden onset of severe abdominal pain with slight bleeding and marked pallor out of proportion to the amount of bleeding per vagina, tender abdomen with signs of free fluid.

<table>
<thead>
<tr>
<th>Table 2-1: Risk factors for ectopic pregnancy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risk factors for ectopic pregnancy</td>
</tr>
<tr>
<td>---------------------------------------------</td>
</tr>
<tr>
<td>Previous ectopic pregnancy</td>
</tr>
<tr>
<td>History of tubal surgery including sterilization</td>
</tr>
<tr>
<td>Presence of intrauterine device</td>
</tr>
</tbody>
</table>

Tenderness in the pelvis with or without adnexal mass may be felt on bimanual examination. However, vaginal examination should be performed with extra caution and only where there are facilities for immediate laparotomy if ectopic pregnancy is suspected because it could easily rupture during examination. Although UCG is positive, an empty uterus with or without adnexal mass and with or without free fluid can be found on ultrasound examination.

*Women with suspected ectopic pregnancy should be referred to higher level care after giving emergency care.*
Management

An ectopic pregnancy is a gynecologic emergency that can be life-threatening. Early diagnosis and treatment of ectopic pregnancy can save women’s lives and help preserve their fertility.

- A ruptured ectopic pregnancy requires immediate surgical intervention;
- As soon as possible, treat a woman with a suspected ectopic pregnancy or transfer to a facility that can confirm the diagnosis and begin treatment.

Exclusion of Hydatidiform mole

The health care provider should consider Hydatidiform mole if there is profuse vaginal bleeding with or without passage of vesicles. The uterus may be larger than the stated period of amenorrhea. On ultrasound examination, vesicles or a “snowstorm” appearance can be seen. Diagnosis of a molar pregnancy may also be made upon examination of uterine contents following vacuum aspiration; making inspection of uterine contents following aspiration a critical step.

6.0 Diagnosis, management and referral of women with miscarriage-abortion and complications

6.1 Diagnosis

The diagnosis should consider both the types of miscarriage-abortion (see section 5.0) and the presenting clinical conditions to guide the management of women with miscarriage-abortion complications. Five main clinical conditions can be categorized as follows:

1. Light-to-moderate vaginal bleeding with no other complications
2. Severe vaginal bleeding
3. Infection/sepsis
   - Fever with or without chills
   - Foul smelling vaginal discharge
   - Pain and tenderness of the uterus, in the supra-pubic area and/or abdomen
   - Elevated white blood cell count
4. Shock
   - Low blood pressure (Systolic BP <90mm Hg)
   - Rapid pulse
   - Pallor or cold extremities
   - Decreased capillary refill
   - Dizziness or inability to stand
   - Difficulty in breathing
   - Impaired consciousness, lethargy, agitation, confusion
   - Low urine output (<30 ml per hour)
5. Intra-abdominal injury
- Distended abdomen or hard and rigid abdomen with guarding
- Tenderness and rebound tenderness
- Tender uterus
- Signs of free fluid
- Liver dullness: obliterated
- Absent bowel sounds
- Gas under diaphragm on X-ray of abdomen

6.2 Management
Management depends on the type of miscarriage-abortion, clinical conditions, the size of uterus, medical eligibility, availability of equipment and supplies, and a woman's preference. Options include surgical management (vacuum aspiration), medical management or expectant management.
- Informed consent should be obtained whatever treatment option is desired
- Prophylactic antibiotics are recommended for uterine vacuum aspiration (Appendix 2.4)
- For uterine vacuum aspiration, providers should inspect the evacuated uterine contents to ensure completed miscarriage-abortion or aid in diagnosing ectopic pregnancy, molar pregnancy or infection.
- Women who present for uterine evacuation, medical or vacuum aspiration, should be offered all pain management options and provided these services without delay.

(See Modules 3, 7 and 8 for more information about each uterine evacuation method and pain management, and Module 4 for informed consent and counseling.)

Management of light-to-moderate vaginal bleeding with no other complications

Determine the type of miscarriage-abortion and manage according to tables 2-2 and 2-3 below.

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>Treatment options</th>
</tr>
</thead>
</table>
| Threatened miscarriage-abortion | • Reassurance
|                               | • Expectant management                                |
|                               | • If continued bleeding, further clinical assessment  |
### Table 2-2: Diagnosis and treatment options

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>Treatment options</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inevitable miscarriage/abortion</td>
<td>• Depending on the clinical condition and the woman’s preference, she may be offered expectant, surgical (vacuum aspiration) or medical management</td>
</tr>
<tr>
<td>Incomplete miscarriage/abortion</td>
<td>• Antibiotics if indicated</td>
</tr>
<tr>
<td></td>
<td>• Pain management</td>
</tr>
<tr>
<td>Missed miscarriage/abortion</td>
<td>• Depending on the clinical condition and the woman’s preference, she may be offered expectant management, or medical management or vacuum aspiration</td>
</tr>
<tr>
<td>Complete miscarriage/abortion</td>
<td>• Expectant management</td>
</tr>
<tr>
<td></td>
<td>• Antibiotics if indicated</td>
</tr>
<tr>
<td></td>
<td>• Pain management</td>
</tr>
</tbody>
</table>

### Table 2-3 Management of miscarriage/abortion complications by uterine size

<table>
<thead>
<tr>
<th>Uterine evacuation method</th>
<th>Method description/regimen</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>For uterine size up to 12 weeks gestation</strong></td>
</tr>
<tr>
<td><strong>Expectant management</strong></td>
<td>• Expectant management is an effective and acceptable method to offer women who miscarry. Patient counselling is particularly important for those women with an intact sac who wish to adopt an expectant approach.</td>
</tr>
<tr>
<td><strong>Medical management</strong></td>
<td>• <em>Incomplete miscarriage/abortion</em>: Misoprostol 600mcg orally in a single dose or 400mcg sublingually in a single dose</td>
</tr>
<tr>
<td></td>
<td>• <em>Missed miscarriage/abortion</em>: Misoprostol 600mcg sublingually every three hours for a maximum of 3 doses or 800mcg vaginally in a single dose</td>
</tr>
</tbody>
</table>
**Uterine aspiration**

- Vacuum aspiration using a manual or electric vacuum aspirator
- Where vacuum aspiration is not available, dilatation and curettage (D&C) or evacuation and curettage (E&C) is to be used with care. It should be replaced with vacuum aspiration, to improve the safety. Advantages of MVA over D&C include decreased blood loss, less pain, shorter duration of procedure.

**For uterine size greater than 12 weeks gestation**

**Medical management**

Under the supervision of Obstetrician and Gynaecologist

- Treatment for postabortion care, incomplete or missed miscarriage/abortion in the second-trimester, may use the same medication regimens as for recommended second-trimester induced abortion

**Dilatation & Evacuation**

Under the supervision of Obstetrician and Gynaecologist

- Dilatation and evacuation (D&E) is a uterine evacuation method that utilizes a combination of vacuum aspiration with 12-16 mm diameter cannulae and Specialized forceps.
- Specialized training, experience, and equipment are necessary to use this method safely.
- If the cervix is not sufficiently dilated, D&E requires preparation of the cervix using misoprostol.

**Management of severe vaginal bleeding**

Rapid initial assessment and resuscitate according emergency care guidelines. If the patient’s condition is stable or once the patient is stabilized, look for the underlying cause of bleeding promptly.

- If retained POC is the cause:
  - Removal of tissue at os may stop the hemorrhage. Proper surgical evacuation is necessary as soon as possible if facilities are available. If facilities are not available, refer.
- To help stop bleeding during the procedure:
  - Injection oxytocin 10 units IM, followed by infusion of oxytocin 10 units in 500 ml IV fluid at 60 drops per minute.
- If vaginal or cervical lacerations are found:
  - Repair under aseptic condition under local anaesthesia or under sedation
  - May need to refer to higher level care

(Please see Appendix 2.5)

**Management of Infection and Sepsis**
- Septicaemic shock with complications such as DIC, acute renal failure
  - Resuscitate according to guidelines for resuscitation of shock and refer
- Therapeutic antibiotics
  - Stat dose parenteral broad spectrum antibiotics should be given before referral (Ampicillin IM 1G, Gentamicin IM 80 mg and Metronidazole 500 mg p.o. at Health Centre, before referral. At Township or Station Hospitals: Ceftriaxone IV 1 G and Metronidazole IV 500 mg).
- Removal of septic foci by surgical method – evacuation of retained products of conception (ERPC), posterior colpotomy, laparotomy and drainage of pelvic abscess may be necessary and refer to higher level care if facilities are not available.

(Please see Appendix 2.6)

**Management of shock**

(Please see section 2.0. and Appendix 2.2.)

**Management of intra-abdominal injury**

- Therapeutic antibiotics: Parenteral broad spectrum antibiotics
- Refer for further management; such as emergency laparotomy for intra-abdominal abscess and POD puncture for drainage for pus in the pelvis. Hysterectomy may be required if the uterus is perforated or infected. Resection and anastomosis may be required if there is injury to the bowels.
- Management of septicaemia and associated complications such as acute renal failure and DIC may be required.

(Please see Appendix 2.7)

### 6.3 Referral

If a woman has any of the health conditions listed in table 2-4, uterine evacuation provision may require a higher degree of clinical judgment, skill and monitoring. A uterine evacuation procedure may need to be modified to suit the health needs of the woman. Referral to a higher-level facility may also be appropriate.

<table>
<thead>
<tr>
<th>Health Condition</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hypertension</td>
<td>- Methylergometrines should not be used in women with hypertension</td>
</tr>
</tbody>
</table>
| Seizure disorder       | - The woman should take her usual dose of anti-seizure medication on the day of the uterine evacuation procedure and resume her medication as soon as possible. She may receive sedation with benzodiazepines and other pain management measures before performing the procedure.  
  - Because some anti-epileptic drugs interact with hormonal contraception, contraceptive options should be carefully reviewed for medical eligibility. |
<table>
<thead>
<tr>
<th>Anemia</th>
<th>• If hematocrit or hemoglobin is very low, be prepared to manage bleeding and treat appropriately.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blood-clotting disorders</td>
<td>• If the woman has an active clotting disorder, proceed with caution.</td>
</tr>
<tr>
<td></td>
<td>• Treatment in a higher-level facility may be appropriate.</td>
</tr>
<tr>
<td>Diabetes</td>
<td>• No changes in diet or medications are recommended for vacuum aspiration with local anesthesia.</td>
</tr>
<tr>
<td></td>
<td>• High blood glucose levels are preferable to low blood glucose levels at the time of surgical methods for PAC.</td>
</tr>
<tr>
<td>Heart disease</td>
<td>• If symptomatic or severe disease, surgical methods may be performed in an operating room and monitored with the assistance of an anesthetist.</td>
</tr>
<tr>
<td>Asthma</td>
<td>• Women with mild or well controlled asthma may have a routine uterine evacuation with surgical or medical methods.</td>
</tr>
<tr>
<td></td>
<td>• Women with an acute asthma attack or poorly controlled asthma may need to have delayed care until asthma is under control.</td>
</tr>
<tr>
<td></td>
<td>• Medical methods are safe for use in women with asthma.</td>
</tr>
<tr>
<td>Suspected ectopic pregnancy</td>
<td>• Evaluate and treat or refer according to local protocol.</td>
</tr>
<tr>
<td></td>
<td>• Ectopic pregnancy is a life-threatening emergency that requires treatment.</td>
</tr>
<tr>
<td>Cervical stenosis</td>
<td>• Consider performing surgical methods under ultrasound guidance, using an agent such as misoprostol to prepare the cervix prior to procedure.</td>
</tr>
<tr>
<td></td>
<td>• Medical methods may be offered.</td>
</tr>
<tr>
<td>Alcohol or drug abuse</td>
<td>• Women may require larger doses of medication for pain management and sedation due to tolerance.</td>
</tr>
</tbody>
</table>

7.0 Postabortion care and services at different levels of the health care system

Care for the women experiencing PAC starts at the community level and leads to her contact with the formal health system. Table (2-5) summarizes the care provided at different levels.

| Table 2-5 Postabortion care provided at different levels of the health care system |
|----------------------------------------|-------------------------------------------------------------------------------------|
| **Level**     | **Care provider**                      | **Care provided**                                                                 |
| Community     | Community health workers               | Recognition of symptoms of miscarriage/abortion                                  |
|              |                                       | Timely referral to formal health care system                                      |

Clinical Assessment and Management of Miscarriage/Abortions and Complications
<table>
<thead>
<tr>
<th>Level</th>
<th>Care provider</th>
<th>Care provided</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary care level</td>
<td>Midwives/nurses, Lady Health visitors</td>
<td>Rapid initial assessment</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Emergency care and referral</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Resuscitation if in shock (including intravenous fluid replacement</td>
</tr>
<tr>
<td></td>
<td></td>
<td>– Ringer Lactate, Normal saline</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Oxytocics - Injection oxytocin 10 units IM</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Antibiotic therapy if sepsis present</td>
</tr>
<tr>
<td>Station Hospital</td>
<td>Non-specialist Doctors</td>
<td>Emergency care</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Evacuation of retained products of conception (Surgical management/MVA or</td>
</tr>
<tr>
<td></td>
<td></td>
<td>medical management)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Pain management</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Referral if severe complications present</td>
</tr>
<tr>
<td>First referral Township</td>
<td>Non-specialist Doctors</td>
<td>Comprehensive emergency care:</td>
</tr>
<tr>
<td>Hospital</td>
<td></td>
<td>Emergency care</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Blood cross match and blood transfusion if necessary</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Evacuation of retained products of conception (Surgical management/MVA or</td>
</tr>
<tr>
<td></td>
<td></td>
<td>medical management)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Pain management</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Laparotomy and surgery if facilities are available</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Diagnosis and referral for severe complications – sepsicaemia, peritonitis,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>renal failure</td>
</tr>
<tr>
<td>Second referral</td>
<td>Specialist (Obstetrician and Gynaecologist)</td>
<td>Comprehensive care</td>
</tr>
<tr>
<td>District Hospital and above</td>
<td></td>
<td>- Blood transfusion</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Surgery</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Treatment of sepsicaemia, sepsicaemic shock, with</td>
</tr>
<tr>
<td></td>
<td></td>
<td>complications such as acute renal failure, Disseminated</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Intravascular Coagulation (DIC) or multi-organ failure</td>
</tr>
</tbody>
</table>

**8.0 Summary**

- Providers should do a rapid initial assessment for shock or other severe complications that need urgent treatment.
- Most women presenting for postabortion care are clinically stable with light to moderate bleeding. Clinical assessment can assist in the diagnosis of the type of miscarriage-abortion and determine the management plan.
- Women may present for postabortion care with complications. In settings where unsafe abortion is common, complications may be multiple and severe.
• During the clinical assessment, the provider should meet with the woman in private to counsel her and her husband and family, if desired, and perform an examination.

• Clinical assessment for postabortion care should include taking a client history, conducting a physical examination, and, if needed, collection of specimens and ordering of any laboratory tests.

• Client history helps determine the woman’s gestational age and uterine size, her eligibility for vacuum aspiration, medical management or expectant management, and provides information to help the provider meet her other reproductive health needs.

• The physical examination involves assessing the women’s general health and performing a pelvic examination.

• Laboratory testing and ultrasound are not required for routine postabortion care services but may be helpful if a woman’s pregnancy status and dating are unclear.

• Where possible, prophylactic antibiotics should be administered prior to vacuum aspiration to help reduce women’s risk of post-procedure infections. Prophylactic antibiotics are not needed for misoprostol for postabortion care. Lack of access to antibiotics should not be a barrier to postabortion care.

• While a woman is being stabilized (when appropriate), underlying complications must be diagnosed and managed to reverse the clinical course.

• Referral systems need to be in place if a facility does not have the capacity to manage severe complications.

References


Clinical Management of Miscarriage or Complications of Abortion (Ref-WHO/FHS/MSM/94.1)

Appendix 2.1
Chart 1: Clinical Assessment

**Presentation**
A woman of reproductive age after a period of amenorrhoea, with:
- excessive vaginal bleeding
- cramping or lower abdominal pain
- fever
- signs of shock

**Initial step**
Assess for shock
- Rapid, weak pulse
- Low blood pressure
- Pale and sweaty
- Rapid breathing
- Anxious, confused or unconscious

**If there are signs of shock**
Immediate action is required

**Complete clinical assessment**
Review history:
- Length of amenorrhoea/last menstrual period, during and amount of bleeding duration and severity of cramping, abdominal pain, shoulder pain, drug allergies

Physical examination:
- Vital signs, heart, lungs, abdomen, extremities
- Indication of systemic problem (shock, sepsis etc.)

Other:
- Remove any visible products of conception from the cervical os

**Shock**
**Early**
- Pulse >110 minutes
- BP <90mmHg systolic
- Pale and sweaty skin
- Breathing >30 minutes
- Awake
- Anxious
- Lungs clear
- Haematocrit>26%
- Urine output >30mL/h
See Chart 2

**Later**
- Weak pulse very rapid
- BP very low
- Pale and cold skin
- Breathing rapid
- Unconscious
- Confused
- Pulmonary oedema
- Haematocrit<26%
- Urine output <30mL/h

**Intra-abdominal injury**
- Abdominal pain, cramping
- Distended abdomen
- Decreased bowel sounds
- Tense, hard tender abdomen, rebound tenderness
- Nausea, vomiting
- Shoulder tip pain
- Fever
See Chart 5

**Infection and sepsis**
- Chills, fever, sweats
- Foul-smelling vaginal discharge
- History of interference with the pregnancy
- Abdominal pain
- Intrauterine device in place?
- Prolonged bleeding
- Influenza like symptoms
See Chart 4

**Severe vaginal bleeding**
- Heavy bright red vaginal bleeding with or without clots, blood soaked pads, towels, clothing
- Pallor
See Chart 3
Appendix 2.2
Chart 2: Shock

**Shock**
- Early
  - Pulse >110/minute
  - BP <90mmHg systolic
  - Pale and sweaty skin
  - Breathing >30/minute
  - Awake
  - Anxious
  - Lungs clear
  - Haematocrit>26%
  - Urine output >=30mL/h
- Later
  - Weak pulse, very rapid
  - BP very low
  - Pale and cold skin
  - Breathing rapid
  - Unconscious
  - Confused
  - Pulmonary oedema
  - Haematocrit<26%
  - Urine output <30mL/h

**Initial treatment**
- Make sure airway is open
- Check vital signs, pulse, blood pressure, breathing
- Secure IV line: Ringer’s lactate or isotonic solution 1L for 15-20 minutes (16-18 gauge needle). It may take 1-3L to stabilize a patient in shock
- Turn body and head to side, raise legs (however, if this causes difficulty in breathing lower legs and raise head)
- No fluids by mouth
- Give oxygen 6-8L/minute (if available)
- Remove any visible products of conception from the cervical os
- **Blood transfusion**: if haemoglobin<5g/dL, or haematocrit<15%
- Monitor amount of fluids/blood given — use a chart
- Monitor urine output — colour and quantity
- IV antibiotics — in case of infection
- No medications by mouth
- Laboratory work is helpful but must not cause any delay in treatment. Request haematocrit, blood group, pre-transfusion (type and cross-match), platelet count and, if available, blood electrolytes, pH, urea and/or creatinine

**Assess response to fluids after 20-30 minutes**

**Signs of stabilization**
- Increasing systolic BP, >=100 mmHg
- Heart rate < 90/minute
- Conscious, reduced confusion/anxiety
- Skin colour improves
- Respiration rate <=30 minute
- Urine output >100mL/4h

**If stable**
- Gradually shut off oxygen, if this causes worsening
- Turn oxygen back on 6-8L/minute
- Clinical assessment
- Uterine evacuation

**If not stable**
- Continue monitoring oxygen and IV fluids
- Reassess the need of antibiotics
- Treat underlying causes of shock

**Assess after two hours**

**Sign of stabilization**
- Increasing systolic BP, > 100 mmHg
- Heart rate < 90/minute
- Conscious, reduced confusion/anxiety
- Skin colour improves
- Respiration rate <=30 minute
- Urine output >100mL/4h
- Influenza like symptoms

**If not stable**
- Refer to secondary or tertiary hospital
Appendix 2.3: Sample client intake form

Client's Name ______________________ Date __________ Age ______

Abortion

Indication ________________________________________________________

Obstetrical history: G________ P________

# of vaginal deliveries ______ # of cesarean sections ______ previous ectopic pregnancy? __Yes __No

History of tubal surgery including sterilization? __Yes __No
Current use of an intrauterine device (IUD)? __Yes __No

Any previous complications?

Medical History:

<table>
<thead>
<tr>
<th>Body System</th>
<th>Check (✓) if yes</th>
<th>Diagnosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respiratory (e.g. asthma)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cardiovascular (e.g. hypertension)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gastrointestinal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Endocrine and Metabolic (e.g. diabetes)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Genitourinary (other than pregnancies or sterilization)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neurologic (e.g. seizure disorder)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Psychiatric</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hematologic (e.g. bleeding disorders and/or anemia)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Allergies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Surgeries (other than cesarean)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Physical Exam:
BP ___________ Pulse ___________ Temp ___________

<table>
<thead>
<tr>
<th>Heart:</th>
<th>Bimanual Exam:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lungs:</td>
<td>Other:</td>
</tr>
<tr>
<td>Abdomen:</td>
<td></td>
</tr>
</tbody>
</table>
Dating:
First day of last menstrual period
Uterine size by bimanual exam
****Today's Estimated Gestational Age****

Optional Testing:
These tests are not required to offer postabortion care but may be performed as indicated:
Hb/Hct
Blood type
Rh-immunoglobulin given (if indicated) _Yes _No
Pregnancy test and date
HIV testing offered _Yes _No Accepted? _Yes _No
Other reproductive health testing? (e.g., pap smear)
Ultrasound Date
Gestational Age
Today's gestational age by ultrasound
Planned Contraception

For Medical Methods:
Regimen prescribed:
Instructions for administration given: _Yes
Pain management plan:
Follow-up visit (if necessary): Date Time

For Vacuum Aspiration:
Antibiotics given: _Yes Type
Pain management plan:
Follow-up visit (if necessary) Date Time
Appendix 2.4: Provision of antibiotics

Prophylactic antibiotics

Vacuum aspiration
Routine prophylactic antibiotics are recommended for treatment of incomplete miscarriage/abortion or missed miscarriage with vacuum aspiration. Women with signs or symptoms of infection should be given therapeutic antibiotics. Scant literature exists supporting routine antibiotics during vacuum aspiration for incomplete miscarriage/abortion or missed miscarriage. However, routine prophylactic antibiotics are recommended before vacuum aspiration for induced abortion, and therefore in the absence of evidence, it seems prudent to administer prophylactic antibiotics for vacuum aspiration when used for postabortion care.

The ideal medication, dose and timing for prophylactic antibiotics before vacuum aspiration has not been established but a single dose of nitroimidazoles, tetracyclines or penicillins have all been shown to be effective. Commonly used regimens include:

- Doxycycline 200-500mg orally prior to the procedure
- Metronidazole 400mg orally every 4 hours x 3 doses

Misoprostol for PAC
Prophylactic antibiotics prior to uterine evacuation with misoprostol are not recommended. Therapeutic antibiotics should be given to women with signs and symptoms of infection.

Therapeutic antibiotics
Therapeutic antibiotics should be administered to all women who are suspected of or who have been diagnosed with an infection. If possible, women at high risk should be screened and treated for sexually transmitted infections in addition to receiving prophylactic antibiotics. Women who are screened for sexually transmitted infections do not need to wait for results before having uterine evacuation. If the testing is positive, they may be treated after the uterine evacuation. Women who have signs and symptoms of active infection when they present for postabortion care should be treated for the infection and provided uterine evacuation services without delay.
Appendix 2.5
Chart 3: Management of severe vaginal bleeding

**Presentation**
- Heavy bright red blood from vagina, with or without clots
- Blood soaked pads, towels or clothing
- Palor
- Dizziness
- Syncope
- Hypotension

**Initial treatment**
- Make sure airway is open
- Check vital signs (pulse, blood pressure, breathing)
- Secure IV line
- Keep the patient warm
- Raise the patient's legs
- Control bleeding (if possible by use of oxytocics, uterine massage, emptying the uterus by aspiration, suturing of tears or bimanual internal/external compression)
- Oxygen 6-8L/minute (if available)
- IV Ringer's lactate or isotonic solution 1L for 15-20 minutes (16-18 gauge needle). It may take 1-3L to stabilize a patient who has lost a lot of blood
- Do not give fluids by mouth
- Blood transfusion if haemoglobin<5g/dL or haematocrit<15%
- Monitor amount of fluids/blood given – use a chart
- Monitor urine output - dark colour indicates reduced output. Increase is a good sign
- If infection is present, give antibiotics IV or IM
- No medications by mouth
- If needed, give tetanus toxoid and tetanus antitoxin
- Laboratory work is helpful but must not cause any delay in treatment. Request haemoglobin, haematocrit, blood group pre-transfusion (type and cross-match), platelet count and, if available, blood electrolytes, pH, urea and/or creatinine. A drop in haemoglobin and haematocrit can lag 6-8 hours behind the actual blood loss.

**Signs of stabilization**
- BP, systolic >100mmHg
- Heart rate <90/minute
- Skin colour improves
- Urine output >100mL/4h

**Suspicion of intra-abdominal injury**
- Rigid abdomen, acute abdominal pain
- Immediate assessment is required
- Emergency laparotomy may be indicated
  See Chart 5

**Visible cervical or vaginal laceration**
- Give IV or IM analgesics for pain
- Repair laceration

**Incomplete abortion**
- Cervix open
- Uterine size is smaller or dates of last menstrual period
- Continue monitoring oxygen, IV fluids
- Determine uterine size at presentation

**Evidence of uterine perforation**
- Instrument extends beyond uterus
- Fat or bowel in specimen
- Management depends on whether or not evacuation is complete. If not, evacuate
- Continue IV fluids

**Evacuate uterus**
- \( \leq 12 \) weeks: Manual vacuum aspiration or dilatation and curettage
- \( >12 \) weeks: Misoprostol or dilatation and curettage

**If no IV facilities**
- Pain control
- Uterine evacuation
- Uterine massage
- Prepare for referral
Appendix 2.6
Chart 4: Management of infection and sepsis

Presentation
- Chills, high fever, sweats, influenza-like symptoms
- Mildly low blood pressure
- Foul-smelling or muco-purulent vaginal discharge
- Abdominal/pelvic pain, distended abdomen
- Rebound tenderness
- Sub-involvement of the uterus
- Uterine and cervical motion tenderness
- Shoulder pain
- Prolonged vaginal bleeding

Initial assessment of risk for septic shock
- Length of gestation
- Check vital signs
- Check for signs of pelvic infection
- Foreign materials in vagina
- Pur in cervix or vagina
- Evidence of local pelvic infection
  - Adnexal tenderness
  - Uterine tenderness
  - Cervical motion tenderness
  - Lower abdominal tenderness
  - Foul odour to any blood or secretions, urine, faeces

Low risk of septic shock
- Mild/moderate fever <38.5°C
- Vital signs stable
- No evidence of intra-abdominal injury

Initial treatment
- Make sure airway is open
- Check vital signs (pulse, blood pressure, breathing)
- IV fluids: Ringer’s lactate or isotonic solution 1L for 15-20 minutes
- Do not give fluids by mouth
- Antibiotics (IV preferred)
- Tetanus toxoid
- Analgesics IM

High risk of septic shock
- Fever >38.5°C or <36.5°C
- Evidence of intra-abdominal injury (distended abdomen, rebound tenderness)
- Nausea and vomiting
- Low blood pressure
- Anxiety, confusion, pallor, rapid breathing, weak pulse
- Unconscious

Initial treatment
- Make sure airway is open
- Check vital signs (pulse, blood pressure, breathing)
- Secure IV line: Ringer’s lactate or isotonic solution 1L for 15-20 minutes (16-18 gauge needle). It may take 1-3L to stabilize a patient in shock
- Turn body and head to the side, raise legs, (however, if this causes difficulty in breathing, lower legs and raise head)
- No fluids by mouth
- Give oxygen 6-8L/minute (if available)
- Remove any visible products of conception from the cervical os
- Blood transfusion: if haemoglobin <5g/dL or haematocrit <15%
- Monitor amount of fluids/blood given – use a chart
- Monitor urine output – colour and quantity
- IV antibiotics – in case of infection
- No medications by mouth
- Abdominal X-ray – to detect uterine or bowel perforation
- Laboratory work is helpful but must not cause any delay in treatment. If the patient has lost a lot of blood, assess haemoglobin, haematocrit, blood group, pre-transfusion (type and cross-match), complete blood count to assess anaemia and infection and the possibility of disseminated vascular coagulation, and platelet count (if there is disseminated vascular coagulation, the platelet count will be low). If available, ask for blood electrolytes, pH, urea and/or creatinine

If patient is stable
- Continue antibiotics and IV
- Uterine evacuation
- Observe for 48 hours

If signs of disseminated vascular coagulation are present
- Blood does not clot
- Bleeding from venepuncture sites etc
- Fresh blood transfusion
- Refer immediately to tertiary care centre

Signs of gas gangrene of tetanus
- Gas gangrene – X ray shows gas in pelvis
- Tetanus: painful muscle contractions, generalized spasms, convulsions
- Refer to tertiary care centre after initial stabilizing efforts + antibiotics and sedation if tetanus

Sign of intra-abdominal injury
- Abdomen rigid
- Rebound tenderness
- X-ray shows GUD
- Obliterated liver dullness
- Continue oxygen, antibiotics and IV fluids
- Emergency laparotomy or refer immediately to tertiary care centre

If signs of shock develop
- Dropping blood pressure
- Fast, weak pulse
- Rapid breathing
- Pallor
- Immediate attention is required

See Chart 5

Clinical Assessment and Management of Miscarriage/Abortions and Complications
Appendix 2.7
Chart 5: Management of intra-abdominal injury

Suspected or confirmed uterine or cervical perforation during manual vacuum aspiration/electric vacuum aspiration/dilatation and curettage

Suspected or confirmed abdominal injury detected post-abortion

Signs of Shock

Early
- Pulse >110/minute
- BP <90mmHg systolic
- Pale and sweaty skin
- Breathing >30/minute
- Awake
- Anxious
- Lungs clear
- Haematocrit >26%
- Urine output >30mL/h

Later
- Weak pulse, very rapid
- BP very low
- Pale and cold skin
- Breathing rapid
- Unconscious
- Confused
- Pulmonary oedema
- Haematocrit <26%
- Urine output <30mL/h

See Chart 2

Is uterus empty?
Verify by gently using a blunt curette

Management of shock
See Chart 2

Transfer to tertiary health care/hospital preferably to obstetrics and gynaecology unit

- IV Ringer's lactate or isotonic solution 1L for 15-20 minutes (16-18 gauge needle)
- Antibiotics IV/IM

- Observe for 24 hours
- Oxytocin 10 unit IM

- Haemorrhage
- Fever
- Severe pain
- Signs of shock

YES

NO

Client can be discharged
Module 3: Uterine Evacuation Methods

Key topics in this module:

- Recommended methods for evacuating the uterus: vacuum aspiration, misoprostol for PAC and expectant management
- Possible risks and side effects, cost and benefits of these methods

1.0 Introduction

Uterine evacuation is the removal of the contents of the uterus. There are three recommended methods for evacuating the uterus in cases of incomplete miscarriage-abortion, with uterine size under 12 weeks:

- Vacuum aspiration (electric or manual)
- Misoprostol for PAC (MPAC)
- Expectant management

Uterine evacuation to remove retained pregnancy tissue is often a life-saving component of postabortion care, so health-care workers who will be treating women with miscarriage or abortion
and its related complications should be clinically competent in performing or facilitating uterine evacuation.

During vacuum aspiration, the contents of the uterus are evacuated through a plastic or metal cannula using suction provided by a handheld, portable aspirator (manual vacuum aspiration) or by an electric pump (electric vacuum aspiration). Vacuum aspiration is an important alternative to and occasional back-up for uterine evacuation with misoprostol. (See below.)

A medical management option for uterine evacuation is to give misoprostol. This is sometimes referred to as misoprostol for postabortion care (MPAC). WHO states that "medical methods of abortion have been proved to be safe and effective." Misoprostol is on WHO’s Model List of Essential Medicines, as well as the Interagency List of Essential Medicines for Reproductive Health, compiled by several of the UN agencies and other international NGOs.

Expectant management is a closely monitored process that allows the woman’s body to expel the uterine contents without any procedure or uterotonic medications. It is only appropriate for women having an uncomplicated miscarriage.

Dilation and curettage (D&C) is a uterine evacuation method that involves dilating the cervix with mechanical dilators or pharmacological agents and using metal curettes to scrape the walls of the uterus. D&C is carried out in the operation theatre under general anaesthesia.

Evacuation and curettage (E&C) - If the cervix is dilated, evacuation of retained products of conception with a ovum/ring forceps followed by curettage with a blunt curette can be done.

Where it is still practised, efforts should be made to replace D&C and E&C with vacuum aspiration, to improve the safety and quality of care for women (WHO, 2012). These methods are not covered in this module. Many different types of health-care professionals can safely perform or assist with uterine evacuation. Pre- or in-service training provides an opportunity for health-care workers to achieve clinical competence in this skill.

Focused on uterine evacuation in the first trimester, this module provides:

- A brief overview of recommended uterine-evacuation methods for uterine size under 12 weeks
- Information on clinical safety and effectiveness, cost, acceptability to women
- Specific risks and side effects associated with each method

This information is also summarized in Appendix A: Recommended PAC treatment options.

2.0 Vacuum aspiration

Vacuum aspiration is considered an essential service by many national and international authorities such as WHO and the International Federation of Gynecology and Obstetrics (FIGO).
Description
Vacuum aspiration is a method by which the contents of the uterus are evacuated through a plastic or metal cannula that is attached to a vacuum source.

- Manual vacuum aspiration (MVA) uses a hand-held, portable aspirator.
- Electric vacuum aspiration (EVA) employs an electric pump.

The level of vacuum provided by the MVA aspirator decreases as the cylinder fills with blood and tissue, but an electric pump provides a constant level of suction.

The procedure involves dilating the woman's cervix if necessary, inserting a cannula through the cervix into the uterine cavity, and attaching the cannula to the vacuum source. The uterine contents are then suctioned out. Depending on the uterine size and amount of tissue, the procedure takes from 3 to 10 minutes to complete.

Clinical safety and effectiveness
Vacuum aspiration is extremely effective and safe, and is successful in 98 to 100 percent of cases for treatment of incomplete miscarriage/abortion. The method results in few complications, especially when performed up to 12 weeks uterine size. Safety and programmatic benefits of vacuum aspiration, compared to D&C and E&C, include:

- Reduced blood loss
- Reduced procedure time
- Reduced risk of major and minor complications
- Reduced pain
- Reduced cost

Because many providers do D&C in an operating theater with heavy sedation or general anesthesia, anesthetic risks are decreased with vacuum aspiration.

Cost
Vacuum aspiration can be much less costly when performed on an outpatient basis. Vacuum aspiration can result in savings to the facility that can then be passed on to the woman.

Acceptability to women
Vacuum aspiration is well-accepted by women, including young women. Because vacuum aspiration is less painful than D&C and E&C, in most cases vacuum aspiration requires lower levels of pain management. Typically a combination of local anesthesia (paracervical block), oral analgesics and verbal reassurance allows women to be awake and aware of what is happening during the procedure but still have adequate pain control. Light sedation may also be added if it is available and desired by the woman. With lower levels of pain medication, postabortion care can be provided in an outpatient setting, which is generally more acceptable to women than a hospital stay.
2.1 Manual vacuum aspiration (MVA)

In an MVA procedure, a hand-held plastic 60cc aspirator providing a vacuum source is attached to a cannula and hand-activated to suction out the uterine contents. To perform the MVA procedure, a cannula of the appropriate size is inserted through the dilated cervix into the uterus. The cannula is attached to a vacuumcharged aspirator, and the vacuum is released by depressing the buttons on the aspirator. The cannula is gently and slowly rotated while it is moved back and forth within the uterus. The aspirator serves as the source of vacuum to pull the products of conception through the cannula into the cylinder.

MVA is safe and effective:
- It can be performed by trained midlevel providers with no difference in complications rates compared to doctors.
- It can be provided in a clinic setting on an outpatient basis, requiring fewer facility resources and reducing cost of care.
- Where instruments can be reused, the cost per procedure can be relatively low.
- MVA creates little noise during the procedure, which some women find preferable.
- It does not require electricity and can be used in settings with intermittent electrical supply.

(Please see the Surgical Management of PAC module for more detailed information on MVA.)

Possible complications

When vacuum aspiration is performed by well-trained providers, complications are rare. However, possible complications include:
- Incomplete evacuation
- Cervical or uterine injury, such as perforation or tearing
- Anesthesia complications
- Infection
- Hemorrhage
- Hematometra

In rare cases, these conditions can result in secondary infertility, other serious injury or death.

WHO, in conjunction with the United Nations Population Fund (UNFPA), the United Nations Children’s Fund (UNICEF), and the World Bank and with endorsement by FIGO and the International Confederation of Midwives (ICM), endorses MVA as an essential technology for uterine evacuation.
2.2 Electric vacuum aspiration (EVA)

EVA uses an electric pump or suction machine attached to a cannula to evacuate the uterine contents. The cannula is inserted into the uterus and then attached to the suction-machine tubing. The thumb valve on the hose is then opened and the machine turned on. The cannula is rotated gently back and forth until the pregnancy is evacuated through the hose and into a glass container at the end of the hose.

- Because the initial cost of an EVA machine is high, it is typically used in centralized settings with high caseloads.
- EVA is less appropriate for settings with intermittent electrical supply.
- EVA has been found acceptable to women, including young women.

3.0 Misoprostol for PAC

Misoprostol can be used to expel the contents of the uterus. It has the effect of softening the cervix and stimulating uterine contractions. It is used for many obstetric and gynecologic indications including labor induction, treatment of incomplete miscarriage-abortion, prevention and treatment of postpartum hemorrhage and cervical preparation.

Clinical safety and effectiveness

Misoprostol for incomplete miscarriage-abortion has average efficacy rates of 91-99 percent reported in the literature, depending on the regimen used and the study. Misoprostol has been used safely for incomplete miscarriage-abortion in many different countries, and shows similar success to vacuum aspiration. It has not been associated with any long-term effects on women’s health. MPAC is not advised in cases where delayed uterine evacuation could add significant risk to the woman. In such cases, vacuum aspiration is the preferred method of treatment.

For missed miscarriage a single dose of misoprostol results in successful uterine evacuation in more than 80 percent of women. Some studies have used repeat doses of misoprostol 800mcg vaginally after 24 or 72 hours with a resulting increase in the complete miscarriage rates. However, it is unclear whether the increase in complete miscarriage is due to the additional prostaglandin dose or the increased time to evaluation. When women are managed expectantly after a single dose of misoprostol, their complete miscarriage rates increase over time. Misoprostol repeated every three hours for a maximum of two more doses achieves similar success rates.

Most women undergoing uterine evacuation with medical management experience some amount of abdominal cramping and bleeding. Other possible side effects, depending on dosage and route of administration, include vomiting, nausea, diarrhea, chills and fever.

Cost

The cost of a uterine evacuation depends on the clinical regimen, the technology, and the cost of providing backup in case reevacuation is needed. Uterine evacuation with misoprostol is considered a low-cost treatment.
Misoprostol is a simple medication that is easy to store (no refrigeration required and a long shelf life) and use in a range of settings, by a range of clinicians. MPAC can stand alone where aspiration services are not feasible, or complement vacuum aspiration where there are existing PAC services. Data from several studies show that in many settings, reorganizing services by reclassifying PAC treatment as an outpatient care procedure substantially reduces the resources used for PAC, along with the cost and average length of women’s stay in health facilities. MPAC can substantially reduce service costs, allowing women to seek treatment for incomplete abortion at the primary care level and thus reducing the caseload at tertiary care facilities.

**Possible complications**

Complications of medical methods are rare. However, possible complications include:

- Incomplete evacuation
- Infection
- Hemorrhage
- Allergic reaction

**Acceptability to women**

In studies reviewing acceptability, more than 90 percent of women have reported being satisfied or very satisfied with misoprostol for their postabortion treatment. A feasibility study in Nigeria showed high acceptability to women among a largely Muslim population in the north. The same study showed that participating clinicians (including doctors, midwives and nurses) also reported a high degree of satisfaction.

Women should be given a choice of method whenever possible and be provided sufficient information to make an informed decision.

(Please see the Medical Management of PACmodule for more information.)

**4.0 Expectant management**

Many women who present with a miscarriage can be successfully managed without any intervention. Allowing this process to follow a natural course, while closely monitoring to ensure that all uterine contents are fully expelled, is known as expectant management.

**Clinical safety and effectiveness**

Success rates for expectant management differ based on the type of miscarriage/abortion and the length of follow-up. Women who present with bleeding and an incomplete miscarriage/abortion have faster resolution and higher success than women with missed miscarriage. (Pleasesee Appendix A: Recommended PAC treatment options.) In addition, the longer a woman waits for follow-up, the higher likelihood she has of success. If a woman waits for 7 to 14 days, approximately 75 to 85 percent of women with an incomplete miscarriage/abortion and 30 to 50 percent of women with missed miscarriage will successfully pass their pregnancy. Over one quarter of women who choose expectant management for miscarriage management will need a procedure to complete the uterine evacuation.

Expectant management is often followed by minimal bleeding as any retained tissue will usually
undergo resorption. Occasionally, the passage of tissue may be associated with heavy bleeding. Expectant management should only be offered in hospitals where women can access 24-hour telephone advice and emergency admission if required.

Cost
There is no cost to women unless they return to the facility in need of a procedure for uterine evacuation or if they experience complications.

Acceptability to women
Satisfaction data have been reported in only a minority of trials and differences appear to be small with the various methods. Women who are managed according to their choice are generally satisfied with their method and express a preference for the same method for future treatment.

Factors that may make expectant management more acceptable to women include the fact that they can use the method at home, that it is private, and that it is a natural process.

<table>
<thead>
<tr>
<th>Importance of counseling for expectant management</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient counseling is particularly important for those women with an intact sac who wish to adopt an expectant approach. It is important to inform women that it might take several weeks to achieve complete miscarriage-abortion and that the overall efficacy rates are lower. Expectant management can be continued as long as the woman is willing and provided there are no signs of infection. For some women, the duration can be as long as 6-8 weeks. After counseling, a woman may wish to consider a medical approach or to commence expectant management with the option of surgical evacuation at a later date if required.</td>
</tr>
<tr>
<td>Access to emergency care if important in case any products of conception are retained and cause complications (i.e., infection or heavy bleeding). Effectiveness varies and vacuum aspiration may still be necessary.</td>
</tr>
</tbody>
</table>

5.0 Other methods: E&C and D&C

Description
MVA and medical management are the methods recommended by the WHO for uterine evacuation and postabortion care services. However, evacuation and curettage and dilatation and curettage may still be in use in some settings so they are described below.

E&C involves evacuation of retained products of conception in women with an open cervix with an ovum/ring forceps followed by curettage with a metal curette. During the procedure the woman is awake and given proper pain management (adequate analgesia). The procedure can be conducted in the delivery/uterine evacuation procedure room.

D&C involves dilating the cervix and using a metal curette to scrape the uterine walls. During the procedure, the woman receives general anesthesia or heavy to light sedation and it is conducted in an operating theatre.

According to the WHO, "Dilatation and curettage (D&C) is an obsolete method of surgical abortion and should be replaced by vacuum aspiration and/or medical methods." A statement by
the International Federation of Gynecology and Obstetrics (FIGO) supports the use of vacuum aspiration or medications over D&C for uterine evacuation.

**Clinical safety and effectiveness**

D&C (and E&C) are associated with increased blood loss, pain and procedure time when compared to vacuum aspiration for uterine evacuation.

**Cost**

D&C is typically performed in an operating theater, under general anesthesia, and involves a hospital stay. All these factors increase the cost of care.

**Acceptability to women**

The higher doses of pain medication typically used with D&C and E&C, including general anesthesia, often necessitate longer and costlier hospital or clinic stays that may be less acceptable to women. The higher risks associated with this method also make it less preferable.

See Appendix B for more information about D&C.

### 6.0 Treatment of second-trimester postabortion complications

For PAC treatment in a woman with a uterus over 13 weeks size, products of conception (POC) may be already partially expelled or still in the uterus. Options for treatment include uterine evacuation with medications or MVA with or without use of specialized forceps. **The management should be under the supervision of an obstetrician/gynaecologist.**

**Uterine evacuation with medications**

- May use the same medical regimens as for recommended second-trimester induced abortion.
- Pain management needs are generally higher than with first trimester PAC.
- Typically, this process is performed while the woman remains in a health care facility by providers who have been trained in these methods.

**MVA with or without use of specialized forceps: Dilatation and Evacuation (D&E)**

- The size and type of incomplete miscarriage/abortion determines if an MVA alone can completely empty the uterus or the use of specialized forceps are needed as well which requires a provider who has been trained in this technique (dilation and evacuation).
- Greater dilation is needed compared to procedures performed at earlier stages of pregnancy. Cervical dilation may already be present but if not, cervical preparation can be achieved using mechanical dilators, medications such as misoprostol, or a combination of both.
- Utilization of larger cannulas (10, 12 or 14) can also aid in complete evacuation.
- Pain management needs are generally higher than with first trimester PAC. Pharmacological pain management, such as light sedation, and occasionally general anesthesia may be needed.
6.0 Summary

- Three recommended methods of first-trimester uterine evacuation are vacuum aspiration, misoprostol for PAC and expectant management.
- Vacuum aspiration for first-trimester uterine evacuation is safe and acceptable, including for young women, and is successful in 98 to 100 percent of cases.
- Misoprostol for incomplete abortion is safe and acceptable, including for young women, and is successful in 91-99 percent of cases.
- Providers need to take the following factors into consideration when determining which uterine evacuation method to use: the woman’s personal preferences; clinical condition; uterine size; availability of equipment, supplies and skilled staff; and currently available scientific and medical evidence.
- E&C and D&C should only be carried out when the recommended, safer methods are not available. If uterine evacuation is not currently being provided, vacuum aspiration and medical methods should be introduced first.

References


Uterine Evacuation Methods


### Appendix A: Recommended PAC treatment options

<table>
<thead>
<tr>
<th>Methods</th>
<th>Expectant Management</th>
<th>Electric Vacuum Aspiration</th>
<th>Manual Vacuum Aspiration</th>
<th>Misoprostol for PAC</th>
</tr>
</thead>
<tbody>
<tr>
<td>How It Works</td>
<td>Allows the uterus to evacuate the products of conception by spontaneous uterine contractions over time without provider intervention</td>
<td>A procedure that uses electric suction instruments inserted into the uterus to remove the products of conception</td>
<td>A procedure that uses manual suction instruments inserted into the uterus to remove the products of conception</td>
<td>Causes contractions that expel remaining products of conception</td>
</tr>
<tr>
<td></td>
<td>Natural process</td>
<td>Uterine size less than or up to 12 weeks from LMP</td>
<td>Uterine size less than or up to 12 weeks from LMP</td>
<td>Uterine size less than or up to 12 weeks from LMP</td>
</tr>
<tr>
<td>Safety</td>
<td>Emergency access to emergency care is important in case any products of conception are retained and cause complications (i.e. infection)</td>
<td>Low risk of infection or injury</td>
<td>Low risk of infection or injury</td>
<td>Referral relationship to a facility with vacuum aspiration must be established</td>
</tr>
<tr>
<td></td>
<td>Low or no cervical dilation</td>
<td>Little or no cervical dilation</td>
<td>Little or no cervical dilation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Low blood loss</td>
<td>Low blood loss</td>
<td>Low blood loss</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Short outpatient stay</td>
<td>Short outpatient stay</td>
<td>Short outpatient stay</td>
<td></td>
</tr>
<tr>
<td>Effectiveness</td>
<td>Effectiveness varies and vacuum aspiration may still be necessary</td>
<td>98-100%</td>
<td>98-100%</td>
<td>91-99% *average is 95%</td>
</tr>
<tr>
<td></td>
<td>Up to 84%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cost Considerations</td>
<td>No cost</td>
<td>Cost effective if done on an outpatient basis under local anesthesia</td>
<td>Cost effective if done on an outpatient basis under local anesthesia</td>
<td>Inexpensive</td>
</tr>
<tr>
<td></td>
<td>EVA machine is expensive – requires constant supply of electricity</td>
<td>MVA instrument is inexpensive</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Appendix A: Recommended PAC Treatment Options (continued)

<table>
<thead>
<tr>
<th>Methods</th>
<th>Expectant Management</th>
<th>Electric Vacuum Aspiration</th>
<th>Manual Vacuum Aspiration</th>
<th>Misoprostol for PAC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accessibility</td>
<td>Women can use this method at home Needs to happen under the supervision of a trained provider (including mid-level)</td>
<td>Can be used in mid-level as well as high level health facilities in clean conditions with proper provider training</td>
<td>Can be used in low-level health care facility, in clean conditions with proper provider training Readily available in most settings</td>
<td>Can be provided in any health facility</td>
</tr>
<tr>
<td>Acceptability to Women</td>
<td>Women can remain awake Private More natural/like miscarriage Need time and patience</td>
<td>Women can remain awake</td>
<td>Women can remain awake Procedure is quiet</td>
<td>Women can remain awake Private More natural/like miscarriage</td>
</tr>
<tr>
<td>Expected effects</td>
<td>Bleeding and cramping</td>
<td>Bleeding and cramping</td>
<td>Bleeding and cramping</td>
<td>Bleeding and cramping</td>
</tr>
<tr>
<td>Side effects</td>
<td></td>
<td></td>
<td></td>
<td>Nausea, vomiting, fever, chills</td>
</tr>
</tbody>
</table>
Appendix B: Dilatation and Curettage (D&C)

The preferred method of evacuation of the uterus is by manual vacuum aspiration. Dilatation and curettage should be used only if manual vacuum aspiration is not available.

- Review for indications
- Review general care principles
- Provide emotional support and encouragement. Give pethidine IM or IV before the procedure or use a paracervical block
- Administer oxytocin 10 units IM before the procedure to make the myometrium firmer and reduce the risk of perforation.
- Perform a bimanual pelvic examination to assess the size and position of the uterus and the condition of the fornices.
- Insert a speculum or vaginal retractor into the vagina.
- Apply antiseptic solution to the vagina and cervix (especially the os)
- Check the cervix for tears or protruding products of conception. If products of conception are present in the vagina or cervix, remove them using ring or sponge forceps.
- Gently grasp the anterior or posterior lip of the cervix with a vulsellum or single-toothed tenaculum
  
  Note: With incomplete abortion, a ring or sponge forceps is preferable, as it is less likely than the tenaculum to tear the cervix with traction and does not require the use of lignocaine for placement.
- If using a tenaculum to grasp the cervix, first inject 1mL of 0.5% lignocaine solution into the anterior or posterior lip of the cervix which has been exposed by the speculum.
- Measure uterine length with uterine sound
- Dilatation is needed only in cases of missed abortion or when some retained products of conception have remained in the uterus for several days:
  - Gently introduce the widest gauge cannula or curette;
  - Use graduated dilators only if the cannula or curette will not pass. Begin with the smallest dilator and end with the largest dilator that ensures adequate dilatation (usually 10-20 mm).
  - Take care not to tear the cervix or to create a false opening.
- Gently pass a uterine sound through the cervix to assess the length and direction of the uterus.
The uterus is very soft in pregnancy and can be easily injured during this procedure.

- Evacuate the contents of the uterus with ring forceps or a large curette. Gently curette the walls of the uterus until a grating sensation is felt.
- Remove the speculum or retractors and perform a bimanual pelvic examination to check the size and firmness of the uterus.
- Examine the evacuated material. Send material for histopathologic examination, if required.

Post-procedure Care

- Give Ibuprofen NSAID by mouth as needed.
- Encourage the woman to eat, drink and walk about as she wishes.
- Offer other health services, if possible, including tetanus prophylaxis, counselling or a family planning method.
- Discharge uncomplicated cases in one to two hours.
- Advise the woman to watch for symptoms and signs requiring immediate attention:
  - prolonged cramping (more than a few days);
  - prolonged bleeding (more than two weeks);
  - bleeding more than normal menstrual bleeding;
  - severe or increased pain;
  - fever, chills or malaise;
  - fainting.

Module 4: Informed Consent, Information and Counseling

Key topics in this module:

- Procedure options and informed consent
- Definition of woman-centered counseling
- Privacy and confidentiality
- Providers’ values and empathy
- Special considerations

1.0 Introduction

A woman’s experience during postabortion care (PAC) is both physical and emotional. Health-care providers should be prepared to offer effective and compassionate interaction, communication, emotional support and, if desired, counseling that focuses on the woman’s needs. This module covers essential information, voluntary informed consent and counseling in a postabortion care setting and how providers can interact and communicate with clients in a respectful, effective manner. It also includes instructions on making appropriate referrals and information on counseling women with special considerations.

From her arrival at the health care centre until her departure, the patient comes into contact with a number of health care workers. Every member of the health care team can contribute to the quality of care women receive by encouraging open, two-way communication, ensuring patient confidentiality,
protecting patient privacy, and otherwise maintaining supportive, respectful patient-provider interactions. Improving these aspects of care is not costly and does not generally require additional staff.

Health care workers must recognize that a woman seeking treatment for incomplete miscarriage-abortion is often under severe emotional stress, in addition to any physical discomfort. A positive relationship between caring health care providers and patients can help ease the anxiety and concern that patients may feel. Positive interactions with all these staff members will facilitate treatment and improve patient satisfaction with the care received.

Effective PAC counseling occurs before, during and after the woman receives medical treatment. Whenever possible, counseling should begin before treatment, as long as the woman’s health is not placed at risk by the delay in treatment and she is able to understand information and make decisions.

2.0 Voluntary informed consent

Informed consent is a process in which a woman gathers the information she needs to make a voluntary choice to undergo a uterine evacuation. To ensure that women are giving informed consent for the uterine evacuation, providers should discuss and confirm that women have understood:

- The benefits and risks of different methods of uterine evacuation
- Consequences of not receiving postabortion care
- Details of the planned procedure, once the method has been determined

The benefits, risks and other information on recommended uterine evacuation methods can be found in the Uterine Evacuation Methods module, Surgical Management of PAC Module, and the Medical Management of PAC module. Appendix A: Recommended PAC treatment options of the Uterine Evacuation Methods module may be helpful to have available to show and discuss with women.

Providers need to explain this information in simple language and ensure that women have understood it. Privacy and confidentiality are critical to the informed consent process. Providers should remain mindful of any circumstances that may limit a woman’s ability to make autonomous decisions, such as:

- Pain, blood loss, or other medical issues
- Pressure from her partner or family members to select a particular method
- Difficulty communicating due to language barriers, or because she is hard of hearing or deaf
- Cognitive disability or mental illness
- Mental immaturity
- A traumatic event (such as violence or an unsafe abortion)

Because young women are often not given adequate information about pregnancy, they may need more information to aid their decision-making and informed consent process. With correct information and support, young people are capable and can provide informed consent for themselves.
3.0 Procedure options

Once a woman has clearly made a decision to receive PAC treatment, the provider will discuss the uterine evacuation procedure options that are available in that facility and appropriate for that woman's clinical condition. The provider should explain the differences between all available methods and help the woman explore which option is best for her. They should discuss the possible benefits, risks and what to expect with each procedure. As long as the different methods are clinically appropriate, providers should refrain from inserting their own method preferences into the discussion and support a woman's decision. After all of the woman's questions about procedure options are answered and she has made her decision about which procedure to have, providers will obtain her consent for the procedure.

Once the woman makes a firm, voluntary decision on her method of treatment, the provider should establish the length of pregnancy and:

- Ensure visual and auditory privacy: Ask in private if she wishes to include a support person and only invite that person to counseling if she desires their presence
- Determine if the woman is capable of listening to and understanding the information.
- Assure the woman that any medical and personal information discussed during counseling is confidential, and make sure that information is not released without the woman's voluntary authorization
- Explain her medical eligibility, uterine evacuation methods and pain medications available in clear, non-technical language
- Permission to treat the woman in the event of a complication or emergency
- Encourage her questions and ensure that she understands the information provided; if she does not, explain it again in a simpler, more understandable way

Providers should ask the woman—or her representative if she is unable to comprehend medical explanations—to give consent for care. Providers should confirm consent before beginning the uterine evacuation.

Providers should make sure the woman knows that she could ovulate almost immediately after uterine evacuation, which could quickly lead to another pregnancy if she resumes sexual intercourse without using a modern contraceptive method. If a woman desires contraception to prevent future pregnancy, the provider can ensure that she receives or is referred for appropriate contraceptive services during her visit. Most facilities can at the very least ensure that women receive an interim contraceptive method and a referral for a long-term contraceptive method before leaving the facility. (See the Postabortion Contraceptive Counseling and Services module for more information.)

Once the woman has chosen, the provider should provide the following information:

- What will be done before during and after the procedure
- What she is likely to experience—for example, cramps or pain
- How long the procedure will take
- Which pain management options she can choose
- What side effects, risks and complications are associated with the method
- What kind of aftercare and follow-up is needed
(Please see Appendix A: PAC treatment options in the Uterine Evacuation Methods module, for a comparison of expectant management, vacuum aspiration and Misoprostol for PAC for uterine size up to 13 weeks.)

4.0 Counseling in the postabortion setting

Counseling is a structured interaction in which a person voluntarily receives emotional support and guidance from a trained person in an environment that is conducive to openly sharing thoughts, feelings and perceptions. Counseling offers an excellent opportunity for providers to determine and address each woman's unique physical and emotional needs.

Effective counseling, characterized by a respectful, empathetic exchange between women and health-care workers, can help the woman make pregnancy and miscarriage and postabortion-related decisions and prepare for a uterine evacuation. Effective counseling may improve women's postabortion experience and outcomes and make them more inclined to trust health-care workers and seek appropriate medical care in the future. Although elements of effective counseling should be present throughout the visit, providers should offer women a formal counseling session if she desires it.

Woman-centered counseling is structured completely around each woman's needs and concerns. A provider can determine a woman's most pressing concerns by asking open-ended questions about what she needs and how she can help and using the woman's responses as the starting point for counseling.

Existing staff members can be trained to provide basic postabortion counseling.

Providers should consider that this may have been a wanted pregnancy.

An effective health care provider will:
- Ask the woman questions to get a sense of how she is feeling emotionally
- Elicit circumstances surrounding the pregnancy that have implications for her clinical care and referrals to other services she might need
- Ensure that the woman receives appropriate answers to her questions and concerns, in language that she understands
- Provide referrals to additional services if necessary
- Help the woman determine who she might go to for social support, if she wants

A health care provider should not:
- Provide information that is not relevant to the woman's particular situation
- Tell the woman what they think is best
- Try to influence attitudes, beliefs and behaviors by persuading or threatening
5.0 Privacy and confidentiality

Women have the right to privacy and confidentiality in health care settings including postabortion care settings. Ideally, all PAC-related counseling should take place in a setting where no one else can see or overhear and in which, communication between the woman and the provider is not shared with other clients, visitors, or staff members not involved in her direct care.

The provider should inform the woman that any medical and personal information discussed during counseling is confidential, and then ensure that this information is not released without the woman’s voluntary authorization.

6.0 Values and empathy

Providers should extend compassion and respect to every woman, regardless of her circumstances. It is important to respect the woman’s needs and to provide care without expressing judgment of the woman, either verbally or non-verbally. In addition, women should be treated with respect regardless of their reason for seeking care, economic status, culture, marital status, family situation, or religion.

Providers should examine their attitudes and assess their potential biases against women who, for example:

- Do not want to be pregnant but do not use contraception
- Undergo multiple abortions
- Present later in pregnancy
- Have multiple children or no children
- Have multiple sexual partners
- Have been sexually assaulted
- Are unmarried
- Have become pregnant while living with HIV
- Have little or no formal education
- Are sexually active at a young age

A woman-centered approach to care means that providers should:

- Identify their personal beliefs and values about postabortion care and other factors such as gender, age and sexuality
- Separate their beliefs and values from those of their clients and focus on their client’s needs
- Show respect to all women, regardless of their age, marital status, reproductive behaviors and decisions
- Treat women with empathy—understanding their feelings and perspectives and communicating this understanding

Values clarification can help providers identify their beliefs and values, explore the consequences of their actions, learn how to separate their values from those of their clients and offer care in a way that shows respect for a woman’s rights and decisions. Clinic managers and clinical mentors can help establish and maintain an environment of sensitivity and respect for women’s needs through a variety of methods, including values clarification and other training, clinical coaching, supportive supervision, feedback from coworkers, anonymous evaluations and client surveys.
7.0 Effective communication

Effective providers remain open and nonjudgmental even when their personal beliefs differ from those of their clients. Providers should practice empathy, the ability to understand another person’s feelings and point of view and to communicate this understanding.

Providers who practice effective communication:
- Stay attentive and focused on the woman and her needs
- Use nonverbal cues to convey interest in and concern for the woman and observe her nonverbal cues
- Ask open-ended questions and use encouraging words to help the woman talk openly
- Let her talk before providing more information
- Follow up with appropriate questions and feedback
- Use words and language that are easily understandable, including for young women
- Are warm and without bias, anger or judgment, including body language

7.1 Active Listening

Active listening involves more than just hearing. A provider who is practicing active listening uses multiple senses to gather relevant information, convey understanding and encourage the woman to talk about her feelings and circumstances. Some elements of active listening are:
- Showing attentiveness by interjecting phrases such as “I see” or “I understand”
- Making encouraging sounds, facial expressions and gestures

7.2 Open-ended questions and reflecting feelings

Open-ended questions cannot be answered with just “yes” or “no.” They begin with “how,” “what,” “when” and “tell me about.” Questions that require more complete answers elicit more information and require full engagement in the conversation. Avoid asking open-ended questions that begin with “why” as this may be perceived as judgmental. Instead, providers should ask open questions without judgment or assumptions. For example, “How are you feeling now that the uterine evacuation is complete?”

7.3 Nonverbal communication

By paying attention to nonverbal cues, a provider can more fully understand a woman’s feelings. Providers should remain observant about differences between a client’s verbal and nonverbal cues.

A provider can use nonverbal communication to show concern for a woman by:
- Facing her or sitting beside her and removing any physical barriers between them such as a desk or counter
- Leaning slightly forward and making appropriate eye contact for the context
• Nodding and using a reassuring tone of voice
• Avoid turning and looking away, repeatedly looking at a watch or clock or using a harsh tone of voice

Providers should remember that nonverbal cues vary from culture to culture, as well as according to age and gender within a given culture.

8.0 Referrals

If a provider is unable to adequately address the woman’s needs, it is best to refer her to other appropriate individuals or services. To facilitate this process:
• Referrals should include accurate, easy-to-follow written or pictorial information. Ask each woman if it is safe for her to receive written referral information.
• Recommend services and facilities that are accessible to the woman, both geographically and financially, and assure her that she can return to this facility if she has trouble accessing the referred resource or it does not meet her needs.
• Track referrals in the logbook where providers can write client’s names, the service to which she was referred and details about follow-up care.

9.0 Closing a counseling session

When closing a counseling session, the provider should:
• Provide a short summary of the key concepts discussed
• Ask the woman if she has any additional questions
• Explain what to expect during the remainder of the clinic visit

10.0 Special considerations

Some clients may have special needs that they are not comfortable mentioning to a provider. Therefore, it is important that providers ask questions to elicit information about each woman’s situation and decision. Providers who are uncomfortable working with certain client populations may be able to obtain additional training to attain greater competency. Alternately, providers can refer women to other providers or agencies who are skilled in providing high-quality services that meet special needs, such as:
• Women with multiple visits for miscarriage/postabortion care
• Women who have experienced violence
• Women living with HIV
• Young women
• Refugees and displaced persons
• Women with advanced gestational age

(Please see Appendix A: Special considerations for more information on this issue.)
11.0 Summary

- To give voluntary informed consent, women must know all their options and their benefits and risks. They must also be able to choose without pressure or coercion.

- Young women are capable of making the decision to seek postabortion care, and may need more information to aid their decision-making and informed consent process.

- Health-care providers should explain the differences between all available uterine evacuation methods and help the woman explore which option is best for her.

- Woman-centered counseling is structured completely around each woman’s needs and concerns, such as those of young women and other special considerations.

- Counseling should be conducted in an area where no one else can see or overhear.

- Information shared by the woman is confidential and should not be released without her voluntary authorization.

- Clients respond best to providers who provide nonjudgmental support, convey empathy and create a safe environment in which the woman is comfortable exploring her feelings.

- Woman-centered counseling includes such techniques as active listening, open-ended questioning, reflecting feelings and attention to nonverbal communication.

- Providers should examine their personal beliefs, values and potential biases so that they do not affect counseling.

- Referral protocols and resource lists that provide simple, accurate, up-to-date information are essential components of an effective referral service.

- Counseling should conclude with summarizing key concepts discussed, what to expect, and ensuring that the woman understood what was discussed and her needs were addressed.

References


Appendix A: Special considerations

This is a summary of the most important information that is relevant to health care providers providing PAC services. (See Appendix C: Special contraceptive counseling considerations in the Postabortion Contraceptive Counseling and Services module for more information on each topic.)

Young women

Providers should make a conscious effort to keep personal beliefs from limiting their ability to give the best care possible to young women.

When a young woman requests postabortion care, she is likely to have carefully considered her options and decisions prior to seeking care. However, young women may want more information on which to base their decision. Because of inadequate or inaccurate information on reproductive health, counseling may take longer for young women than adults. If the young woman must, by law, notify or get consent from a third party, and she is not eligible for any exemption or alternative, providers should explain this obligation and offer to help her talk to the third party.

Stigma around young women’s sexuality, consent laws and policies, and cultural and social conditioning by parents create particular challenges in counseling. Providers who want to offer high-quality counseling should be aware of these particular needs, and also recognize their own underlying attitudes toward young women’s sexuality which may negatively affect service provision. When possible, young women should be offered counseling from a youth peer provider or from a support person of their choice.

Women with multiple visits for postabortion care

If a woman has experienced multiple unwanted pregnancies, the provider can talk with her about why this is occurring. If the reason is that she chooses not to use contraception, some women will not have an explanation as to why they choose this. In some cases, there may be an underlying issue that prevents the woman from adequately protecting herself from unwanted pregnancy, including myths about contraception, coercive sex, abusive sexual relationships or unresolved emotional conflicts. Women with severe emotional issues should be referred to longer-term, professional mental-health services, if available.

Women who have experienced violence

It is likely that providers will encounter women who have experienced sexual violence. Women who have experienced such violence—which includes rape, sexual assault, coercive sex, incest and involuntary sex work—will often experience related health conditions, such as physical injury, sexually transmitted infections (STIs), psychological distress or unplanned pregnancy. Physical or psychological violence during pregnancy may also contribute to miscarriage or the need for postabortion care.

Postabortion care visits may be the only contact that women who have experienced violence have with the health-care system. Providers should develop a standard method for asking all clients about violence in their lives and incorporate those questions into routine counseling. Health workers must be cognizant of their own limitations in assisting women experiencing violence and, whenever possible, refer women to others specialized in addressing these women’s needs.
Special violence-related counseling considerations include:
- An unwanted pregnancy may be the result of rape or incest.
- A miscarriage (spontaneous abortion) could have been caused by physical abuse.
- The pregnancy could have been wanted.
- A woman may face further violence if her miscarriage-abortion or use of contraception is not kept confidential.
- A woman may have been forced or coerced into having an unsafe abortion.

Women living with HIV
Women receiving postabortion care who are HIV-positive need specific information, support, counseling, and medical care. If providers have not undergone extensive HIV training, they should refer HIV-positive women to appropriate services, where available. HIV-positive women should be offered information that can help them better understand their condition and improve their own health, as well as the health of their sexual partners and children.

Women with cognitive and developmental disabilities and/or mental illness
Cognitive and developmental disabilities and mental illness vary widely, and some women will need more assistance than others. Communication with a woman who has a cognitive disability may take some extra time and effort on the provider’s part. The woman may or may not be her own guardian, which can affect her ability to give informed consent. If she is able to make decisions about her own care, the provider should make an extra effort to ensure that the woman clearly understands what she is consenting to and what her choices are. Women with cognitive disabilities may be quick to agree or to answer yes before they fully understand a situation.

Women in refugee and displaced settings
Refugee and displaced women may be dealing with many different emotional stresses related to safety and personal-security issues; institutional, societal and personal violence; displacement from family, culture and home; lack of food; lack of access to comprehensive medical care; and insecurity about the future. Many women have been victims of violence during the initial period of displacement, while many others continue to experience violence in their present location. It is important when counseling refugee and displaced women to let them guide the counseling process. The provider must be sensitive to language differences, and have a native speaker of the woman’s language translate if possible.

Women with advanced gestational age
Women who present at more advanced gestational ages may have faced multiple barriers including not knowing they were pregnant, needing more time to make their decision about seeking care and poor access to health services. Understanding the social and emotional issues that are often a part of PAC treatment at later gestations and providing prompt, sensitive care or referral are an essential part of woman-centered care.
Module 5: Infection Prevention

Key topics in this module:
- Common routes of infection transmission
- Essential elements of infection prevention, including standard precautions
- Management of occupational exposures

1.0 Introduction

Health-care facilities are prime settings for infection transmission because of the presence of numerous types of infectious agents.

- Health-care workers are exposed to infectious agents and contaminated materials as part of their daily work.
- Clients are exposed when they receive health-care services.
- Families and communities may be affected when clients and health-care workers unknowingly carry infections home from the health-care facility.
Most formally trained health-care workers are knowledgeable about infection-prevention techniques. It is the health-care worker's responsibility to take correct and consistent measures to guard against the spread of infection, using appropriate hygiene and infection-prevention techniques and behaviors.

This module addresses the application of infection-prevention principles in postabortion-care settings.

2.0 Infection transmission

Microorganisms are on and within the body, on medical instruments and equipment, and on every surface. Each microorganism has a specific route of transmission from one person to another. A pathogen is any microorganism that can cause infection and lead to disease. Each pathogen requires specific prevention measures, depending on how it is transmitted. This module focuses on preventing infections from bloodborne pathogens that are primarily transmitted through exposure to blood and other body fluids in a health-care setting.

Bacteria, viruses, protozoa, fungi and parasites are examples of pathogens that can be present in blood. Pathogens such as HIV (Human Immunodeficiency Virus), HBV (Hepatitis B Virus), HCV (Hepatitis C Virus) and Ebola can cause infection and disease in humans.

Bloodborne pathogens are:

- Invisible to the naked eye
- Transmitted through blood, secretions, excretions and certain other body fluids
- Able to cause infection when infectious fluid enters the body through a cut, open sore or other opening in the skin or mucous membranes of the eyes, mouth or genitals
- Able to cause disease in humans without noticeable signs or symptoms

In the clinic setting, bloodborne pathogens can spread:

- From client to health-care worker
- From health-care worker to client
- From client to client
- From health-care worker to health-care worker
- From health-care worker or health facility to family and community members

Health-care workers most often risk infection with bloodborne pathogens in two ways:

1. Punctures with contaminated sharp instruments, such as hypodermic needles
2. Contact with blood on non-intact skin such as cuts or sores

Transmission of bloodborne pathogens (especially HIV) from health-care workers to clients is extremely rare. Work assignments should not be based on workers' medical diagnoses, but on their skill and abilities.

3.0 Elements of infection prevention

Infection-prevention protocols are employed broadly to prevent infections regardless of their transmission routes. Health-care workers must use standard precautions, formerly called universal precautions, during contact with all clients and staff, as a person may carry infection without showing any noticeable signs or symptoms. Standard precautions are the proper handling of blood and body
fluids and the use of appropriate prevention techniques with all clients and staff at all times, regardless of their actual or perceived health status.

Using standard precautions minimizes the risk of pathogen transmission from contaminated sharp instruments that can penetrate the skin, and from infected blood or body fluids that can splash into the eyes or other mucous membranes or enter the body through a cut or broken skin.

Standard precautions involve infection-control measures that are designed to block transmission between the person and potentially infectious body fluids. These measures include proper handwashing techniques and wearing barriers such as gowns, gloves, aprons, masks, eyewear and footwear.

Standard precautions should be applied in all situations where health-care workers anticipate contact with:

- Blood
- Bodily fluids
- Secretions and excretions other than perspiration, regardless of whether they contain visible blood
- Non-intact skin
- Mucous membranes

Health-care workers should treat the blood and body fluids of all persons as potential sources of infection, independent of diagnosis or perceived risk. Standard precautions should be followed with all clients and all workers, regardless of their presumed infection status or diagnosis, and there is no reason to treat individuals with known bloodborne diseases differently.

All workers who risk exposure to blood or other body fluids should be vaccinated against HBV to reduce their risk of infection by that virus.

**Essential elements of infection prevention:**
- Handwashing
- Personal protective barriers
- Proper handling and disposal of sharp instruments and items
- Proper handling and processing of instruments and materials
- Aseptic technique
- Environmental cleanliness
- Proper disposal of infectious waste

### 3.1 Handwashing

Hands are the most common vehicle for infection transmission. Handwashing is one of the most essential, yet most neglected, elements of infection prevention in health-care settings. Handwashing should be routine before and after each client contact, and after contact with potentially contaminated items, even if gloves are worn.
• Health-care workers should wash their hands by rubbing them together with clean, flowing water and soap.

• A brush may be used to clean hands thoroughly.

• It is essential to use fresh water because microorganisms can thrive in a container of water used by multiple people.

• When running water is not available by faucet, spigot or pump, one person can pour fresh water from a container, enabling another person to wash.

• Because shared and reused towels can transmit pathogens, it is ideal to use disposable towels or a clean towel each time handwashing occurs.

• Large towels can be cut into smaller towels or hands can be air-dried to conserve resources.

3.2 Use of personal protective barriers

Health-care workers must wear personal protective barriers such as gloves, gowns, aprons, footwear, eyewear, masks or shields to reduce their risk of infection by decreasing the likelihood of their exposure to microorganisms. Appropriate barriers must be worn whenever there is the possibility of contact with blood or other body fluids.

Using gloves properly:

• Always change gloves between client contacts; after contact with a potentially contaminated item; before touching sterile instruments; and between rectal and vaginal examinations.

• Wear gloves when drawing blood or starting an intravenous line.

• Remove gloves and wash hands immediately following a face shields procedure

• Wear gloves (ideally, utility gloves) while cleaning if there is the potential for hand contact with blood or other body fluids.
3.3 Proper handling and disposal of sharp instruments and items

Sharp instruments or items, called sharps, include:

- Hypodermic and suture needles
- Scissors
- Tenacula
- Glass
- Blades

Sharps present a special risk of infection to health-care workers, clients and community members because they can puncture skin and introduce pathogens directly into the bloodstream. Such punctures occur most often when needles are recapped, cleaned, or disposed of inappropriately.

The proper handling and disposal of sharps can significantly reduce this risk:

- Do not carry hypodermic needles.
- Set aside a specific area to keep sharp objects during procedures.
- Announce the presence and passage of any “sharps.”
- Dispose of needles and syringes immediately, in puncture resistant containers (without recapping, removing, cutting or bending them). Locate these containers wherever sharps are used. If syringes must be recapped for repeated use during a procedure, use the “scoop method.” (Please see Appendix A: Sharps container for box assembly instructions.)

3.4 Handling and processing instruments and materials

Microorganisms can live on instruments and materials used during uterine evacuation procedures. Health-care workers must remove microorganisms from contaminated instruments and materials to prevent them from infecting other women during subsequent procedures. The techniques for properly removing microorganisms from instruments are discussed in the Instrument Processing section of the MVA Instruments module.

3.5 Aseptic technique

The three critical components of aseptic technique for surgical procedures are:

- Antiseptic preparation
- No-touch technique
- Properly processed instruments
Antiseptic preparation

During vacuum-aspiration procedures, post-procedure infection can be caused by the introduction of a woman’s resident vaginal flora into her uterus. Therefore, it is critical to remove microorganisms normally present in the vagina and cervix prior to inserting an instrument.

- Ask the woman about any allergic reactions to antiseptics.
- Ensure that the perineal area is clean.
- Using the no-touch technique, the provider should use an antiseptic-soaked sponge to clean the cervical os and, if desired, the vaginal walls. With each new sponge, start at the os and spiral outward. Continue until the os has been completely covered by antiseptic.
- Do not clean the cervix with the same gauze used for cleaning the vagina.
- Povidine-iodine or chlorhexidine may be used for antiseptic solution.
- Saline may be used if antiseptics are not available.

Cervical preparation

No-touch technique

It is possible to introduce pathogens, especially vaginal ones, into the uterus when passing an instrument into the uterine cavity. To avoid introducing pathogens, it is essential to use no-touch technique during surgical procedures and when handling sterile instruments, such as hypodermic needles and cannulae.

- Always handle instruments by the end that does not come into contact with the woman.
- No instrument that enters a woman’s uterus should in contact with a contaminated surface before insertion through her cervix.
- The tenaculum, cannula or dilator tips should not touch the providers’ gloves, the woman’s vaginal walls, or unsterile parts of the instrument area.

Properly processed instruments

All reusable medical instruments must be properly processed between clients. The techniques for properly processing instruments are discussed in the Instrument Processing section of Module 5: MVA Instruments.
3.6 Environmental cleanliness

Because health-care workers can spread infection when touching clinic surfaces and clients, it is important that everything in the clinical setting, including clients, instruments and equipment, be kept clean and dry.

- A chemical that kills microorganisms is called a *germicide*.
- *Antiseptics* are weaker germicides that are used for cleaning the body.
- Strong germicides used for cleaning equipment and processing instruments are called *disinfectants*. Ideally, a disinfectant of 0.5 percent chlorine solution can be used for cleaning rooms and equipment, although it is acceptable to use soap and water.

**Note:** Glutaraldehyde and chlorine are hazardous substances. Use personal protective equipment when mixing. Refer to the manufacturer’s safety instructions to establish safe use. (Please see Appendix B: Mixing instructions to produce 0.5% chlorine solution.)

At the beginning of each clinic session:

- Wipe all horizontal surfaces with a clean cloth, including procedure tables, chairs, trolley tops, lamps and counters.
- Mop floors with a clean mop to remove any dust.

Between clients:

- Clean blood or other body fluids with a 0.5% chlorine solution or other disinfectant. Clean any potentially contaminated surfaces, such as procedure tables and trolley tops, with a clean cloth dampened with a disinfectant cleaning solution.
- Clean visibly soiled areas of the floor, walls or ceiling with a disinfectant cleaning solution.
- Check sharps disposal containers and replace them if they are three-quarters full.
- Remove infectious waste.

At the end of each day:

- Check sharps disposal containers and replace them if they are three-quarters full.
- Remove infectious waste.
- Clean all surfaces with a clean cloth dampened with a disinfectant cleaning solution.
- Mop floors with a disinfectant cleaning solution.
- Wash waste containers with a disinfectant cleaning solution.

3.7 Disposal of infectious waste

Any disposable material that has come in contact with body fluids should be considered infectious waste and disposed of properly. Infectious waste can include:

- Human tissue, such as products of conception (POC)
- Body fluids
- Materials containing blood or body fluids, such as bandages, surgical sponges, hypodermic and suture needles, scalpel blades, blood tubes and pipettes
- Disposable medical instruments

Wherever infectious waste is deposited, it must always be contained and, ideally, incinerated.

Incinerator

All infectious waste must at least be secured and contained. It is unacceptable to store infectious waste in open containers or throw waste into an unsecured open pile, particularly near bodies of water; this exposes the community to infection. Contaminated sharp items should be placed in containers made from material that is not easily perforated, such as heavy cardboard or plastic.

To dispose of infectious waste, including POC:

- Burning solid infectious waste in an incinerator or oil drum is the best option.
- Open burning in a secured area is an acceptable alternative.
- Bury solid infectious waste on-site, as long as it is secured behind a fence or wall away from any water source. Initial depth should be 2 to 5 meters deep. As waste is added, cover it with 10 to 30cm (four to 10 inches) of soil. When the level of waste reaches to within 30 to 50cm of the ground surface, fill the pit with dirt, seal it with concrete if feasible, and dig another pit. Burying waste is the next best option after burning.
- Pour liquid waste down a sink or drain connected to an adequately treated sewer pit or latrine. Burial of infectious liquid with other infectious waste is an acceptable alternative.

Products of conception (POC) resulting from uterine evacuation with misoprostol should be disposed of in the same way as other infectious waste. If a woman passes the POC at home, she should be advised to dispose of them by whatever appropriate means are available to her, such as pouring them down a toilet that is used for feces or by burying them away from a water source. If another person is going to dispose of the waste, he or she should use the precautions noted in this module for handling infectious waste.

4.0 Management of occupational exposure

In the event that a health-care worker is exposed to blood or other body fluids in any way—for example, by needle puncture or a splash to the face or skin—follow these procedures:

- If the exposure caused a bleeding wound, briefly allow the wound to bleed.

- Immediately flush the exposed area with clean water. Wash wounds and skin thoroughly with soap and water. Flush the mucous membranes (nose, eyes, mouth) with water or saline only. If water is not available, use an antiseptic solution.

- Determine the type of fluid and type of exposure.
• Evaluate the exposure source by testing a known source or by evaluating the risk posed by an unknown source.

• Evaluate the exposed person’s immune status, including his or her history of HBV vaccination.

• Give post-exposure prophylaxis for exposures posing a risk of infection.

• Offer voluntary, confidential HIV, HBV and HCV counseling and testing, if available.

• Consult an infectious-disease specialist, if possible.

• Record the exposure and actions taken according to facility protocols. Discuss how another exposure could be prevented in the future and share lessons learned with all staff.

• During follow-up care, advise the exposed person to seek medical evaluation for any acute illness that develops.

5.0 Summary

• Health-care facilities are prime settings for infection transmission to health-care workers, clients and community members because of the presence of numerous types of infectious agents.

• Standard precautions should be applied in all situations where health-care workers anticipate contact with blood, secretions, excretions and other body fluids, non-intact skin, and mucous membranes.

• Hands are the most common vehicle for infection transmission.

• The essential elements of infection prevention are handwashing, use of personal protective barriers, proper handling and disposal of sharp instruments and items, proper handling and processing of instruments and materials, use of aseptic technique, environmental cleanliness and proper disposal of infectious waste.

• The three critical components of aseptic technique for vacuum aspiration are antiseptic preparation, no-touch technique and properly processed instruments.

• All infectious waste should be incinerated or, at the very least, secured and contained properly.

• If a health-care worker is exposed to blood or other body fluids, follow appropriate procedures for the management of occupational exposures.

References


Appendix A: Sharps container

Instructions for making a sharps container:

1. Cut a sheet of cardboard.
2. Fold the cardboard along the indicated lines to form the container.
3. Perforate the designated areas for easy disposal.
4. Glue the sides of the container together to secure it.
5. Place infectious waste into the container.

Infection Prevention
Appendix B: Mixing instructions to produce 0.5% chlorine solution

(mix according to the strength of the locally available brand of bleach)

<table>
<thead>
<tr>
<th>Chlorine Compound</th>
<th>Available Chlorine in Compound</th>
<th>† To Produce 0.5% Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Hypochlorite Solution (Halite)*</td>
<td>6% (available in Yangon at the supermarkets, produced in Thailand)</td>
<td>Mix 10mL bleach with 60mL water (1 part bleach to 6 parts water)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mix 10mL bleach with 90mL water (1 part bleach to 9 parts water)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mix 10mL bleach with 110mL water (1 part bleach to 11 parts water)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mix 10mL bleach with 190mL water (1 part bleach to 19 parts water)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mix 10mL bleach with 290mL water (1 part bleach to 29 parts water)</td>
</tr>
<tr>
<td>Calcium Hypochlorite</td>
<td>70%</td>
<td>Dissolve 7 grams calcium hypochlorite in 1L water</td>
</tr>
<tr>
<td>NaDCC (Sodium Dichloroisocyanurate)</td>
<td>60%</td>
<td>Dissolve 8.5g NaDCC in 1L water</td>
</tr>
<tr>
<td>NaDCC-Based Tablets (Sodium Dichloroisocyanurate)</td>
<td>1.5g per tablet</td>
<td>Dissolve 4 tablets in 1L water</td>
</tr>
<tr>
<td>Chloramine (Tosylchloramide sodium)</td>
<td>25%</td>
<td>Dissolve 20g in 1L boiled water</td>
</tr>
</tbody>
</table>

(Adapted from Tietjen 2003.)

† A 0.5% solution is recommended since clean (boiled or filtered) water is often not available for making the solution and much of the chlorine may be inactivated by microscopic organic matter in the water. Where boiled or filtered water is available, a 0.1% solution is satisfactory.

* Glutaraldehyde and chlorine are hazardous substances. If processing instruments or for environmental use, take necessary precautions such as using personal protective equipment. Refer to the manufacturer’s safety instructions to establish safe use.
Module 6: MVA Instruments

Key topics in this module:

- Instrument features and use
- Processing and care of instruments

1.0 Introduction

The objective of this module is to explain the features of the MVA aspirators and cannulae used for uterine evacuation, as well as provide information about the care and use of these instruments. The module will also explain how to process and store the instruments. The instruments referred to throughout this manual are the Ipas MVA Plus® aspirator and Ipas EasyGrip® cannulae.

2.0 Instrument features and use

Ipas MVA Plus and Ipas EasyGrip cannulae are safe, effective instruments designed to meet women’s uterine evacuation needs.

Other models of Ipas instruments are similar. (Please Appendix A: Comparison of Ipas instruments.)
MVA instruments other than the Ipas MVA Plus and Ipas EasyGrip cannulae are available in some settings, with safe delivery kits for example. All MVA instruments work similarly but the parts, assembly, disassembly and processing may differ slightly. This module will focus on Ipas MVA Plus and Ipas EasyGrip cannulae.

### 2.1 Description of Ipas MVA instruments

MVA instruments consist of a manual vacuum source (aspirator) that produces suction and holds tissue and blood removed in uterine evacuation procedures. Cannulae are attached to the aspirator and used to apply suction to aspirate tissue from the uterus.

**Aspirators**

The Ipas MVA Plus aspirator provides a vacuum of 24 to 26 inches (609.6 to 660.4mm) of mercury. It is composed of a hinged valve with a cap, a removable liner, a pair of buttons that control the vacuum, a plunger with a handle, a collar stop with a retaining clip, an O-ring and a 60cc cylinder for holding evacuated uterine contents. The Ipas MVA Plus is compatible with Ipas EasyGrip cannulae, flexible Karman cannulae, and cannulae from other major manufacturers.
Ipas MVA Plus aspirators are designed for multiple use— they can be re-used. Aspirators are clean when shipped and must be high-level disinfected or sterilized before they are used for the first time and then after each procedure to remove contaminants. Once high-level disinfected or sterilized, aspirators can be kept sterile or HLD, like cannulae (see below). But it is important to note that keeping aspirators sterile or HLD until next use is not required—they can simply be stored in a clean place until next use. (In Myanmar, training will emphasize aspirators to be stored in a clean placed until next use in order to improve resource utilization.)

The Ipas MVA Plus aspirator is made of steam-autoclavable materials and was designed specifically to allow steam contact with all surfaces when disassembled. It can also be processed with cold sterilization or high-level disinfection.

Cannulae

Ipas EasyGrip cannulae are compatible with the Ipas MVA Plus aspirator and the Ipas double-valve aspirator, but they do not fit the Ipas single-valve aspirator. Ipas EasyGrip cannulae, depending on size, have either one aperture (9, 10 and 12mm sizes) or two apertures (4, 5, 6, 7 and 8mm sizes).

The winged shape of the base of the cannulae provides leverage, making it easy to attach a cannula to the aspirator and remove it quickly. No adapters are needed with Ipas EasyGrip cannulae. There are six dots on each cannula, with the first located 6cm from the end and the other dots at 1cm intervals. The dots indicate the location of the main aperture.

Ipas EasyGrip cannulae are considered “semi-rigid” cannulae. This means that the cannulae are less pliable than the flexible Karman cannulae. Some providers have reported that the smallest Ipas EasyGrip cannulae feel a bit firmer than the flexible Karman cannulae and are easier to insert through the cervix, while other providers have reported no notable difference in the feel and flexibility of the cannulae.

Each new cannula is sterilized with ethylene oxide and remains sterile within the package until the stated expiration date. As long as the package is intact, the package can be opened and the cannulae is ready to use. Ipas EasyGrip cannulae are reusable after processing where regulations allow. After each use, the cannulae must be 1) sterilized or high-level disinfected (HLD), 2) must be kept sterilized or high-level disinfected when stored, and 3) must remain sterile or HLD until next use. Ipas EasyGrip cannulae can be processed several ways: steam-autoclaved, cold sterilization or high-level disinfection.

The flexible Karman cannulae are single-use devices. After use, treat and dispose as infectious waste.

Always follow proper protocols on the processing of medical instruments and on the disposal of infectious waste when processing and discarding MVA instruments.

2.2 Uses of Ipas MVA Plus aspirator and Ipas EasyGrip cannulae

All Ipas aspirators and cannulae up to 12mm are intended for uterine evacuation in obstetrics and gynecology clients. Clinical indication for uterine aspiration with this product are: treatment of incomplete or missed miscarriage/abortion for uterine sizes up to 12 weeks since the last menstrual period (LMP).
2.3 Contraindications, warnings and precautions

There are no known contraindications for uterine evacuation with this product. History of blood dyscrasia may be a factor in the woman’s care.

As with any uterine evacuation procedure, one or more of the following may occur during or after an MVA procedure: vagal reaction, incomplete evacuation, uterine or cervical injury or perforation, pelvic infection or acute hematometra. Rarely, some of these conditions can lead to secondary infertility, serious injury or death. (Please see the Clinical Assessment and Complications module.)

Any life-threatening conditions that are present when a woman seeks care should be addressed immediately. These include: shock, hemorrhage, cervical or pelvic infection, sepsis, perforation or abdominal injury, as may occur with incomplete miscarriage-abortion or with unsafe abortion. Uterine evacuation is an important component of the management of these cases and once the woman is stabilized, the procedure should not be delayed.

The provider should not perform uterine evacuation until the size and position of the uterus and cervix have been determined by an abdominal and bimanual exam. Large fibroids or uterine anomalies may make it difficult to determine the size of the uterus and hard to perform intrauterine procedures, including MVA. (Please see the Clinical Assessment and Complications module.)

It is important to use a cannula size appropriate to the size of the uterus and amount of cervical dilation present. Using a cannula that is too small may result in retained tissue or loss of suction. Following are the ranges of suggested cannula sizes relative to uterine size for uterine evacuation with MVA:

- Uterine size 4–6 weeks since the LMP: 4–7mm cannula
- Uterine size 7–9 weeks since the LMP: 5–10mm cannula
- Uterine size 9–12 weeks since the LMP: 8–12mm cannula

2.4 Functioning of the Ipas MVA Plus aspirator

Appropriate client preparation, counseling and informed consent should be performed before any uterine evacuation procedure. To perform the procedure, a cannula is inserted through the cervical os and then attached to an aspirator in which a vacuum has been prepared. The vacuum is then started by releasing the valve buttons and the cannula is used to aspirate the uterus as required. Suction can be started and stopped as needed during the procedure.

Specific guidance on performing uterine-aspiration procedures is included later in this module.

Preparing a vacuum and checking vacuum retention

With the Ipas MVA Plus, a vacuum should be prepared in the aspirator and the vacuum checked before beginning the procedure. To prepare a vacuum in the aspirator, follow the steps below:

1. Begin with the valve buttons open (not depressed), the plunger positioned all the way into the cylinder and the collar stop locked in place, with the tabs pushed down into the holes in the cylinder.
2. Push the buttons down and forward until they lock into place.
3. Create a vacuum by pulling the plunger back until the arms of the plunger snap outward and catch on the wide sides of the cylinder base. Both plunger arms must be fully extended to the sides and secured over the edges of the cylinder. Incorrect positioning of the arms can allow them to slip back inside the cylinder. The vacuum-charged aspirator should never be grasped
by the plunger arms. If the charged aspirator is grasped by both arms, it may inadvertently release the plunger back into the cylinder. Releasing the plunger into the cylinder during a procedure could push the aspirator contents back into the uterus.

4. Check the aspirator for vacuum retention before each use. To do this, follow steps 1, 2, and 3 and then let the aspirator sit for a few moments after establishing the vacuum. Then push the buttons to release the vacuum. A rush of air into the aspirator should be heard, indicating that a vacuum was retained.

5. If the rush of air is not heard, displace the collar stop, withdraw the plunger and check the following:
   a. Is the plunger O-ring intact, rather than nicked or damaged, free of foreign bodies and positioned in the groove?
   b. Is the cylinder firmly placed in the valve?
   c. Has the plunger O-ring been properly lubricated, over-lubricated, or not lubricated at all?

6. Then create a vacuum and test it again. If the vacuum is still not retained, discard and use another aspirator.

Stopping and starting suction
To start suction, release the valve buttons on the vacuum-charged aspirator. To stop suction, push the buttons to close the valve. During use, suction is started after the cannula is in place in the uterus. It may be stopped and started during the procedure, if needed.

Vacuum being created with MVA Plus

3.0 Processing and care of Ipas instruments

With the worldwide increase of infectious agents such as the human immunodeficiency virus (HIV), hepatitis B (HBV) and other infectious microorganisms that can be transmitted in a clinical setting, health workers must be vigilant about protecting their clients, themselves, their families and their communities. Many of these microorganisms live in blood, other body fluids and excretions and on body surfaces, and they can continue to live on every item that they come in contact with, including instruments used for MVA procedures. Microorganisms that can live on medical instruments include endospores and bacteria, which have a hard outer coating and are difficult to destroy. (See the Infection Prevention module.)

Refer to the chart on page 7 to determine a protocol for processing.

The four basic steps for processing contaminated Ipas MVA Plus aspirators and Ipas EasyGrip cannulae are:
1. Decontamination soak
2. Cleaning
3. Sterilization or high-level disinfection
4. Storage

Processing options for Ipas instruments.

* Once sterilized or HLD, aspirators do not need to remain sterile or high-level disinfected for the next use and can be stored in a clean place until the next use. The ability to store the cannula depends on the processing method (see storage section below).
Table 6-1 below shows common processing methods for Ipas instruments. Using inappropriate methods may damage the instruments and render them unusable.

### Table 6-1: Summary of Common Processing Methods for Ipas Instruments

<table>
<thead>
<tr>
<th>Instrument</th>
<th>Status when supplied by Ipas</th>
<th>Minimum level of processing required for use</th>
<th>High-level disinfection</th>
<th>Sterilization</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Chlorine(^{1})</td>
<td>Boiling</td>
</tr>
</tbody>
</table>

All Ipas instruments that are reused should be kept wet until cleaning. A disinfectant such as a 0.5% chlorine solution can be used. **CAUTION:** Letting the instruments dry may make it difficult to completely remove all contaminants. To clean aspirators, wash all surfaces thoroughly in warm water and detergent. Detergent is preferable to soap, which can leave a residue.

<table>
<thead>
<tr>
<th>Ipas MVA Plus aspirator</th>
<th>Clean</th>
<th>HLD</th>
<th>Yes</th>
<th>Yes</th>
<th>Yes</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ipas Single-Valve aspirator</td>
<td>Clean</td>
<td>HLD</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Adapters</td>
<td>Clean</td>
<td>HLD</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Ipas EasyGrip cannula</td>
<td>Sterile (ETO)</td>
<td>HLD</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Flexible Karman cannula</td>
<td>Sterile (ETO)</td>
<td>Single use only</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ipas3mm cannula</td>
<td>Sterile (ETO)</td>
<td>Single use only</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\(^{1}\) Liquid processing agents are hazardous substances. When processing instruments, take necessary precautions, such as using personal protective equipment. Refer to the manufacturer's safety instructions to establish safe use.

**Note:** Ipas Double-Valve aspirator with the blue handle plunger is ONLY available in the United States and the United Kingdom at the time of this publication. This is a single use device only and will not withstand high temperature sterilization process (autoclave or boiling).

(See Appendix B: Methods for processing Ipas MVA Plus aspirators and adapters and Ipas EasyGrip cannulae.)

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MVA Instruments
3.1 Standard precautions

It is important to follow standard precautions for infection prevention when processing instruments. Even following a decontamination soak, instruments will retain harmful microorganisms. *(See the Infection Prevention module.)*

*Note:* Glutaraldehyde and chlorine are hazardous substances. If processing instruments, or for environmental use, take necessary precautions such as using personal protective equipment. Refer to the manufacturer’s safety instructions to establish safe use.

3.2 Decontamination soak

Following the procedure, all instruments to be reused should be kept wet until they can be cleaned. A 0.5% chlorine solution can be used. Soaking instruments immediately after use removes some infectious material and makes them easier to clean by preventing material from drying on them. For easy accessibility, the container used for the decontamination soak should be kept close to the procedure area—for example, on the bottom shelf of the instrument trolley. Soaking in a disinfectant, however, does not make items safe to handle with bare hands. It is essential to use personal protective gear when handling the instruments.

*Steps*

1. Fill a plastic container with solution. A 0.5% chlorine solution can be used.
2. Wearing gloves, submerge the cannula and aspirator completely. Make sure to flush the solution into the aspirator and cannula. After flushing, the valve and the cylinder can be disconnected in the soaking bucket (this way all contaminated areas can be completely submerged).
3. Soak instruments until ready to clean.
4. Use gloves or forceps when removing instruments from the solution.

If the cannula will not be reused, dispose of it and other infectious waste appropriately.

Do not let the instruments dry before cleaning as this may make it difficult to completely remove all contaminants.

3.3 Cleaning

The second step in instrument processing is cleaning. Thorough cleaning with a soft brush, detergent, and water is essential before sterilization or HLD to remove organic and inorganic material on the instruments which can interfere with the effectiveness of these processes. This is the most important step to ensure proper final decontamination of instruments.

*Disassembly of instruments*

Ipas Aspirators must be completely disassembled for processing, and they must be correctly assembled after processing in order to function properly.

To disassemble the Ipas MVA Plus aspirator:

1. Pull the cylinder out of the valve.
2. Press down the cap-release tabs to remove the cap. Then open the hinged valve by pulling open the clasp and remove the valve liner.
3. Disengage the collar stop by sliding it sideways under the retaining clip or removing it completely from the cylinder.
4. Pull the plunger completely out of the cylinder.
5. Displace the O-ring from the plunger by squeezing the sides of the O-ring and rolling it down into the groove below. It is not necessary to completely remove it.

**Steps in cleaning**

Disassemble instruments before cleaning.

1. Remove remaining tissue or blood by washing all surfaces thoroughly in warm water and detergent or soap. Detergent is preferable, as soap may leave a sticky residue. If tissue or dried blood is trapped inside the cannula, flush water through the cannula repeatedly or use a cotton-tipped probe or soft cloth to remove material.

2. Clean the crevices and interior of the cylinder, valve parts and plunger using a soft-bristle brush, being careful not to splash.

3. Clean each item until no tissue or blood is visible upon careful inspection, then rinse.

4. Allow items to dry.

**Caution:** Do not use any pointed or sharp objects to clean the valve or to move the O-ring. This could damage the valve liner or the O-ring and prevent the device from maintaining vacuum.

### 3.4 Sterilization and high-level disinfection

Sterilization or high-level disinfection (HLD) of instruments further inactivates microorganisms.

Sterilization effectively eliminates all microorganisms, including endospores. High-level disinfection eliminates all microorganisms except endospores.
For any sterilization or high-level disinfection process to be effective, cleaning with a soft brush, detergent, and water to remove all visible traces of soil is required.

After cleaning, aspirators and cannulae must undergo sterilization or high-level disinfection between patients to remove contaminants. Devices are then safe to use for the next procedure. Aspirators do not need to remain sterile or high-level disinfected for the next use. They must be stored in a clean place until the next use. Cannulae must remain sterile or high-level disinfected until the next use. It is important to note that the method of processing will determine how long cannula can be stored without repeating HLD before next use. (See section 3.6.)

For optimal infection prevention, items should be processed using a method that provides the highest level of effectiveness. When best practices are followed, the following methods are listed in order of effectiveness:

- Sterilization using steam autoclave
- Sterilization using cold methods (e.g., glutaraldehyde)
- HLD methods (e.g., boiling, chlorine, other cold methods)

High-level disinfection or sterilization according to one of the options below is required to reuse Ipas aspirators or cannulae. Additional methods which are less universally available for sterilization and high-level disinfection are included in Appendix B: Methods for Processing Ipas MVA Plus Aspirators and adaptors and Ipas EasyGripCannulae.

- Steam autoclave instruments at 121°C (250°F) with a pressure of 106kPa (15 lbs/in²) for 30 minutes.

Note: Ipas double-valve and single-valve aspirators and flexible Karman cannulae will crack or melt if autoclaved.

- Sterilize using glutaraldehyde. Soak the clean instruments in glutaraldehyde (Cidex or a similar product) for 10 hours. Follow the manufacturer’s recommendations for the product used. All Ipas aspirators can withstand glutaraldehyde processing.

- High-level disinfect by boiling. Place the clean instruments in water at a rolling boil for 20 minutes.

Note: The Ipas MVA Plus aspirator and Ipas EasyGrip cannulae can be boiled. However, other Ipas instruments can crack or melt if boiled.

- High-level disinfect using glutaraldehyde. Soak the clean instruments in glutaraldehyde (Cidex or a similar product) for 20 minutes. Follow manufacturer’s recommendations for the product used.

- High-level disinfect using a 0.5% chlorine solution. Soak the clean instruments in a 0.5% chlorine solution for 20 minutes.

**Steps to sterilize using steam autoclave**

1. All parts of the Ipas MVA Plus aspirator and Ipas EasyGrip cannulae can be steam sterilized at 121°C (250°F). Parts should not touch each other and the collar stop should be completely removed.
from the cylinder. Arrange the instruments without obstructing apertures or the opening at the base end of the cannulae to allow drainage.

2. Since the cannulae, particularly the smaller sizes, may curve in a steam autoclave, package them in paper or linen. Place the clean Ipas EasyGrip cannulae and the Ipas MVA Plus aspirator in a single layer in a steam autoclave. Note that steam sterilizing unwrapped Ipas EasyGrip cannulae for 30 minutes may result in slight curvature.

Caution: Do not use temperature settings over 121°C (250°F). Specifically, do not use higher temperature settings for shorter periods of time (known as “flash” autoclaving), as this may damage the instruments. Be sure that the autoclave is set to the correct parameters before autoclaving.

3. Process instruments in the steam autoclave for 30 minutes at 121°C (250°F).

4. Cool all instruments before using.

Steps to sterilize using glutaraldehyde
1. Completely immerse the instruments so that the solution fills them completely.

2. Soak in glutaraldehyde solution for the time recommended by the manufacturer—for example, 10 hours for Cidex.

3. Remove with sterile gloves or forceps.

4. Rinse all parts with sterile water. Do not use tap water to rinse.

5. Dry with a sterile cloth, if desired.

6. Change the solution according to the manufacturer’s instructions. Generally, glutaraldehyde has a 14-day shelf-life after being activated, but it should be discarded sooner if the solution becomes cloudy. Do not use below 25°C (77°F).

Once instruments have been sterilized, anything that subsequently comes in contact with them must also be sterile, for example, gloves or a storage container.

Steps to high-level disinfect by boiling
1. Place the instruments in water at a rolling boil. Items do not need to be fully immersed.

2. Boil for 20 minutes.

3. Remove using HLD or sterile gloves or forceps.
4. Dry with a sterile cloth, if desired.
5. Cool before use. Handle the cannulae by the base ends when removing. Grasping hot instruments may cause flattening. The boiling process may discolor cannulae but this does not affect their function. (Boiling is an appropriate method of HLD for Ipas MVA Plus instruments. Do not boil Ipas single-valve or double-valve aspirators.)

**Steps to high-level disinfect using glutaraldehyde**

1. Completely immerse the instruments so that the solution fills them completely.
2. Soak in glutaraldehyde solution for the time recommended by the manufacturer—for example, 20 minutes for Cidex.
3. Remove from solution using HLD or sterile gloves or forceps.
4. Rinse all parts with sterile or boiled water.
5. Dry with a sterile cloth, if desired.
6. Change the solution according to manufacturer’s instructions—every 14 days or sooner if the solution becomes cloudy.

**Steps to high-level disinfect using a 0.5% chlorine soak**

1. Completely immerse instruments so that the solution fills them completely. Use a plastic (non-metal) container.
2. Soak in a 0.5% chlorine solution for 20 minutes.
3. Remove from solution using HLD or sterile gloves or forceps.
4. Rinse all parts with sterile or boiled water.
5. Dry with a sterile cloth, if desired. Chlorine solution should be changed daily or sooner if it becomes cloudy.
3.5 Assembly and lubrication of the aspirator

Aspirators should be reassembled after processing and once dry, the plunger O-ring should also be lubricated before reassembly. They must be correctly assembled after processing in order to function properly. To assemble the Ipas MVA Plus aspirator:

1. Place the valve liner in position inside the valve by aligning the internal ridges. Close the valve until it snaps in place.
2. Snap the cap into place on the end of the valve.
3. Push the cylinder into the base of the valve.
4. Place the plunger O-ring in the groove at the end of the plunger and lubricate it by spreading one drop of lubricant around the O-ring with a fingertip. Silicone, which is not sterile, is provided with the aspirator; other non-petroleum-based lubricants can also be used. Caution: Excessive lubrication can cause the aspirator to lose vacuum. Do not over-lubricate the plunger O-ring. Do not lubricate other parts of the aspirator.
5. When reassembling the aspirator, ensure that the plunger is introduced straight into the cylinder and not introduced at an angle.
6. Squeeze the plunger arms and fully insert the plunger into the cylinder.
7. Move the plunger in and out to lubricate the cylinder.
8. Insert the tabs of the collar stop into the holes in the cylinder so that the plunger cannot be pulled out of the cylinder.

Always check that the aspirator retains a vacuum before using it. See Section 2.4 for instructions on how to check for vacuum retention.

3.6 Storage of instruments

Instruments should be stored in an environment that preserves the level of processing. However, it is important to note that the aspirator and the cannula can be stored differently.

Aspirator: The aspirator can be stored in a clean, dry place protected from dust and other contaminants until the next use. Unlike the cannula, the aspirator does not have to remain sterile or HLD until next use. If all the parts are dry, reassemble the aspirator for storage using clean gloves or clean hands. This is because the aspirator does not directly touch the inside of a woman’s body during use.

Cannula: The cannula needs to be sterile or HLD at the time of use. Storage of the cannula depends on the processing method used. If steam autoclaved, the cannula needs to remain sterile and stored in a sterile place until next use. If sterilized by glutaraldehyde soak, the cannula needs to be stored in a sterile container to maintain sterility, but should be reprocessed prior to use if not used that same day. If HLD with boiling or chemicals, the cannula needs to be stored in a HLD container to maintain HLD status, but should be reprocessed prior to use if not used that same day. This is because items that have been processed using wet methods are more prone to microbial growth as there is often no efficient way to dry items that have been processed by wet methods.
Disinfectants used in processing Ipas instruments

Any chemical that kills microorganisms is a germicide. Strong germicides called disinfectants are used for cleaning equipment. Weaker germicides called antiseptics are used on people. Antiseptics should not be used for cleaning or processing instruments and equipment, as they are not strong enough to be effective. The following agents should not be used for instrument processing: formaldehyde solution, which is toxic; formalin chambers, which are ineffective; and hydrogen peroxide, which is light sensitive.

A 0.5% chlorine solution can be used for the decontamination soak and high-level disinfection of instruments, and can also be used as a general all-purpose cleaning solution for the clinical equipment and environment. This mixture of sodium hypochlorite (bleach) or other chlorine compounds, such as calcium hypochlorite, is a strong disinfectant for many objects, as well as typically inexpensive. The correct concentration can easily be mixed using a locally available agent and water. (Please see Appendix B: Methods for processing Ipas MVA Plus aspirators and adaptors and Ipas EasyGrip® cannulae.)

Health-care workers should use different buckets of 0.5% chlorine solution for soaking, high-level disinfecting and general cleaning. The same bucket of solution should not be used for more than one purpose.

3.7 Disposal and replacement

When disposing of Ipas MVA Plus aspirators and cannulae, treat them as infectious waste.

If any of the following have occurred, the instruments should be discarded and replaced:

Aspirators:
- Cylinder has become cracked or brittle
- Valve parts have become cracked, bent or broken
- Buttons have broken
- Plunger arms no longer lock
- Aspirator no longer holds a vacuum
- Mineral deposits inhibit the plunger movement

Cannulae:
- Cannula has become brittle
- Cannula has become cracked, twisted or bent, particularly around the aperture
- Tissue cannot be removed during the cleaning process

4.0 Summary

- The Ipas MVA Plus aspirator is composed of a valve body, plunger, a 60cc cylinder and a collar stop.
• Ipas EasyGrip cannulae are available in sizes 4, 5, 6, 7, 8, 9, 10, and 12 mm, have either one aperture (9, 10 and 12mm sizes) or two apertures (4, 5, 6, 7 and 8mm sizes), and do not require separate adapters.

• Clinical indications for uterine aspiration with Ipas MVA Plus and Ipas EasyGrip cannulae are: treatment of incomplete or missed miscarriage-abortion for uterine sizes up to 12 weeks since the last menstrual period (LMP)

• Providers should be able to prepare a vacuum, check vacuum retention, and start and stop suction.

• Protocols for processing must be appropriate for the specific aspirators and cannulae in use.

• After cleaning, aspirators and cannulae must undergo sterilization or high-level disinfection between patients to remove contaminants.

• Both the MVA Plus aspirator and the Ipas EasyGrip cannulae can be sterilized or high-level disinfected in several different ways including steam-autoclave, glutaraldehyde, boiling, or 0.5% chlorine solution

• After fully processing, aspirators do not need to remain sterile or high-level disinfected for the next use and can be kept in a clean place. Cannulae must be sterile or high-level disinfected at the time of use.

• Proper handling and storage are essential to maintaining the sterility or high-level disinfection of instruments.

• The plunger O-ring must be lubricated with one small drop of lubricant after processing.

• Instruments that are worn out or damaged should be discarded according to local hazardous waste protocols or replaced.

References


Appendix A: Comparison of Ipas Instruments

The charts below highlight design features and compatibility between Ipas aspirators and cannulae.

### Comparison of Ipas Aspirators

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Ipas MVA Plus</th>
<th>Ipas Single-Valve</th>
<th>Ipas Double-Valve</th>
</tr>
</thead>
<tbody>
<tr>
<td>Holding capacity</td>
<td>60cc</td>
<td>60cc</td>
<td>60cc</td>
</tr>
<tr>
<td>Suction capacity</td>
<td>24–26 inches (609.6–660.4 mm) of mercury</td>
<td>24–26 inches (609.6–660.4 mm) of mercury</td>
<td>24–26 inches (609.6–660.4 mm) of mercury</td>
</tr>
</tbody>
</table>
| Compatibility with Ipas cannulae | • Compatible with Ipas EasyGrip cannulae, all sizes, no adapters needed  
• Compatible with all sizes of flexible Karman cannulae; 12 mm does not require separate adapter  
• Compatible with the Ipas 3 mm cannula; requires 6 mm adapter | • Not compatible with Ipas EasyGrip cannulae  
• Compatible with flexible Karman cannulae, sizes 4, 5, 6 mm only; no separate adapters needed  
• Compatible with the Ipas 3 mm cannulae; no separate adapters needed | • Compatible with Ipas EasyGrip cannulae, all sizes, no adapters needed  
• Compatible with all sizes of flexible Karman cannulae; 12 mm does not require separate adapter  
• Compatible with the Ipas 3 mm cannula; requires 6 mm adapter |
| Processing methods*      | • Must be high-level disinfected or sterilized between uses  
• High-level disinfection (HLD) with 0.5% chlorine ▲  
• HLD by boiling  
• HLD with Cidex® / glutaraldehyde ▲  
• HLD with Cidex OPA ▲  
• HLD with Sporox™ I ▲  
• Sterilization with steam autoclave (250°F; 121°C)  
• Sterilization with Cidex® / glutaraldehyde ▲  
• Sterilization with STERRAD® 100S  
• Sterilization with Sporox™ II ▲ | • Must be high-level disinfected or sterilized between uses  
• High-level disinfection (HLD) with 0.5% chlorine ▲  
• DO NOT BOIL  
• HLD with Cidex® / glutaraldehyde ▲  
• HLD with Cidex OPA ▲  
• HLD with Sporox™ II ▲  
• DO NOT USE IN STEAM AUTOCLAVE  
• Sterilization with Cidex® / glutaraldehyde ▲  
• Sterilization with Sporox™ II ▲ | SINGLE USE ONLY |
| Valve design             | • Valve liner is removable by opening hinged valve body  
• 2 valve buttons | • Valve liner is removable  
• 1 valve button | • Valve liner is not removable  
• 2 valve buttons  
• Valve O-ring required |
| Cylinder design          | Collar stop must be displaced or removed for processing | Collar stop must be removed for processing | SINGLE USE ONLY |
| Plunger design           | • Plunger O-ring must be displaced or removed for processing  
• Ergonomic handle | Plunger O-ring must be displaced or removed for processing | SINGLE USE ONLY |

* The Ipas MVA Plus and the Ipas Single-Valve Aspirator must be HIGH-LEVEL DISINFECTED OR STERILIZED BETWEEN USES.

▲ Liquid processing agents are hazardous substances. When processing instruments, take necessary precautions, such as using personal protective equipment. Refer to the manufacturer’s safety instructions to establish safe use.
# Appendix B: Methods for processing Ipas MVA Plus aspirators and Ipas EasyGrip cannulae

<table>
<thead>
<tr>
<th>Method</th>
<th>Agent</th>
<th>Time</th>
<th>Precautions</th>
</tr>
</thead>
<tbody>
<tr>
<td>High-Level Disinfect (HLD)</td>
<td>Chlorine ▲</td>
<td>20</td>
<td>Completely immerse disassembled parts. After processing, rinse all parts with sterile or boiled water. Discard solution daily or sooner if solution becomes cloudy.</td>
</tr>
<tr>
<td></td>
<td>Dilute to 0.5%.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boiling water* (Ipas MVA Plus and Adapters only)</td>
<td></td>
<td>20</td>
<td>Disassembled parts do not need to be fully immersed. Bring to room temperature before use.</td>
</tr>
<tr>
<td>2% Glutaraldehyde (Cidex*) ▲</td>
<td>Follow manufacturer’s instructions</td>
<td></td>
<td>Completely immerse disassembled parts. After processing, rinse all parts with sterile or boiled water. Discard solution 14 days after mixing or sooner if solution becomes cloudy. Do not use below 77°F (25°C).</td>
</tr>
<tr>
<td>Glutaraldehyde (other solutions) ▲</td>
<td>Follow manufacturer’s instructions</td>
<td></td>
<td>Completely immerse disassembled parts. After processing, rinse all parts with sterile or boiled water. Usually discard solution 14 days after mixing or sooner if solution becomes cloudy.</td>
</tr>
<tr>
<td>Sporox ▲</td>
<td></td>
<td>30</td>
<td>Completely immerse disassembled parts. After processing, rinse all parts with sterile or boiled water. Discard solution 21 days or sooner as indicated by results from SPOROX® test vials. Use at 68°F (20°C).</td>
</tr>
<tr>
<td>Cidex OPA ▲</td>
<td></td>
<td>12</td>
<td>Completely immerse disassembled parts. After processing, rinse all parts with sterile or boiled water. Discard solution 14 days or sooner as indicated by Cidex OPA solution test strips. Do not use below 68°F (20°C). Note: Cidex OPA will discolor the liners of the Ipas MVA Plus and the Single-valve aspirator.</td>
</tr>
</tbody>
</table>

# Ipas aspirators must be HIGH-LEVEL DISINFECTED OR STERILIZED BETWEEN USES.

* CAUTION: Never boil or steam autoclave the plungers from the Ipas Single-Valve aspirator as they will emit formaldehyde. Do not interchange plungers between aspirator types. Liquid processing agents are hazardous substances. When processing instruments, take necessary precautions, such as using personal protective equipment. Refer to the manufacturer’s safety instructions to establish safe use.
## Appendix B: Methods for processing Ipas MVA Plus aspirators and Ipas EasyGrip cannulae (continued)

<table>
<thead>
<tr>
<th>Method</th>
<th>Agent</th>
<th>Time</th>
<th>Precautions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sterilize</td>
<td>Steam autoclave* (Ipas MVA Plus and Adapters only)</td>
<td>Sterility is achieved at 121°C (250°F) for 30 minutes with pressure of 106kPa (15lbs/in²). Do not use other autoclave settings. Specifically, do not use higher settings for shorter periods of time (known as “flash autoclaving”).</td>
<td>Place the disassembled aspirator in linen or paper. Steam must penetrate all surfaces. Parts should not touch and should be arranged so openings are not obstructed, permitting drainage. With the Ipas MVA Plus, the collar stop must be completely removed (not held with the retaining clip). Bring to room temperature before use.</td>
</tr>
<tr>
<td></td>
<td>2% Glutaraldehyde (Cidex) ▲</td>
<td>10 hours</td>
<td>Completely immerse disassembled parts. After processing, rinse all parts with sterile water. Usually discard solution 14 days after mixing or sooner if solution becomes cloudy.</td>
</tr>
<tr>
<td></td>
<td>Follow manufacturer's Instructions for mixing.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Glutaraldehyde (other solutions) ▲</td>
<td>Follow manufacturer’s instructions.</td>
<td>Completely immerse disassembled parts. After processing, rinse all parts with sterile water. Usually discard solution 14 days after mixing or sooner if solution becomes cloudy.</td>
</tr>
<tr>
<td></td>
<td>Follow manufacturer’s Instructions for mixing.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>STERRAD® 1005 (Ipas MVA Plus and adapters only)</td>
<td>55 minutes</td>
<td>Place the disassembled aspirator along with a chemical indicator strip in an approved tray or peel pack.</td>
</tr>
<tr>
<td></td>
<td>Sporoxill ▲</td>
<td>6 hours</td>
<td>Completely immerse disassembled parts. After processing, rinse all parts with sterile water. Discard solution 21 days or sooner as indicated by results from SPOROX® test vials. Use at 68°F (20°C).</td>
</tr>
</tbody>
</table>

# Ipas aspirators must be HIGH-LEVEL DISINFECTED OR STERILIZED BETWEEN USES.

* CAUTION: Never boil or steam autoclave the plungers from the Ipas Single-Valve aspirator as they will emit formaldehyde. Do not interchange plungers between aspirator types.

▲ Liquid processing agents are hazardous substances. When processing instruments, take necessary precautions, such as using personal protective equipment. Refer to the manufacturer’s safety instructions to establish safe use.
### Appendix B: Methods for processing Ipas MVA Plus aspirators and Ipas EasyGrip cannulae (continued)

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<th>Method*</th>
<th>Agent</th>
<th>Time</th>
<th>Precautions</th>
</tr>
</thead>
<tbody>
<tr>
<td>High-Level Disinfect (HLD)</td>
<td>Chlorine△</td>
<td>20 minutes</td>
<td>Items must be fully immersed. Discard solution daily or sooner if solution becomes cloudy. After processing, rinse all parts with sterile or boiled water.</td>
</tr>
<tr>
<td>Boiling water</td>
<td></td>
<td>20 minutes</td>
<td>Items do not need to be fully immersed. Cannulae may discolor without affecting function. Grasping hot cannulae may cause flattening. Let water cool before removing cannulae and handle by the adapter/base end.</td>
</tr>
<tr>
<td>2% Glutaraldehyde (Cidex)△</td>
<td></td>
<td>20 minutes or follow manufacturer’s instructions</td>
<td>Items must be fully immersed. Discard solution 14 days after mixing or sooner if solution becomes cloudy. Do not use below 77°F (25°C). After processing, rinse all parts with sterile or boiled water.</td>
</tr>
<tr>
<td>Glutaraldehyde (other solutions)△</td>
<td></td>
<td>Follow manufacturer’s instructions</td>
<td>Items must be fully immersed. Usually discard solution 14 days after mixing or sooner if solution becomes cloudy. After processing, rinse all parts with sterile or boiled water.</td>
</tr>
<tr>
<td>SporoxII△</td>
<td></td>
<td>30 minutes</td>
<td>Items must be fully immersed. After processing, rinse all parts with sterile or boiled water. Discard solution 21 days or sooner as indicated by results from SPOROX test vials. Use at 68°F (20°C).</td>
</tr>
<tr>
<td>Cidex OPA△</td>
<td></td>
<td>12 minutes</td>
<td>Items must be fully immersed. After processing, rinse all parts with sterile or boiled water. Discard solution 14 days or sooner as indicated by Cidex OPA solution test strips. Do not use below 68°F (20°C). Note: Cidex OPA will discolor the liners of the Ipas MVA Plus and the single-valve aspirator.</td>
</tr>
</tbody>
</table>

* Ipas EasyGrip cannulae must be HIGH-LEVEL DISINFECTED OR STERILIZED BETWEEN USES.

△ Liquid processing agents are hazardous substances. When processing instruments, take necessary precautions, such as using personal protective equipment. Refer to the manufacturer’s safety instructions to establish safe use.

In addition to these options for sterilization and high-level disinfection, Ipas EasyGrip cannulae can be sterilized with ethylene oxide (ETO). The Ipas MVA Plus aspirator should not be processed with this method.
## Appendix B: Methods for processing Ipas MVA Plus aspirators and Ipas EasyGrip cannulae (continued)

<table>
<thead>
<tr>
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<tr>
<td>Sterilize</td>
<td>Steam autoclave*</td>
<td>Sterility is achieved at 121°C (250°F) for 30 minutes with pressure of 106kPa (15 lbs/in²). Do not use other autoclave settings. Specifically, do not use higher settings for shorter periods of time (known as “flash autoclaving.”).</td>
<td>Steam must penetrate all surfaces. Parts should not touch and should be arranged so openings are not obstructed, permitting drainage. Ipas EasyGrip cannulae, particularly the smaller sizes, may curve in steam autoclaves. To minimize this, package them by wrapping in paper or linen, and lay the package flat along the side or on the bottom of the autoclave. Be sure no other objects in the autoclave are positioned to cause bending of the cannulae.</td>
</tr>
<tr>
<td>2% Glutaraldehyde (Cidex)▲</td>
<td>Follow manufacturer’s instructions for mixing.</td>
<td>10 hours</td>
<td>Items must be fully immersed. Discard solution 14 days after mixing or sooner if solution becomes cloudy. Do not use below 77°F (25°C). After processing, rinse all parts with sterile water.</td>
</tr>
<tr>
<td>Glutaraldehyde (other solutions)▲</td>
<td>Follow manufacturer’s instructions.</td>
<td></td>
<td>Items must be fully immersed. Usually discard solution 14 days after mixing or sooner if solution becomes cloudy. After processing, rinse all parts with sterile water.</td>
</tr>
<tr>
<td>Sporoxil▲</td>
<td></td>
<td>6 hours</td>
<td>Items must be fully immersed. Discard solution 21 days or sooner as indicated by results from SPOROX test vials. Use at 68°F (20°C). After processing, rinse all parts with sterile water.</td>
</tr>
</tbody>
</table>

* Ipas EasyGrip cannulae must be HIGH-LEVEL DISINFECTED OR STERILIZED BETWEEN USES.

▲ Liquid processing agents are hazardous substances. When processing instruments, take necessary precautions, such as using personal protective equipment. Refer to the manufacturer’s safety instructions to establish safe use.

In addition to these options for sterilization and high-level disinfection, Ipas EasyGrip cannulae can be sterilized with ethylene oxide (ETO). The Ipas MVA Plus’ aspirator should not be processed with this method.
Module 7: Surgical Management of PAC

Key topics in this module:

- Preparation for an MVA procedure
- Pain management
- Uterine evacuation procedure with MVA
- Special considerations: Young women
- Post-procedure care
- Management of procedure-related complications

Follow-up care 1.0 Introduction

The objective of this module is to explain the steps involved in a manual vacuum aspiration (MVA) procedure using the Ipas MVA Plus aspirator and Ipas EasyGrip cannulae, which are now manufactured and distributed globally by WomanCare Global (www.womancareglobal.org).

PAC treatment can be an emergency situation, and the woman’s condition can change quickly at any point during her care. The provider should remain alert for changes in the patient’s emotions and physiology throughout the procedure, as these changes may indicate complications.
2.0 Preparation

Before the MVA procedure:

- Provide counseling to the woman and obtain informed consent (see the Informed Consent, Information and Counseling module).
- Perform a clinical assessment; including physical examination (see the Clinical Assessment and Management of Miscarriage/Abortion and Complications module).
- Discuss her contraceptive needs, as she may ovulate almost immediately after an MVA procedure (see the Postabortion Contraceptive Counseling and Services module).

2.1 Explaining the MVA process to women

Before the procedure, the woman should receive instructions about what she may experience, when to follow up, and when and where to seek medical help in case of a problem. Because some words are probably unfamiliar to her, providers should use simple language. Thorough information on what the woman might expect helps her to be prepared. Reassurance and support during the uterine evacuation process can also be helpful. (See the Informed Consent, Information and Counseling module.)

2.2 Clinical assessment: Physical examination

Clinical assessment prior to uterine evacuation with MVA Plus includes gestational dating, assessment of uterine size, assessment of the woman’s general health and any contraindications or precautions. (Please see the Clinical Assessment and Management of Miscarriage/Abortion and Complications module.)

2.3 Contraceptive needs

Almost all methods of contraception can be initiated immediately following medical or surgical evacuation. A woman may ovulate very soon after an MVA procedure. Therefore, all women who do not wish to become pregnant should leave the facility with an effective method of contraception. (Please see the Postabortion Contraceptive Counseling and Services module.)

3.0 Pain management

Most women requiring postabortion care treatment may be experiencing pain related to the complications or will experience pain during the procedure. Providers consistently underestimate the amount of pain a woman experiences during vacuum aspiration. All women who present for postabortion care should be offered pain management and provided these services without delay. Providers should always offer gentle, respectful care and provide appropriate information, which can help women stay calm and reduce anxiety and pain.

Pain management should address both the physical aspects of pain as well as the psychosocial contributors.
3.1 Pain management plan

Prior to performing the procedure, the provider should create a pain management plan with the woman. The purpose of the plan is to reduce any physical pain and anxiety and minimize medication-induced risks and side effects.

During a uterine evacuation, pain can be reduced with a combination of verbal support, oral medications, paracervical block, skilled and gentle clinical technique, and calming environment. Non-steroidal anti-inflammatory drugs but not paracetamol should always be offered for uterine evacuation, and provided without delay to women who desire it. Conscious sedation is an option in centers where it is offered. General anesthesia increases the risk of complications and is not recommended for routine procedures.

- Explain that the MVA procedure usually lasts less than 10 minutes but during that time and perhaps afterwards she will experience some discomfort.
- Discuss various options available to reduce pain, along with their potential side effects.
- Decide on a pain-management plan together, giving the woman control over which methods to use. Providers can increase client satisfaction by allowing the woman to select the method that best fits her individual circumstances.

Each health-care facility should develop a feasible protocol for pain management based on supplies that are available.

3.2 Non-pharmacological methods for pain management

Non-pharmacological methods, including verbal and physical reassurance, gentle clinical technique and calming environment, can decrease a woman’s anxiety and perception of pain, and should be considered for every MVA procedure. The woman’s perception of pain is strongly affected by her level of anxiety and the amount of information she receives about the procedure. Respectful, supportive care by staff helps reduce anxiety and decrease pain, and should be a standard part of care. Providers can ask which supportive measures a woman prefers. A woman may feel more relaxed and comfortable if a nurse, assistant or companion accompanies her during the procedure. The provider and her companion should ask her in advance about her preference for support measures they will offer.

**Verbal and physical reassurance**

Verbal and physical reassurance before, during and after the procedure may help some women relax. Verbal reassurance, however, is not a substitute for pharmacological methods of pain control, but a useful supplement to them.

**Gentle clinical technique**

The provider should always be gentle during physical contact with the woman, ensuring that instruments are at a comfortable temperature. As instruments are inserted and moved, providers should use smooth motions and gentle technique. It is important for providers to inform the woman that they are going to touch her and explain what she is going to feel, before performing the action. Movements that are jerky or sudden can cause the woman additional discomfort.

**Calming environment**
Facility staff can create a calming environment by providing appropriate music, lighting, and décor. Music is effective for pain management in uterine evacuation with VA.

Positive statements for verbal reassurance by the health-care team

“What can I do that would be most helpful to you?”

“What do you imagine will be the most difficult part of this for you?”

“I can’t promise that it won’t hurt, but I can promise you that the procedure will be done as gently as possible.”

“I’ll be right beside you, and you can squeeze my hand during the procedure.”

(Adapted from Stewart et al., 2002)

3.3 Pharmacological methods for pain management

Oral medications

Premarkedation with non-steroidal analgesics such as ibuprofen or naproxen has been shown in clinical trials to decrease pre- and post-procedure pain. In addition, premarkedation with oral anxiolytics such as lorazepam may be of benefit to some women but clinical trial evidence does not support its routine use.

Local anesthesia

A paracervical block with 20mL of buffered lidocaine 1% given three minutes before dilating the cervix has been shown to decrease pain with dilation and aspiration. Paracervical block is a low risk procedure that can be performed by physicians and midlevel providers. Provide verbal reassurance.

Conscious sedation

Conscious sedation using a combination of intravenous medications such as fentanyl and midazolam is an effective means of pain control and improves satisfaction with the uterine evacuation procedure. However, providing conscious sedation increases the expense, complexity and potential risks of a uterine evacuation procedure. Increased monitoring requires facility investments in training and equipment to deliver conscious sedation safely.

(Please see Appendix A: Pharmacologic Approaches to pain management during MVA.) Any medication administered to the woman should be in full effect by the time the procedure starts. The provider should continually monitor and manage medicationinduced side effects and complications.

3.4 Post-procedure pain management

Some pain is normal following even uncomplicated uterine aspiration procedures because the uterus is contracting. Pain that increases over time requires clinical evaluation. Analgesics like ibuprofen can
help relieve cramping pain. Narcotics are usually not necessary. If narcotics or other strong pain medications were given before, during or after the uterine evacuation procedure, close monitoring may be necessary depending on the route, dose and type of drug given. Providers should inform women about all their choices for pain management in the post-procedure period and provide them with instructions about how to take any pain medications that they receive. See Section 5.0 of this module for more information.

(See Appendix A: Pharmacologic approaches to pain management during MVA for more information about pain medication options.)

4.0 Uterine evacuation procedure

Steps for performing MVA

1. Prepare instruments
2. Assist the woman
3. Perform cervical antiseptic prep
4. Perform paracervical block
5. Dilate cervix
6. Insert cannula
7. Suction uterine contents
8. Inspect tissue
9. Perform any concurrent procedures
10. Take immediate post-procedure steps, including instrument processing

4.1 Steps for performing MVA

Step 1: Prepare instruments

The provider should check the aspirator for vacuum retention before beginning the MVA procedure, and then create a vacuum for evacuation during the procedure. (Please see the MVA Instruments Module.)

When the uterine contents are likely to be copious, as in cases of hydatidiform mole it can be helpful to have more than one aspiration device ready for use. It is also useful to have a back-up aspirator readily available in case the first aspirator has technical problems. Alternately, the provider should be prepared to quickly empty and recharge one MVA aspirator, as needed. (See Appendix B: Suggested equipment and supplies for uterine evacuation procedure with Ipas MVA Plus.)
Step 2: Prepare the woman
Administer pain medication to have maximum effect when procedure begins. Give prophylactic antibiotics to all women, and therapeutic antibiotics if indicated. Ask the woman to empty her bladder. Carefully help her onto the procedure table. Ensure that she is securely positioned and that she has given permission to start the procedure.

Wash hands and put on appropriate barriers, including gloves. Perform a bimanual examination to confirm or update findings of the earlier clinical assessment. It is crucial to have an accurate assessment of uterine size and position before performing a uterine evacuation.

Next, select a speculum. If a range of sizes are available, use the size appropriate to the woman and conducive to the exam or procedure. Insert the speculum.

Step 3: Perform cervical antiseptic prep
Following the “no-touch technique” throughout, the provider should use an antiseptic-soaked sponge to clean the cervical os and, if desired, the vaginal walls. With each new sponge, start at the os and spiral outward. Continue until the os has been completely covered by antiseptic. Do not clean the cervix with the same gauze used for cleaning the vagina.

Step 4: Perform paracervical block
This technique is recommended, as it has been shown to decrease pain of dilation and uterine aspiration:

- Load a 20mL syringe with unbuffered or buffered 1% lidocaine.
  - If buffering, use 18mL 1% lidocaine with 2mL sodium bicarbonate 8.4%.
- Attach a 20 gauge spinal needle* to the syringe.
- Inject 2mL superficially into the cervix at the site where the tenaculum will be placed (12 o’clock).
- Grasp the cervix with the tenaculum.
- Inject the remaining 18mL in equal amounts at the cervicovaginal junction at 2, 4, 8 and 10 o’clock. The injection is continuous from superficial to deep to superficial to a depth of 3cm. Always aspirate before injecting to prevent injecting into a vein.
- Dilation begins 3 minutes after the paracervical block is complete.

*Other needles may be used, such as a hypodermic needle or the needle from an IV insertion set.

To minimize clinical risk, use the lowest anesthetic dose possible, usually 10 to 20mL of 0.5-1% lidocaine solution. When using lidocaine, the recommended dose is less than 200mg/ person, as toxicity occurs at that level.

Step 5: Dilate cervix
For postabortion care, a woman may have an open cervical os and not require dilatation. If the appropriate size cannula fits snugly through the os, no dilation is needed. However, cervical dilatation is an essential step if the cervix is closed or is not yet sufficiently dilated. (Please see the MVA Instruments module for more information about cannula sizes.)
It is essential to carefully examine the position of the uterus and cervix and to gently use instruments that accommodate the woman’s anatomy. Dilate the cervix as necessary to allow a cannula approximate to the uterine size to fit snugly through the os.

The provider should dilate gently, never using force. Use mechanical dilators or progressively larger MVA cannulae, being careful not to tear the cervix or create a false opening. The tenaculum can be used to straighten the cervical os to allow for easier passage of the dilators. Uterine perforation can occur, particularly if the provider miscalculates the position, size and depth of the cervix and uterus or uses force to insert instruments.

Cervical preparation may be helpful for very young women or nulliparous women at lower gestational ages and may be used at the provider’s discretion. Misoprostol may be used for cervical preparation, if available. (Please see Appendix C: Cervical preparation before first-trimester vacuum aspiration.)

In cases of missed miscarriage/abortion, dilatation is often required. Dilatation can be achieved by using either a physical instrument, such as a metal or plastic dilator, or a medication, such as misoprostol.

**Step 6: Insert cannula**

While gently applying traction to the cervix, insert the cannula through the cervix, just past the cervical os and into the uterine cavity. Alternately, move the cannula slowly into the uterine cavity until it touches the fundus, and then withdraw it slightly. Rotating the cannula while gently applying pressure often helps insertion.

Do not insert the cannula forcefully through the cervical os into the uterus. Forceful movements may cause damage to the cervix or uterine perforation and damage to pelvic organs and blood vessels. Remain alert to signs that may indicate perforation throughout the procedure, and stop suction immediately if they appear.

**Step 7: Suction uterine contents**

Attach the prepared MVA aspirator to the cannula, holding the tenaculum and the end of the cannula in one hand and the aspirator in the other hand. Suction is started by pressing the buttons in; suction will start immediately.

Evacuate the contents of the uterus by gently and slowly rotating the cannula 180 degrees in each direction, using an in-and-out motion. Blood and tissue will be visible entering the cylinder of the aspiration device through the cannula. It is important not to withdraw the opening of the cannula beyond the cervical os, as this will cause the vacuum to be lost. If this happens, or if the aspirator is full, detach cannula from aspirator and re-establish the vacuum.

Be aware that Ipas EasyGrip cannulae fit firmly into the valve body and care should be used when disconnecting a cannula from the aspirator.
The following signs indicate that the uterus is empty:

- Red or pink foam appears and no more tissue is seen passing through the cannula
- A gritty sensation is felt as the cannula passes over the surface of the evacuated uterus
- The uterus contracts around (grips) the cannula
- The woman complains of cramping or pain, indicating that the uterus is contracting

When the procedure is finished, depress the buttons and disconnect the cannula from the aspirator. The wings can aid in this action. Alternately, carefully withdraw the cannula and aspirator together without depressing the buttons. Keep the instruments available in case re-aspiration is required.

**Step 8: Inspect tissue**

Empty the contents of the aspirator into an appropriate container by removing the cannula, if still connected, releasing the buttons, if not depressed, and gently pushing the plunger completely into the cylinder. Do not push aspirated contents through the cannula, as it will become contaminated. Keep the instruments ready in case further suction is required.

Inspect the tissue for these signs:

- The quantity and presence of products of conception (POC)
- Molar pregnancy

If the visual inspection is not conclusive, the material should be strained, immersed in water or vinegar, and viewed with light from beneath. If indicated, tissue specimen may also be sent to a pathology laboratory. Villi and decidua should be visible in the tissue and the amount of tissue should correspond to the uterine size. In cases of molar pregnancy, grape-like chorionic villi are usually seen. If no POC are visible, less tissue than expected was removed from the uterus or the tissue sample is inconclusive, this may indicate:

- A miscarriage that has already completed itself.

- Continuing incomplete miscarriage/abortion: The uterine cavity still contains POC, even though it appeared to be empty at the end of the procedure. This may result from using a cannula that is too small or stopping the procedure prematurely.

- Suspected ectopic pregnancy: When no villi or decidua are seen, ectopic pregnancy is a possibility and should be followed up on immediately.

- Anatomical anomaly: For example, in a bicorunate or septate uterus, the cannula may have been inserted into the side of the uterus that did not contain the pregnancy.
If it appears after tissue inspection that tissue may still be present in the uterus, re-evacuate the uterus. Wipe the cervix clear with a clean swab to assess the amount of blood still coming from the uterus or any other source before removing the speculum. If significant bleeding continues or other issues are identified, the provider should intervene as needed. (See Management of Complications section below.)

Use clinical judgment to determine if a bimanual exam will be necessary to check the size and firmness of the uterus.

**Step 9: Perform any concurrent procedures**

When the MVA procedure is complete, proceed with any contraceptive or other concurrent procedures to be conducted, such as inserting an IUCD or implant, performing female sterilization or repairing a cervical tear. An IUCD may be inserted immediately after an uncomplicated vacuum aspiration with no signs or symptoms of infection. Counseling and informed consent should always take place before the procedure for both the woman and her husband/partner if she chooses to include him. As per the Myanmar guidelines, female sterilization can only be performed if a woman has an approved sterilization form. (See Informed Consent, Information and Counseling module and Postabortion Contraceptive Counseling and Services module.)

**Step 10: Take immediate post-procedure steps, including instrument processing**

When the uterine evacuation and any additional procedures are complete, providers should take the following steps:

- Immediately process or discard all instruments, including the aspirator and cannula, according to instrument processing procedures. (Please see the MVA Instruments module.)
- Remove barriers, such as gloves, and wash hands.
- Reassure the woman that the procedure is finished.
- Help her into a comfortable resting position on the table.
- Assist with moving her to the recovery area.
- Record information about the procedure, according to local protocol.

**4.2 Special considerations: Young women**

Most aspects of providing postabortion care for young women are the same as for adult women, but there are some special considerations. This is likely a young woman’s first pelvic exam, and she may be nervous or afraid. Therefore, providers should take special care to:

- Ensure that there is at least visual and preferably auditory privacy;
- Explain what they are doing at each step;
- Perform the examination as gently and smoothly as possible: If a range of specula sizes are available, use the size appropriate to the woman and conducive to the exam or procedure.

A nulliparous woman is more likely to have a tight cervix and thus probably requires a slower dilation process. Although women of all ages need pain management, the perception of pain and use of analgesia has been found to be higher on average in younger women than in older women.
4.3 Solving instrument technical problems

The most common technical problem seen with MVA instruments is loss of vacuum. In most MVA procedures, the aspirator vacuum remains constant until the aspirator is approximately 80 percent, or 50mL, full. However, a decrease in vacuum may occur before the aspiration is complete for the following reasons:

- The aspirator is full
- The cannula is withdrawn past the external os
- The cannula becomes clogged
- Incorrect assembly

Aspirator is full
If the aspirator fills up so that suction stops:

- Depress the buttons.
- Disconnect the aspirator from the cannula, leaving the cannula in place inside the uterus.
- Either empty the aspirator into a container by pressing the buttons and pushing the plunger into the cylinder or replace the aspirator.
- Re-establish vacuum in the aspirator, reattach it to the cannula and resume the aspiration.

Note: Many clinicians keep a second prepared aspirator on hand during the procedure and switch aspirators if one becomes full.

Cannula is withdrawn prematurely
If the aperture of the cannula is accidentally withdrawn from the uterus beyond the external os, remove the cannula, taking care not to contaminate it through contact with the vaginal walls or other non-sterile surfaces:

- Detach the aspirator from the cannula, empty the aspirator, then re-establish vacuum.
- Reinsert the cannula if it has not been contaminated. If contamination has occurred, insert another sterile or HLD cannula.
- Reconnect the aspirator, release the vacuum and continue aspiration.

Cannula is clogged
If the cannula becomes clogged, a lack of tissue or bubbles flowing into the aspirator will be noted:

- Ease the cannula back toward, but not through, the cervical os. This movement will often unlog the cannula.
If this does not unclog the cannula:

- Depress the valve buttons and remove the cannula from the uterus, taking care to prevent contamination.
- Remove tissue from the opening in the cannula using sterile or HLD forceps.
- Reinsert the cannula using no-touch technique.
- Reattach the aspirator and continue the procedure.

_Caution:_ Never try to unclog the cannula by pushing the plunger back into the cylinder.

**Incorrect assembly**

If the aspirator does not seem to hold a vacuum at all, reassemble and test the vacuum of the instrument. Incorrect assembly is likely to cause loss of vacuum. (See Appendix G: Tips for using the Ipas MVA Plus and the MVA Instruments module.)

**5.0 Post-procedure care**

Post-procedure care includes all services provided after the medical procedures are complete but before a woman is released from the facility. It is necessary to ensure that any complications that occur before, during or immediately after medical care are identified and addressed. Post-procedure care provides an opportunity for the woman to obtain information about how to identify and seek treatment for complications that could arise after she has left the facility. It is also an excellent time to discuss and start contraception for women who choose it.

**5.1 Physical monitoring**

Immediately after the uterine aspiration procedure has been completed, the woman’s vital signs should be taken. She should then be allowed to rest and continue her recovery while being monitored until her baseline vital signs return. The length of the recovery period will vary depending on the woman’s condition, the ease of the procedure, the types of pain medication administered and any other procedures performed. The purpose of monitoring is to:

- Ensure adequate recovery from the procedure as well as from perioperative medications
- Detect and manage symptoms of post-procedure complications
- Provide counseling and referral for other reproductive-health needs, including contraceptive counseling and services
- Provide information about what to expect and what to do following discharge from the facility

_Take vital signs_
While the woman is recovering, the provider should closely monitor her physiological status, including vital signs, in accordance with facility protocols. The provider should evaluate the woman’s bleeding at least twice before she is discharged to confirm that bleeding and cramping have decreased. Methods include asking the woman to describe her bleeding, looking for blood on her clothes and assessing her appearance. Women who are experiencing excessive blood loss may appear pale and increasingly weak, possibly with diminished consciousness and abdominal pain. They may have a drop in blood pressure or increase in heart rate. Prolonged, severe cramping and excessive bleeding are not normal.

If any of the following symptoms are observed during the post-procedure period, the woman will either need to receive, or be referred for, immediate medical treatment:

- **Significant physical decline as reflected in vital signs or physiological status**
- **Dizziness, shortness of breath or fainting**: These symptoms may be caused by internal or external blood loss or a transient vasovagal reaction.
- **Severe vaginal bleeding**: While some post-procedure bleeding is expected, the amount of bleeding should decrease over time. Excessive bleeding may be a sign of an incomplete miscarriage/abortion, lack of normal uterine tone, cervical laceration or other complications.
- **Severe abdominal pain or cramps**: Some post-procedure cramping is normal, but the severity of cramping should decrease over time. Severe, prolonged cramping may be a sign of uterine perforation or hematometra, which is a pooling of blood in the uterus that can occur following uterine evacuation. Hematometra can present either immediately following the procedure or several days later. Signs of a hematometra include an enlarged, tender uterus. A woman who has a hematometra needs a repeat aspiration procedure.

### 5.2 Other health issues

If anemia is suspected or has been diagnosed, the provider should discuss dietary recommendations and nutritional supplements with the woman. Treatments for anemia include iron tablets and iron-rich foods such as green, leafy vegetables and red meat. See Section 3.5 for information about post-procedure pain management.

### 5.3 Emotional monitoring and support

Staff who work with women during the post-procedure period should be trained to assess and respond sensitively to each woman’s emotional state, and to monitor and provide care accordingly. Before discharge, the woman should be offered counseling support. The provider can refer her for other services, when appropriate, such as support services for women who have experienced violence. (Please see the Informed Consent, Information and Counseling module.)

### 5.4 Contraceptive counseling

Contraceptive counseling should be provided before the procedure and women should choose their desired method. In the recovery area, make sure that the woman knows how to use the method of contraception she has chosen and answer any of her questions. If she has not received contraceptive counseling before the procedure, it can be provided during the recovery period or prior to discharge. (See the Contraceptive Counseling and Services module.)
5.5 Recovery and discharge

For most women, the in-facility recovery period will last 30 minutes to an hour. The post-sedation protocols of each facility will differ, but full recovery generally means that the woman is awake, alert and able to walk without assistance, has normal vital signs, and agrees that she feels ready to leave. In addition, she should be showing signs of normal recovery from the uterine evacuation and any other procedures—for example, slowed bleeding and decreased abdominal pain.

The woman may be discharged as soon as she is physiologically stable and has received all necessary information about her follow-up care, and as per facility protocol. (Please see Appendix E: Discharge Information Sheet.)

Global evidence shows that a follow-up visit is not required following a routine uterine aspiration procedure. However, follow up may be required as per facility protocols. Some women may also desire follow-up for reassurance that the procedure was uncomplicated or to discuss contraception or other health issues. If protocols require or a woman desires follow-up, providers should schedule a visit before she leaves the facility.

Prior to discharge, the woman should receive post-procedure counseling and information, including:

- Instructions for taking any prescribed medications
- Information about resumption of sexual activity, return to fertility and contraception
- Signs of a normal recovery
- Signs and symptoms requiring immediate emergency attention (see Danger signs after uterine evacuation below)
- Written or graphic instructions for obtaining emergency care, with 24-hour contact information and emergency phone numbers, if available
- List of counseling and other services at the facility or in the community
- Date, time and location of follow-up visit if desired

Referrals for other reproductive and psychosocial needs are an essential part of postabortion care. Providers should ensure that when the woman leaves the facility she has all the information and referrals she needs to make informed choices about her health, fertility and care. (Please see Appendix D: Sample clinical referral form and the Informed Consent, Information and Counseling module.)

Typically routine follow-up after an uncomplicated MVA procedure is not necessary. However, if a facility’s protocol requires or if the woman desires follow-up care, a visit may be scheduled 1-2 weeks after the postabortion care visit.

**Danger signs after uterine evacuation**

Advise the woman to watch for signs and symptoms that require immediate medical care:

- Fever
- Chills
- Vomiting
- Fainting
- Severe pain
- Heavy bleeding (more than normal menstrual bleeding)
The following signs and symptoms should be monitored if they worsen rather than diminish over time:

- Prolonged cramping (more than a few days of abdominal pain, cramping or backache)
- Pain in the abdomen or distension of the abdomen
- Prolonged bleeding (more than two weeks of light bleeding)
- Odd or bad-smelling vaginal discharge
- Delay in resumption of menstrual periods (more than eight weeks)
- Dizziness

(Adapted from WHO 1995)

6.0 Management of Complications

When uterine evacuation is performed by a trained provider, procedural complications are infrequent. However, even in the most skilled hands, complications will occur. It is important to be prepared to diagnose complications and provide treatment quickly and safely. Complications can occur during uterine evacuation, during the recovery period or later, and facilities must have an established protocol to address this possibility. Complications may occur with both surgical and medical uterine evacuation methods. In most cases, complications can be managed successfully if treatment is initiated promptly. Serious complications are rare and can usually be treated by a trained clinician providing general emergency medical and surgical care. If emergency facilities are not available on site, complications should be managed through stabilization and the timely transfer of the woman to an acute-care facility.

6.1 Secondary assessment for underlying causes of shock

Shock can develop in any patient at any time during postabortion care, especially if significant injuries were not initially detected. Therefore, it is important to be alert for signs of developing shock throughout the woman’s treatment. Whenever signs of shock develop, health care workers should assess the stage and severity of shock immediately and take rapid action to keep her condition from worsening and save her life. Shock in postabortion care clients is usually either hemorrhagic or septic. Hemorrhagic shock is the result of severe blood loss, which may be caused by an incomplete miscarriage/abortion, uterine atony or vaginal, cervical, uterine or intra-abdominal injury. Septic shock is the end result of infection, which may come from incomplete miscarriage/abortion, endometritis or intra-abdominal injury. A history and directed physical exam with concurrent treatment should be done urgently for definitive management of underlying causes.

6.2 Incomplete evacuation

After uterine evacuation, some tissue may remain in the uterus. Large amounts of retained tissue can result in heavy bleeding and infection if untreated. If a woman has heavy bleeding or signs and symptoms of infection, the recommended treatment is immediate vacuum aspiration.

Symptoms and Signs

- Open os with products of conception and/or heavy bleeding;
- Enlarged uterus, with or without tenderness.
Management

- Manage shock as indicated (see Stabilization for Shock sidebar).
- Make sure the woman has adequate pain control, including paracervical block and oral or IV pain medication as needed if uterine aspiration is indicated.
- Give prophylactic or therapeutic antibiotics as indicated (please see the Clinical Assessment module).
- Provide uterine evacuation by one of these methods:
  - Vacuum aspiration if the woman has signs or symptoms of infection or has heavy bleeding or shock (please see the Uterine Evacuation Procedure with MVA Plus module).
  - Misoprostol if there are no contraindications (please see the Uterine Evacuation with Misoprostol module).
  - Close monitoring until the retained products are expelled if there are no contraindications. Small amounts of retained tissue may pass spontaneously without requiring further intervention.

6.3 Cervical or vaginal lacerations

Symptoms and Signs

- Vaginal bleeding
- Lacerations are visible on speculum exam

Management

- Make sure the woman has adequate pain control so the extent of the injury can be seen and the repair is adequate.
- For minor lacerations, apply pressure by clamping a ring forceps over the tear
- For lacerations requiring repair by suturing:
  - Apply local anesthetic to repair site; sedation may assist with ease of repair;
  - Ensure proper positioning and lighting;
  - Apply antiseptic solution to the cervix and vagina;
  - Grasp cervix gently with sponge or ring forceps;
  - Carefully inspect the entire cervix as there may be more than one laceration;
  - Starting at apex of tear, close tear with continuous absorbable suture. Use ring forceps to gently bring apex down if exposure is difficult;
  - Repair with laparotomy any tear that has extended deeply beyond vaginal vault or continues bleeding after suturing;
  - Vaginal packing may be used for emergent treatment of bleeding.
6.4 Uterine perforation with or without intra-abdominal injury

Uterine perforation can be life-threatening and prompt management is indicated because there is a high risk of infection and damage to other abdominal and pelvic organs (bowel, bladder and vessels). Bleeding may not be evident on pelvic exam but significant hemorrhage may be masked with intra-abdominal bleeding.

Rarely, perforation may happen during an aspiration procedure. The management depends on whether the aspiration procedure is complete, the size of the uterine injury and the presence of other intra-abdominal injuries.

**Symptoms and Signs**

Presenting:
- Woman reports a history of abortion with instrumentation;
- Distended and/or rigid abdomen with rebound and/or guarding;
- Signs or symptoms of sepsis and/or shock.

During the aspiration procedure:
- Instruments pass further than the expected size of the uterine cavity;
- Fat or bowel noted in the aspirate;
- Aspirator vacuum decreases;
- Woman complains of severe abdominal pain during or after the procedure;
- Sudden increase in bleeding or pain.

**Management**
- Shock management as indicated (please see Stabilization for Shock sidebar);
- If the perforation occurred during the aspiration, the woman is stable, there are no signs of intra-abdominal injury and the evacuation is complete:
  - Admit woman and closely observe for signs and symptoms of intra-abdominal injury or hemorrhage. This is appropriate only if the perforation occurred during the uterine aspiration and the provider feels confident that there were no other injuries;
- If the woman is unstable and/or there are signs of intra-abdominal injury;
  - Laparotomy or laparoscopy if available to diagnose and manage intra-abdominal injuries;
  - If the facility cannot manage the complication, the woman should be stabilized and transferred to a higher-level facility;
- If evacuation is not complete and there are signs of intra-abdominal injury:
  - Complete the evacuation under direct visualization (with laparotomy or laparoscopy, if available);
  - If laparotomy or laparoscopy is not possible, prepare for transfer to a higher-level facility;
- Repair any damage during the laparotomy or laparoscopy.
- Inspect the abdominal cavity carefully for any small injuries;
- If the uterus or cervix is beyond repair or bleeding cannot be controlled, hysterectomy may be necessary.
6.5 Uterine atony

Uterine atony is a condition in which the uterus loses muscle tone and does not stop bleeding. Women with atony will bleed heavily. This complication is more common in women who have had several children or who are later in pregnancy. Atony may be secondary to incomplete miscarriage/abortion or intrauterine clots (hematomata).

Symptoms and Signs

- Enlarged, soft boggy uterus
- Heavy bleeding
- May be secondary to incomplete miscarriage/abortion

Management

Management should be done step by step to control bleeding.

Providers should move quickly to the next step if bleeding is not controlled. Hysterectomy should be done only as a last resort.

- Conduct bimanual massage;
- Give uterotonics therapies (please see Uterotonics box);
- Proceed with uterine aspiration;
- Perform hysterectomy if bleeding cannot be stopped by other measures

Uterotonics

Therapies that may be given for bleeding or to stabilize a patient for transfer that have been used after vacuum aspiration or postpartum hemorrhage include:

- Oxytocin 20 units in 1L IV at a rate of 60 drops per minute, maximum of 3L of fluid
- Misoprostol 800mcg orally, rectally or sublingually as a single dose

6.6 Intrauterine infection and sepsis

Infection may occur after a uterine evacuation procedure if the miscarriage/abortion was incomplete, infection prevention was not followed, or if a woman had a pelvic infection at the time of uterine evacuation. Intrauterine infection (endometritis) can become a more generalized infection (sepsis or septic shock) if it is untreated.

Symptoms and Signs of intrauterine infection (endometritis)

- Lower pelvic or abdominal pain
- Fever and chills
- Uterine or lower abdominal tenderness on bimanual exam
- Cervical motion tenderness
- Unusual or bad smelling vaginal or cervical discharge
Symptoms and Signs of sepsis or septic shock

- Suspected infection plus Hypotension (SBP <90mmHg) plus
- One or more of the following:
  — Pulse >100 per minute
  — Respiratory rate >24 breaths per minute
  — Abnormal temperature (<36C or >38C)

Management of intrauterine infection (endometritis)

- Provide shock management as indicated (please see Stabilization for Shock sidebar);
- Begin broad spectrum antibiotics effective against gonorrhea and chlamydia:
  — Oral antibiotics may be used for mild to moderate cases;
  — Parenteral (IV) antibiotics for moderate to severe cases or women who are hospitalized or cannot tolerate oral regimens. 24-48 hours after clinical improvement is seen, the woman may be transitioned oral antibiotics for a total course of 14 days.

Broad spectrum antibiotics for sepsis

**Ampicillin** 2g IV every six hours
PLUS **Gentamicin** 5 mg/kg body weight IV every 24 hours
PLUS **Metronidazole** 500 mg IV every eight hours

Management of sepsis or septic shock

- Provide shock management as indicated (please see Stabilization for Shock in Clinical Assessment and Management of Miscarriage/Abortion and Complications Module);
- Begin broad-spectrum IV or IM antibiotics (please see Broad Spectrum Antibiotics box):
  — Continue antibiotics until the woman is afebrile for 48 hours;
  — Switch to oral antibiotics for a total of at least seven days of treatment;
- If this was an unsafe abortion and vaccination history is unknown:
  — Administer tetanus toxoid and tetanus antitoxin;
- For women with incomplete miscarriage/abortion:
  — Conduct an immediate uterine evacuation;
- For women with suspected intra-abdominal injury:
  — Conduct laparotomy with injury repair;
- For women not responding to treatment:
  — A hysterectomy may be necessary.

Tetanus

If an immunized woman has had an unsafe abortion, give her a booster injection of tetanus toxoid 0.5 mL IM. If she has not been immunized before, give her a booster injection of tetanus toxoid 0.5 mL IM after four weeks.
6.7 Hematometra

Hematometra is the accumulation of blood clots in the uterine cavity after aspiration. In such cases, the uterus cannot properly contract.

**Signs and symptoms**
- Enlarged, firm, tender uterus after vacuum aspiration
- Pelvic pressure
- Intense cramps and pain
- Lightheadedness
- Mild fever
- Scant vaginal bleeding

**Management**
- Re-aspiration

6.8 Vasovagal reaction

Vasovagal reaction is fainting as a result of vagal nerve stimulation during a procedure. A vasovagal reaction may occur when inserting an IV, drawing blood, giving medications or during the vacuum aspiration. In most cases, women will recover in less than a minute and will not require further treatment.

**Diagnosis:**
- Lightheadedness or dizziness
- Sweating
- Fainting
- Low blood pressure
- Low pulse

**Management**
- Lie the woman down and raise her legs up
- If prolonged, atropine 0.5mg IV

6.11 Discharge of women with complications

Providers should place particular emphasis on the importance of follow-up care. The woman must be

- Advised about her condition, including use of medications and contraceptive methods, and any follow-up care needed;
- Counseled about any life changes as a result of the complications and their treatment (for example, post-hysterectomy or bowel-perforation repair);
- Told what to expect and what to be concerned about, as well as what to do in an emergency situation and what not to do;
- Given written or illustrated materials about her condition.

If there are complications, the woman should return to the facility immediately. (See Danger signs in section 5.0. See also Appendix E: Discharge information sheet.)
6.12 Follow-up care

If the woman returns for follow-up care, the provider should:

1. Confirm success of the uterine evacuation:
   a. Ask how the woman has been feeling since the procedure, including her bleeding pattern and whether pregnancy symptoms have resolved or continued.
   b. Conduct a physical examination.
   c. If there is any doubt, the provider can conduct or refer for an ultrasound to look for a gestational sac or an ongoing pregnancy.

2. Stabilize, treat or refer for any acute problems and ensure that any earlier complications have been resolved.

3. Perform vacuum aspiration to complete the process in the case of a continuing incomplete miscarriage/abortion.

4. Inform the woman of what to expect following completion or continued treatment.

5. Review any laboratory tests results.

6. Provide a contraceptive method, if desired and not already provided.

7. Refer for other medical, gynecologic or counseling services where indicated.

7.0 Summary

- PAC treatment can be an emergency situation, and the woman’s condition can change quickly at any point during her care. The provider should remain alert for changes in the patient’s emotions and physiology throughout the procedure, as these changes may indicate complications.

- Women who are unstable due to hemorrhage or sepsis need to be stabilized and treatment started immediately. Treatment may require immediate uterine evacuation.

- Cervical dilatation is required in some cases.

- Pain management should be provided without delay, including paracervical block, to address pain due to cervical manipulation. Providers should always offer gentle, respectful care and provide appropriate information, which can help women stay calm and reduce anxiety and pain.

- An assessment of uterine size and position must be completed before performing a uterine evacuation procedure. Providers should not attempt a uterine evacuation until the size has been determined.

- Prophylactic antibiotics should be administered prior to the procedure.

- Pain and discomfort during an MVA procedure can be reduced using a combination of verbal support, oral medications, paracervical block, gentle clinical technique and calming environment.
- Cervical dilatation can be performed by using mechanical dilators, progressively larger MVA cannulae, or misoprostol. Dilatation is not needed when the cervix allows a cannula of appropriate size to fit snugly through the os. In cases over 12-14 weeks, cervical preparation is recommended for all women.

- Signs that indicate the uterus is empty include: red or pink foam appears and no more tissue is seen passing through the cannula; a gritty sensation is felt as the cannula passes over the surface of the evacuated uterus; the uterus contracts around (grips) the cannula; the woman complains of or notes pain, indicating that the uterus is contracting.

- Evacuated tissue should be inspected for quantity and the presence of POC and signs of complete evacuation or molar pregnancy.

- No visible POC, a lower quantity of tissue than expected or an inconclusive tissue sample may indicate completed miscarriage, continuing incomplete miscarriage-abortion, suspected ectopic pregnancy or anatomical anomaly.

- Instrument technical problems that can occur during an MVA procedure include a full aspirator, a cannula that is clogged or withdrawn prematurely, or a loss of vacuum due to incorrect assembly.

- Women may suffer complications during or after postabortion care.

- The purpose of post-procedure monitoring is to ensure that the woman is recovering well, to detect and manage any complications, to offer counseling and referrals and to provide the woman with discharge instructions and information.

- Facility protocols may require follow up 1-2 weeks after vacuum aspiration, or a woman may desire a follow-up visit for reassurance that she is well after a procedure. Global evidence shows that follow-up for a routine vacuum aspiration procedure is not necessary as long as she has good information about when to seek care for an emergency and has been provided with her chosen contraception.

- Referral protocols and resource lists that provide simple, accurate and up-to-date information are essential components of an effective referral system.

- It is essential to provide information that can help the woman identify and seek attention for any danger signs that may appear after she has left the facility.

- Every woman should be offered contraceptive counseling and, if desired, a contraceptive method or referral before being discharged from the facility.

References

Pain Management


Postabortion Care Reference Manual


Surgical Management of PAC
MVA Procedure


Post-Procedure Care


Follow-Up Care


# Appendix A: Pharmacologic approaches to pain management during MVA

**Pain medication**

<table>
<thead>
<tr>
<th>Drug Type</th>
<th>Generic Drug Name</th>
<th>Dose and Timing</th>
<th>Half-life</th>
<th>Side Effects</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NSAID</strong></td>
<td>Ibuprofen</td>
<td>oral: 400 to 800mg one hour before the procedure</td>
<td>4-6 hours</td>
<td>Possible gastrointestinal upset</td>
<td>Do not use in women with active peptic ulcer disease or renal failure.</td>
</tr>
<tr>
<td></td>
<td>Naproxen</td>
<td>oral: 550mg one hour before the procedure</td>
<td>4-6 hours</td>
<td>Possible gastrointestinal upset</td>
<td>Do not use in women with active peptic ulcer disease or renal failure.</td>
</tr>
<tr>
<td></td>
<td>Ketorolac</td>
<td>oral: 20mg one hour before procedure IV: 30mg over at least 15 seconds 30 to 60 minutes before procedure IM: 60mg 30 to 60 minutes before procedure For women less than 50kg, all doses should be halved</td>
<td>4-6 hours</td>
<td></td>
<td>Single dose IM ketorolac prior to surgery may reduce opioid use and post-operative pain (de Oliveira 2012, Roche 2012). Do not use in women with active peptic ulcer disease, renal failure, breastfeeding or sensitivity to other NSAIDs. Breakthrough pain should be managed with narcotics rather than increasing ketorolac beyond the recommended doses.</td>
</tr>
<tr>
<td><strong>Analgesic</strong></td>
<td>Paracetamol</td>
<td>oral: 500 to 1000mg 30 to 60 minutes before procedure</td>
<td>3-6 hours</td>
<td></td>
<td>Not a first-line pain medication for first trimester vacuum aspiration or UEUE with medical methods. May be used as an antipyretic. Liver toxicity from overdose (maximum dose = 4000mg/day) is a risk.</td>
</tr>
<tr>
<td><strong>Narcotic/analgesic combination</strong></td>
<td>Paracetamol 300mg + codeine 30mg</td>
<td>oral: 1-2 tablets one hour before procedure</td>
<td>3-6 hours</td>
<td>Drowsiness, light-headedness, nausea and vomiting, CNS and respiratory depression</td>
<td>If respiration is compromised, assist with breathing (airway management, oxygen and ambu bag) and reverse with naloxone (see below). Be aware of combining with other paracetamol containing products. Liver toxicity from overdose of paracetamol (maximum dose = 4000mg/day).</td>
</tr>
<tr>
<td>Drug Type</td>
<td>Generic Drug Name</td>
<td>Dose and Timing</td>
<td>Halflife</td>
<td>Side Effects</td>
<td>Comments</td>
</tr>
<tr>
<td>----------------------------</td>
<td>---------------------------------------------</td>
<td>------------------------------------------------------</td>
<td>----------</td>
<td>-------------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Narcotic/analgesic combination</td>
<td>Paracetamol 500mg + hydrocodone 5mg</td>
<td>oral: 1-2 tablets one hour before procedure</td>
<td>4-6 hours</td>
<td>Drowsiness, light-headedness, nausea and vomiting, CNS and respiratory depression</td>
<td>If respiration is compromised, assist with breathing (airway management, oxygen and ambu bag) and reverse with naloxone (see below). Be aware of combining with other paracetamol containing products. Liver toxicity from overdose of paracetamol (maximum dose = 4000mg/day).</td>
</tr>
<tr>
<td>Narcotic</td>
<td>Meperidine</td>
<td>oral: 100-150mg 30 to 60 minutes before procedure IV: 25-50mg 5-15 minutes prior to procedure IM/SC: 50-100mg 30 to 90 minutes prior to procedure</td>
<td>4-6 hours</td>
<td>Drowsiness, light-headedness, nausea and vomiting, CNS and respiratory depression, hypotension, seizures</td>
<td>If respiration is compromised, assist with breathing (airway management, oxygen and ambu bag) and reverse with naloxone (see below). More rapid onset and shorter duration of action than morphine. Meperidine 60-80mg = morphine 10mg</td>
</tr>
<tr>
<td>Fentanyl</td>
<td>IV: 50-100mcg immediately before procedure (may repeat every 10-15 minutes, not to exceed 250mcg) IM: 50-100mcg 30 to 60 minutes before procedure</td>
<td>30-60 minutes</td>
<td></td>
<td>Drowsiness, light-headedness, weakness, bradycardia, CNS and respiratory depression, hypotension, seizures</td>
<td>If respiration is compromised, assist with breathing (airway management, oxygen and ambu bag) and reverse with naloxone (see below). More rapid onset and shorter duration of action than meperidine Fentanyl 100mcg = meperidine 75mg = morphine 10mg Onset of action is 2-7 minutes when given IV.</td>
</tr>
<tr>
<td>Tramadol</td>
<td>IV/IM: 50-100mg 15-30 minutes prior to procedure Oral/suppository: 50-100mg 60-90 minutes prior to procedure</td>
<td>4-6 hours</td>
<td></td>
<td>Drowsiness, light-headedness, weakness, sweating, fatigue, seizures</td>
<td>If respiration is compromised, assist with breathing (airway management, oxygen and ambu bag) and reverse with naloxone (see below). Less respiratory depression than morphine or meperidine Tramadol 100mg = morphine 10mg</td>
</tr>
</tbody>
</table>

(continued on next page)
## Appendix A: Pharmacologic approaches to pain management during MVA

<table>
<thead>
<tr>
<th>Drug Type</th>
<th>Generic Drug Name</th>
<th>Dose and Timing</th>
<th>Half-life</th>
<th>Side Effects</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anxiolytic Benzodiazepine</td>
<td>Diazepam</td>
<td>oral: 10mg one hour before procedure IV: 2-5mg IV 20 minutes before procedure</td>
<td>21-37 hours</td>
<td>Blurred vision, dizziness, disorientation, pain and redness on injection, CNS and respiratory depression</td>
<td>If respiration is compromised, assist with breathing (airway management, oxygen and ambu bag) and reverse with flumazenil (see below). Has a mild amnestic effect. Onset of action is 2-10 minutes when given IV.</td>
</tr>
<tr>
<td></td>
<td>Midazolam</td>
<td>IV: 1-2mg immediately before the procedure then 0.5-1mg IV every five minutes as needed, not to exceed 5 mg IM: 0.07-0.08mg/ kg or about 5mg up to one hour before procedure</td>
<td>1-4 hours</td>
<td>Blurred vision, dizziness, disorientation, CNS and respiratory depression</td>
<td>If respiration is compromised, assist with breathing (airway management, oxygen and ambu bag) and reverse with flumazenil (see below). Midazolam 2.5mg = diazepam 10mg Stronger amnestic effect than diazepam. Onset of action is 1-5 minutes when given IV and 15-30 minutes when given IM.</td>
</tr>
<tr>
<td></td>
<td>Lorazepam</td>
<td>oral: 1-2mg 30-60 minutes before procedure IV: 2mg given over one minute before the procedure IM: 0.05mg/kg up to a maximum of 4mg within 2 hours before the procedure</td>
<td>14 hours</td>
<td>Blurred vision, dizziness, disorientation, CNS and respiratory depression</td>
<td>If respiration is compromised, assist with breathing (airway management, oxygen and ambu bag) and reverse with flumazenil (see below). Amnestic effect. Occasionally may increase patient anxiety.</td>
</tr>
<tr>
<td>Reversal agent for narcotic</td>
<td>Naloxone</td>
<td>IV: 0.4mg vial mixed in 10mL saline. Give 1mL (40mcg/mL) every two minutes until reversal is seen</td>
<td></td>
<td></td>
<td>Naloxone’s duration of action is one hour and may wear off before the narcotic. Therefore, patients treated with naloxone must be monitored closely for several hours. Maintain airway and respirations while giving naloxone.</td>
</tr>
</tbody>
</table>

124 Surgical Management of PAC
<table>
<thead>
<tr>
<th>Drug Type</th>
<th>Generic Drug Name</th>
<th>Dose and Timing</th>
<th>Half-life</th>
<th>Side Effects</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reversal agent for benzodiazepine</td>
<td>Flumazenil</td>
<td>IV: 0.2mg every minute until respirations return. Do not exceed 1mg.</td>
<td></td>
<td></td>
<td>Flumazenil's duration of action is one hour and may wear off before the benzodiazepine. Therefore, patients treated with flumazenil must be monitored closely for several hours. In the event of overdose with narcotic and benzodiazepine, reverse the narcotic first with naloxone and use flumazenil subsequently if needed. Maintain airway and respirations while giving naloxone.</td>
</tr>
</tbody>
</table>

References


Appendix B: Equipment and supplies for uterine evacuation procedure with Ipas MVA Plus

☐ Personal protective barriers such as gloves, face protection
☐ Examination table with stirrups
☐ Strong light
☐ Ipas MVA Plus aspirator
☐ Lubricant for aspirator
☐ Selection of Ipas EasyGrip cannulae
☐ Speculum q. Tenaculum
☐ Small cup with sponge clamp and gauze
☐ Tapered mechanical dilators (Pratt or Denniston) or cannulae of increasing sizes
☐ 10 - 20cc syringe
☐ #20 - 23 gauge spinal or hypodermic needle or needle from IV insertion set
☐ Sponge stick with gauze
☐ Medium basin
☐ Smooth forceps
☐ Strainer
☐ Clear basin
☐ Betadine® or other non-alcohol based antiseptic
☐ Xylocaine 0.5% without epinephrine (for paracervical block)
Appendix C: Cervical preparation before first-trimester vacuum aspiration

Cervical preparation is recommended before vacuum aspiration for all women over 12-14 weeks. Providers may offer cervical preparation before 12-14 weeks but do not need to use it routinely. In the first-trimester, women with cervical preparation have decreased procedure time and a decreased risk of incomplete miscarriage/abortion compared to women without cervical preparation. However, because first-trimester vacuum aspiration is so safe, it is not known whether cervical preparation decreases the risk of serious complications like injuries to the cervix and uterus.

Women experience side-effects from the medicine or dilators including increased pain, bleeding and nausea. Cervical preparation increases the complexity, cost and time needed to perform a uterine evacuation... These disadvantages must be weighed against the benefits of cervical preparation. For women at higher risk of complications (young women, nulliparous women, women with cervical abnormalities, or women at later gestational ages) or inexperienced providers, there may be a benefit from cervical preparation even before 12-14 weeks gestation.

The following table shows choices for cervical preparation. The choice depends on availability, expense, convenience and preference. If misoprostol is used, vaginal misoprostol has fewer systemic side-effects than sublingual misoprostol. Misoprostol should not be given more than three hours before a uterine evacuation as it increases the risk that a woman will expel her pregnancy before the procedure can occur.

<table>
<thead>
<tr>
<th>Dose</th>
<th>Route</th>
<th>Timing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Misoprostol</td>
<td>400mcg vaginally</td>
<td>3 hours before the procedure</td>
</tr>
<tr>
<td>Misoprostol</td>
<td>400mcg sublingually</td>
<td>2 to 3 hours before the procedure</td>
</tr>
</tbody>
</table>
Appendix D: Sample clinical referral form

Referrals:
The following form or one similar should be completed for any woman who is referred for care to another health-care facility. Because the form describes the woman's confidential medical information, including her history, the provider should ask her if she feels comfortable taking the form with her. If so, the woman should bring the form to the referral facility; if not, the provider should find an alternate means of ensuring that the referral facility receives the information.

Name and contact information of referral center or provider:

Client information
Name: ________________________________ Age: ________________________________

Reason for referral (include only pertinent medical history in “History” section below) __

___ Contraceptive services ___ Counseling ___ Screening/treatment for sexually transmitted infection

___ Screening for cancer ___ Violence support services

___ Other health or social services(specify __)

___ Treatment (include all pertinent information below)

Diagnosis: ________________________________

History (reproductive history including number of pregnancies, births, etc):

Clinical condition (vital signs, findings of physical/pelvic examinations):

Initial treatment (fluids, drugs, procedures, any other medical steps taken):

Assessment of woman’s condition/other information:

______________________________ ________________________________
Health professional (print name) Location (hospital, clinic)

______________________________ ________________________________
Signature Date
Appendix E: Discharge information sheet

How to take care of yourself

• Resume normal activities only when you feel comfortable doing so.
• Eat according to your normal customs and diet.
• Showering, tub bathing and swimming are permitted.
• Correctly and completely take the medications that you have been given:
  ____________________________ is for pain and discomfort.
  Take ____ pill(s) every ____ hour(s), as needed.

Other medications: ____________________________

• Call the clinic (telephone number: ________________) or come in before then if you have concerns.
• If you have received a contraceptive method, start using it right away. It is possible to become pregnant almost immediately after a uterine evacuation. If you did not receive a contraceptive method but would like to use one, see your provider as soon as possible. In the meantime, abstain from sexual intercourse or use condoms to prevent pregnancy.

What to avoid

• Do not have sex until your contraceptive method has had a chance to take effect, if you wish to avoid becoming pregnant. Avoid using a vaginal sponge, diaphragm or cervical cap until all bleeding has stopped.
• Do not douche for one week after the procedure. Routine douching is not recommended unless prescribed by your clinician.

What is normal

• Bleeding and cramping similar to a normal period for up to one week; spotting may occur for up to several weeks.
• Mild fatigue for a few days.
• There is no “normal” emotional reaction to a uterine evacuation procedure. Some women feel a sense of relief, while other women feel sad. If you experience strong emotions, it may help to talk with a trusted friend, relative or provider about these feelings.

Seek care immediately if you experience any of these abnormal symptoms.

What is abnormal?

• Fever
• Abdominal pain
• Nausea, vomiting
• Vaginal discharge that smells bad
• Dizziness, lightheadedness or fainting
• Severe cramping
• Bleeding that is much heavier than a normal period

(Applied from Engender Health, 2002b and Policar et al., 1999)
Appendix F: Sample follow-up visit medical form (if indicated)

Name ____________________________________________

Date____________________________________________

Contact information
________________________________________________

Uterine Evacuation; Evacuation using vacuum aspiration:

Date of procedure ___________________ Name of provider and facility _____________________________

Medical

Date of administration: misoprostol ____________________________

Interview

Current bleeding?
Yes __ No __ Amount ________ Duration _________

Clots?
Yes __ No __ Size ________ Bright blood _________

Current pain/cramps?
Yes __ No __ Location ____ Mild _____ Moderate _____ Severe _____ Duration __________________________

Pain medication?
Yes __ No __ When ________ Relief __________________________________

Fever?
Yes __ No __ When ________ How long___________

Highest temperature ________

Antibiotic prescribed? Yes __ No __

If so, antibiotic prescription completed?
Yes __ No __ If no, why not ____________________________

Current contraception?
Yes __ No __ If yes, what type ____________________________
If so, satisfied with method? Yes ___ No ___

Emotional status:
How does the woman say she feels at this point?

______________________________

______________________________

Uterus: size ___ weeks ___ tenderness ___
Cervix: motion tenderness? Yes ___ No ___
Abdomen: soft/not tender? Yes ___ No ___
Adnexa: tenderness? Yes ___ No ___
Mass? Yes ___ No ___
Speculum exam done? Yes ___ No ___
Pulse ___________ Temperature ___________ Blood pressure ___________
Hgb/Hct ___________ Other lab results ___________

Comments:

______________________________

Plan:

______________________________

Re-evacuation procedure (if applicable)
Re-evacuation procedure notes:

______________________________

Follow-up
Medication ordered:

______________________________

Referrals (if applicable)
Reason and referring facility:

(Adapted from Hern, 1984 and Paul, 1999)
Appendix G: Tips for using the Ipas MVA Plus

Cap removal
With one hand, press down on the cap release tabs; with the other hand, pull the cap off.

Opening the valve body
Remove valve body from the cylinder. Place right thumb along side the right valve button and left thumb on the valve latch. With the left thumb, pull up and to the left on the valve latch while pushing down and out on the valve body with the right thumb.

Aspirator assembly
When assembling the aspirator, push the cylinder straight into the valve. Do not twist the barrel or valve when assembling as this will cause the liner to dislodge and may lead to device failure.
Removal and insertion of Ipas EasyGrip cannula
If cannula removal is necessary during the procedure: Stabilize the cannula by grasping it at the base with one hand and holding it steady; with the other hand, hold the aspirator by the valve body, rotate the aspirator and gently separate it from the cannula. To insert the cannula, hold the aspirator by the valve body (not the cylinder), push cannula base in firmly, twisting slightly if necessary.

Reassembly of Ipas aspirators
Place the valve liner in position inside the valve by aligning the internal ridges. Close the valve until it snaps in place. Snap the cap into place on the end of the valve.

When processing the aspirator with liquid agents, make sure the parts are rinsed thoroughly in boiled/sterile water. When processing agents are allowed to dry on the devices, the plunger does not move easily in the cylinder. When chlorine is not rinsed sufficiently, it may also cause the valve hinges to wear prematurely.

When the cylinder becomes cloudy or pitted due to processing, soak the cylinder for a few minutes in vinegar, then clean the inside with a soft brush. Rinse in clean water.

Devices must be completely disassembled prior to cleaning. It is important to remove the O-ring from the plunger prior to cleaning and make sure lubricants are removed during cleaning.
Appendix G: Tips for using the Ipas MVA Plus (continued)

Solving technical problems during the MVA procedure
The most common technical problem seen with MVA instruments is loss of vacuum. In most MVA procedures, the aspirator vacuum remains constant until the aspirator is approximately 80 percent, or 50mL, full. However, a decrease in vacuum may occur before the aspiration is complete for the following reasons:

- The aspirator is full.
- The cannula is withdrawn past the external os.
- The cannula becomes clogged.
- Incorrect assembly.

If the aspirator fills up so that suction stops:

- Depress the buttons.
- Disconnect the aspirator from the cannula, leaving the cannula in place inside the uterus.
- Either empty the aspirator into a container by pressing the buttons and pushing the plunger into the cylinder or replace the aspirator.
- Re-establish vacuum in the aspirator, reattach it to the cannula and resume the aspiration.

Note: Many clinicians keep a second prepared aspirator on hand during the procedure and switch aspirators if one becomes full.

If the cannula becomes clogged, a lack of tissue or bubbles flowing into the aspirator will be noted:

- Ease the cannula back toward, but not through, the cervical os. This movement will often unclog the cannula.

If this does not unclog the cannula:

- Depress the valve buttons and remove the cannula from the uterus, taking care to prevent contamination.
- Remove tissue from the opening in the cannula using sterile or HLD forceps.
- Reinsert the cannula using no-touch technique.
- Reattach the aspirator and continue the procedure.

Caution: Never try to unclog the cannula by pushing the plunger back into the cylinder.
Appendix G: Tips for using the Ipas MVA Plus *(continued)*

If the aperture of the cannula is accidentally withdrawn from the uterus beyond the external os, remove the cannula, taking care not to contaminate it through contact with the vaginal walls or other non-sterile surfaces:

- Detach the aspirator from the cannula, empty the aspirator, then re-establish vacuum.
- Reinsert the cannula if it has not been contaminated.
  - If contamination has occurred, insert another sterile or HLD cannula.
- Reconnect the aspirator, release the vacuum and continue aspiration.

Other reasons why the aspirator might not hold a vacuum are:

- Incorrect assembly
- A defective aspirator
- The need for a larger cannula to create a tighter seal in the cervix
Module 8: Medical Management of PAC

Key topics in this module:

- Clinical assessment for eligibility requirements and contraindications
- Essential information for clients
- Regimens using misoprostol
- Expected effects, side effects and potential complications
- Pain-management approaches and medication regimens
- Post-procedure care
- Follow-up care

1.0 Introduction

Misoprostol can be used for uterine evacuation for women with incomplete or missed miscarriage/abortion. This module focuses on misoprostol for incomplete miscarriage/abortion. It also includes information on misoprostol for missed miscarriage.
Misoprostol stimulates uterine contractions and causes expulsion of uterine contents. It is inexpensive, stable at room temperature and available in many countries. For treatment of incomplete miscarriage/abortion, misoprostol can be used up to a uterine size of 12 weeks. When the recommended regimens are used, misoprostol for incomplete miscarriage/abortion successfully evacuates the uterus in more than 90 percent of cases.

2.0 Clinical assessment for eligibility requirements and contraindications

Clinical assessment prior to misoprostol for incomplete miscarriage/abortion includes gestational dating, assessment of uterine size, assessment of the woman’s general health and any contraindications or precautions. (Please see the Clinical Assessment and Management of Miscarriage/Abortion and Complications module.)

Diagnose and accurately date the pregnancy

Determine a woman’s gestational age based on her last menstrual period. Check uterine size by bimanual exam. Uterine size may be smaller than her stated gestational age because the pregnancy has stopped developing or she has passed all or some of the products of conception. Eligibility for misoprostol for incomplete miscarriage/abortion is based on uterine size. The regimens described here are for use up to 12 weeks uterine size.

Eligibility, contraindications and precautions for misoprostol for incomplete miscarriage/abortion

Eligibility:

- Open cervical os
- Vaginal bleeding or history of vaginal bleeding during the pregnancy
- Uterine size up to 12 weeks

Contraindications:

- Previous allergic reaction to misoprostol or other prostaglandin
- Known or suspected ectopic pregnancy
- Signs of pelvic infection and/or sepsis
- Hemodynamic instability or shock

Precautions:

- **IUCD in place:** Evaluate for the presence of ectopic pregnancy. If none, remove the IUCD.
- **Severe/unstable health problems including but not limited to hemorrhagic disorders, heart disease, severe anemia:** No evidence exists on the use of misoprostol in women with hemorrhagic disorder, heart disease, severe anemia or severe/ unstable health problems. Whether to provide misoprostol for uterine evacuation to women with these conditions will depend on the available options for referrals and clinical judgment. If misoprostol is given, it should be given under close observation.
Please see Appendix A: Clinical flow chart for a graphic of the process of clinical assessment and subsequent care using misoprostol for postabortion care.

3.0 Essential information for clients

Counseling and choice of methods

- Offer different options of uterine evacuation and help her choose the method.
- Obtain informed consent (Please see the Informed Consent, Information and Counseling module)
- Discuss her contraceptive needs (See the Postabortion Contraceptive Counselling and Services module)

For a woman who chooses medical management, the process should be explained and her contraceptive needs discussed.

Explaining the process to women

Before taking any medications, the woman should receive instructions about what she may experience, what pills to take, when and how to take them, when to follow up, and when and where to seek medical help in case of a problem. Because some words are probably unfamiliar to her (such as sublingual), providers should use simple language such as “under the tongue” and can even provide drawings to visually aid her in understanding how medications should be taken either at home or in the facility.

The provider should explain the expected effects and possible side effects of misoprostol, including pain, cramping and bleeding, and how she can manage her pain and any side effects - these are discussed in Sections 5.1 and 5.2. What is expelled will be different depending on the stage of the incomplete miscarriage/abortion. Most women will see only blood and clots, some of which may be large. Women may simply flush expelled products down the toilet or dispose of sanitary pads as they would after a normal menstrual period.

Thorough information on what the woman might expect helps her to be prepared. Reassurance and support during the uterine evacuation process, either by clinic staff or a person at home, can also be helpful.

Contraceptive needs

After uterine evacuation with misoprostol, a woman may have vaginal intercourse when she feels comfortable doing so. Because ovulation can occur soon after a uterine evacuation, almost all methods of contraception can be initiated immediately following medical or surgical evacuation to women who want to prevent or delay pregnancy. All women who do not wish to become pregnant should leave the facility with an effective method of contraception. If a woman desires long acting contraception or sterilization but it cannot be provided, an interim method should be given and referral made to the appropriate facility. (Please see the Postabortion Contraceptive Counseling and Services module.)

4.0 Recommended regimen of misoprostol for incomplete miscarriage/abortion
There are two regimens for use of misoprostol to treat incomplete miscarriage-abortion. They have similar safety and efficacy and have been shown in clinical studies to be effective at evacuating the uterus over 90 percent of the time. Success rates of misoprostol for incomplete miscarriage-abortion increase with longer follow-up times. If a woman returns for follow-up after misoprostol and is still symptomatic, she may be offered vacuum aspiration. If she is stable, expectant management or a repeat dose of misoprostol may also be offered.

Table 8.1: Misoprostol for incomplete miscarriage-abortion up to 12 weeks uterine size

<table>
<thead>
<tr>
<th>Dose</th>
<th>Route</th>
<th>Timing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Misoprostol 600mcg (three 200mcg pills)</td>
<td>Oral</td>
<td>Single dose</td>
</tr>
<tr>
<td>Misoprostol 400mcg (two 200mcg pills)</td>
<td>Sublingual</td>
<td>Single dose</td>
</tr>
</tbody>
</table>

Sublingual use of misoprostol

Misoprostol for missed miscarriage

A single dose of misoprostol 800mcg vaginally results in successful uterine evacuation in more than 80 percent of women. Some studies have used repeat doses of misoprostol 800mcg vaginally after 24 or 72 hours with a resulting increase in the complete uterine evacuation rates. However, it is unclear whether the increase in complete uterine evacuation is due to the additional prostaglandin dose or the increased time to evaluation. When women are managed expectantly after a single dose of misoprostol, their complete uterine evacuation rates increase over time. Misoprostol 600mcg sublingually repeated every three hours for a maximum of two more doses achieves similar success rates.

Table 8-2: Misoprostol for missed miscarriage

<table>
<thead>
<tr>
<th>Dose</th>
<th>Route</th>
<th>Timing</th>
</tr>
</thead>
<tbody>
<tr>
<td>800mcg</td>
<td>Vaginally</td>
<td>Single dose</td>
</tr>
<tr>
<td>600mcg</td>
<td>Sublingually</td>
<td>Every three hours for a maximum of three doses (1800mcg)</td>
</tr>
</tbody>
</table>

4.1 Administration of misoprostol

The provider should give misoprostol only after the woman has received the following information:
The two options for the route, dosage and timing of misoprostol administration and that sublingual or oral are recommended routes throughout the first trimester.

- When and how to take the medication;
- What she should expect to feel and see in the uterine evacuation process;
- Warning signs and what to monitor as potential problems;
- Who to contact in case of questions or an emergency;
- Which pain-management drugs to take.

**Routes of Administration**

Oral use of misoprostol

- Swallow three pills (600mcg).

Sublingual use of misoprostol

- Place two pills (400mcg) under the tongue.
- After 30 minutes, swallow the remaining pill fragments.

**4.2 Day Care Management of Misoprostol for PAC**

After taking misoprostol, the woman may wait at the clinic for approximately 4 to 6 hours, depending on how long it takes the uterine contents to expel. A woman whose process has not completed within that time may remain longer in hospital waiting for expulsion, or she may return to her home if she has transportation and can seek follow-up care if necessary. The management may need to be individualized depending on the women’s ease of access to health facilities (distance from hospital) and her expectations. She will need to be re-assessed after 24 hours and counseled on the progress of the process and the management options.

Clinics may have rooms with beds or curtained cubicles or, more commonly, a room that has several cots or reclining chairs and a toilet nearby. Women do not need to be restricted to beds but can move around the clinic if they prefer. Depending on space and the ability to ensure the confidentiality of all the women receiving services, facilities should also consider allowing each woman to have her husband/partner or a support person with her during this time. A clinician or counselor should be available to answer questions and to address any medical concerns.

Staff should provide pain medication and hot-water bottles or warm cloths, if possible, to relieve discomfort from cramping. Expelled tissue does not need to be observed by a clinician to confirm a complete process if the expulsion process is completed at home.

If the woman leaves the clinic before uterine evacuation is complete, providers should:

- Give her instructions and supplies relevant to completing the process at home.
- Provide her with pain medication to take home.
- Review instructions and provide information on signs of a successful uterine evacuation with misoprostol, as well as warning signs of complications or an unsuccessful evacuation. Give her emergency contact information for the clinic.
- Provide a contraceptive method if desired.
Inform her that she can return to the clinic anytime if she desires follow-up care. If she wants reassurance that the evacuation was successful, she should return after two weeks.

5.0 Expected effects, side effects and potential complications

Once a woman takes misoprostol, the process may feel like an intense menstrual period or similar to a spontaneous miscarriage. The normal, expected effects — vaginal bleeding and cramping — should be distinguished from side effects of the medication or warning signs of true complications.

5.1 Expected Effects

Pain and cramping
Most women will experience lower abdominal pain and cramping during a uterine evacuation with misoprostol, which may be stronger than that typically experienced during a menstrual period because contractions are needed to expel the uterine contents. Cramping usually begins within the first few hours after taking misoprostol. As the uterus contracts and its contents are expelled through the cervix, women generally feel some degree of cramping, which will soon diminish. Women’s experience of pain is highly individual, which makes it impossible to predict how much pain a particular woman will experience. Young women, women who have never been pregnant, and women with painful periods may experience increased pain.

Vaginal bleeding
Vaginal bleeding, often accompanied by passage of clots, is usually heavier than a menstrual period but sometimes may be lighter. If she is not already bleeding, bleeding usually starts within one hour after taking misoprostol and tends to decrease after the uterine contents have been expelled. The average duration of bleeding is 5-8 days but may continue up to two weeks. Spotting may continue until the next menstrual period.

5.2 Side effects

The following side effects associated with misoprostol use are expected within the first 24 hours:

- Nausea
- Vomiting
- Diarrhea
- Fever, warmth or chills
- Headache
- Weakness
- Dizziness

Most of these side effects are mild and self-limited and can be treated at home. However, women who complain of prolonged or severe side effects that continue to occur 24 hours after medications should be evaluated. (Please see Complications section below.)
5.3 Complications

Side effects and complications often happen on a continuum. For example, all women will experience bleeding, some women will experience prolonged bleeding that is an annoyance but is not harmful and very few women will experience heavy bleeding that requires further medical or surgical intervention. Actual complications are rare. For misoprostol for incomplete miscarriage/abortion, these include ongoing bleeding, excessive bleeding and infection.

When counseling women before uterine evacuation with medical methods, it is important to give them information about how to tell the difference between a side effect that can be taken care of at home with supportive care and a complication that needs medical attention. Women should contact their provider immediately if they experience:

- **Excessive bleeding**: Soaking more than two sanitary pads per hour for two consecutive hours, especially if accompanied by prolonged dizziness, lightheadedness and increasing fatigue;
- **Fever**: A temperature of 38°C (100.4°F) that occurs any day after the day misoprostol is taken;
- **Unusual or bad-smelling vaginal discharge**: Especially if accompanied by severe cramps or abdominal pain;
- **Severe abdominal pain**: Occurs any day after the day misoprostol is taken;
- **Feeling very sick**: With or without fever, and persistent severe nausea or vomiting after the day misoprostol is used.

Women who experience complications need clear, evidence-based explanations of the situation and should be included in decision making about their treatment options. Fears about complications, perhaps compounded by pain, can add to the emotional stress that may accompany the uterine evacuation process. Most women cope better with their situation when they receive accurate, thorough information and have the opportunity to ask questions and express their feelings.

Although persistent side effects and serious complications are rare, clinic staff must be able to provide timely treatment or make appropriate referrals. If ultrasound is not routinely used in clinics that offer misoprostol for incomplete miscarriage/abortion or missed miscarriage, a referral system for ultrasound services should be established to evaluate any questionable or troublesome cases that may occur. An alternative method, preferably vacuum aspiration, should be available on-site or through referral as back up for failed uterine evacuation with misoprostol.

(Please see Appendix E: Discharge information sheet and Appendix D: Sample clinical referral form in the Surgical Management of PACmodule.)

5.3.1 Management of specific complications

**Secondary assessment for underlying causes of shock**

Shock can develop in any patient at any time during postabortion care, especially if significant injuries were not initially detected. Therefore, it is important to be alert for signs of developing shock throughout the woman’s treatment. Whenever signs of shock develop, health care workers should assess the stage and severity of shock immediately and take rapid action to keep her condition from worsening and save her life. Shock in postabortion care clients is usually either hemorrhagic or septic. Hemorrhagic shock is the result of severe blood loss, which may be caused by an incomplete miscarriage/abortion, uterine atony or vaginal, cervical, uterine or intra-abdominal injury. Septic shock is the end result of infection, which may come from incomplete
miscarry/abortion, endometritis or intra-abdominal injury. A history and directed physical exam with concurrent treatment should be done urgently for definitive management of underlying causes.

**Incomplete evacuation**

After uterine evacuation, some tissue may remain in the uterus. Large amounts of retained tissue can result in heavy bleeding and infection if untreated. If a woman has heavy bleeding or signs and symptoms of infection, the recommended treatment is immediate vacuum aspiration.

**Symptoms and Signs**

- Open os with products of conception and/or heavy bleeding;
- Enlarged uterus, with or without tenderness.

**Management**

- Manage shock as indicated (please see Stabilization for Shock in Clinical Assessment and Management of Miscarriage/Abortion and Complications module).
- Make sure the woman has adequate pain control, including paracervical block and oral or IV pain medication as needed if uterine aspiration is indicated.
- Give prophylactic or therapeutic antibiotics as indicated (please see Stabilization for Shock in the Clinical Assessment and Management of Miscarriage/Abortion and Complications module).
- Provide uterine evacuation by one of these methods:
  - Vacuum aspiration if the woman has signs or symptoms of infection or has heavy bleeding or shock (please see the Surgical Management of PAC module).
  - Misoprostol if there are no contraindications.
  - Close monitoring until the retained products are expelled if there are no contraindications. Small amounts of retained tissue may pass spontaneously without requiring further intervention.

**Intrauterine infection and sepsis**

Infection may occur after a uterine evacuation procedure if the miscarriage/abortion was incomplete, infection prevention was not followed, or if a woman had a pelvic infection at the time of uterine evacuation. Intrauterine infection (endometritis) can become a more generalized infection (sepsis or septic shock) if it is untreated.
**Symptoms and signs of intrauterine infection (endometritis)**
- Lower pelvic or abdominal pain
- Fever and chills
- Uterine or lower abdominal tenderness on bimanual exam
- Cervical motion tenderness
- Unusual or bad-smelling vaginal or cervical discharge

**Symptoms and signs of sepsis or septic shock**
- Suspected infection plus
- Hypotension (SBP <90mmHg) plus
- One or more of the following:
  - Pulse >100 per minute
  - Respiratory rate >24 breaths per minute
  - Abnormal temperature (<36C or >38C)

**Management of intrauterine infection (endometritis)**
- Provide shock management as indicated (please see Stabilization for Shock in Clinical Assessment and Management of Miscarriage/Abortion and Complications Module).
- Begin broad-spectrum antibiotics effective against gonorrhea and chlamydia.
  - Oral antibiotics may be used for mild to moderate cases
  - Parenteral (IV) antibiotics for moderate to severe cases or women who are hospitalized or cannot tolerate oral regimens. 24-48 hours after clinical improvement is seen, the woman may be transitioned oral antibiotics for a total course of 14 days

**Broad spectrum antibiotics for intrauterine infection**

**Oral regimen:**
- Ceftriaxone 250 mg IM in a single dose
- PLus Doxycycline 100 mg orally twice a day for 14 days WITH or WITHOUT
- Metronidazole 500 mg orally twice a day for 14 days

**Parenteral (IV) regimen:**
- Cefotetan 2 g IV every 12 hours OR
- Cefoxitin 2 g IV every 6 hours PLUS
- Doxycycline 100 mg orally or IV every 12 hours

**Note:** additional antibiotic regimens may also be used, details at http://www.cdc.gov/std/treatment/2010/ pid.htm

**Broad spectrum antibiotics for sepsis**
- Ampicillin 2g IV every six hours
- PLUS Gentamicin 5 mg/kg body weight IV every 24 hours
- PLUS Metronidazole 500 mg IV every eight hours

**Management of sepsis or septic shock**
- Provide shock management as indicated (please see Stabilization for Shock in Clinical Assessment and Management of Miscarriage/Abortion and Complications Module);
- Begin broad-spectrum IV or IM antibiotics (please see Broad Spectrum Antibiotics box):
  - Continue antibiotics until the woman is afebrile for 48 hours;
  - Switch to oral antibiotics for a total of at least seven days of treatment;
- If this was an unsafe abortion and vaccination history is unknown:

**Tetanus**
If an immunized woman has had an unsafe abortion, give her a booster injection of tetanus toxoid 0.5 mL IM. If she has not been immunized before, give her a booster injection of tetanus toxoid 0.5 mL IM after four weeks.
— Administer tetanus toxoid and tetanus antitoxin;
• For women with incomplete miscarriage/abortion:
  — Conduct an immediate uterine evacuation;
• For women with suspected intra-abdominal injury:
  — Conduct laparotomy with injury repair;
• For women not responding to treatment:
  — A hysterectomy may be necessary.

Persistent pain
A woman with intense, persistent pain after taking misoprostol should be evaluated for:
• Pregnancy tissue trapped in the os
• Ectopic pregnancy
• Upper reproductive tract infection

Symptoms and signs
• History of pain that persists for longer than 4-6 hours after taking misoprostol or intense pain unrelieved with ibuprofen and mild narcotics
• Pregnancy tissue trapped in the os discovered during bimanual or speculum exam
• Signs and symptoms of upper reproductive tract infection
• Signs and symptoms suggestive of ectopic pregnancy (see Clinical Assessment and Management of Miscarriage /Abortion and Complications)

Management
• If pregnancy tissue is trapped in the os:
• Grasp with ring forceps and gently remove.
• If a woman has signs and symptoms of an infection, see section above.
• If ectopic pregnancy is suspected, see Clinical Assessment and Management of Miscarriage /Abortion and Complications.

Allergic reactions
Allergic reactions to misoprostol are rare, but have been reported occasionally. A severe allergic reaction is very rare but can occur with any medicine, food or substance.

Symptoms and Signs
• Swelling of the hands or feet
• Rashes
- Wheezing
- Sudden shortness of breath or swelling of the airway
- Any other severe or unusual reaction

**Management**

- Minor allergic reactions can be managed conventionally, for example with an antihistamine.
- Women with severe reactions should receive emergency treatment.

**6.0 Pain Management Approaches**

Most women find pain related to uterine evacuation with misoprostol to be manageable, especially if they are prepared for the range of pain they might experience and take pain medicines as advised. Women should be provided with pain medication or a prescription at their first clinic visit.

**Pharmacological Methods**

The best regimen for pain control for uterine evacuation with misoprostol has not been established. In related research, NSAIDs have been found to be more effective than paracetamol. If providers choose to use paracetamol anyway, they should ensure the dose of paracetamol does not exceed 4 grams in a 24-hour period to avoid liver toxicity. Ibuprofen can be given with misoprostol or once cramping starts. Narcotic analgesics are another option for pain control although the optimal drug, dose and timing are not known. One potential strategy is to provide women with NSAIDs and narcotic analgesics and advise them to begin with NSAIDs either with misoprostol or once cramping starts and alternate the two medications if she continues to experience pain.

**Non-pharmacological Methods**

In addition to medications, other methods that may help women manage pain during the process are thorough counseling, a supportive environment and applying a heating pad or hot water bottle to the lower abdomen. Music is effective for pain management during vacuum aspiration and may be helpful for uterine evacuation with misoprostol as well. These methods are complementary but not adequate substitutes for pain management with medications.

Providers should be aware that young women may be more susceptible to pain and take necessary measures to reduce pain and improve a young woman’s experience.

(Please see Appendix A: Pharmacologic approaches to pain management during MVA in the Surgical Management of PAC module.)

**7.0 Instructions prior to leaving the health facility and post-procedure care**

Before leaving the health facility, the woman should receive instructions about what is normal for uterine evacuation with misoprostol, what pills to take, when and how to take them, when to follow up, and when and where to seek medical help in case of a problem. Because some words are probably
unfamiliar to her (such as sublingual), providers should use simple language and can provide drawings to visually aid her in understanding how medications should be taken.

A pamphlet, card, or handout summarizing these points is often useful. A woman who is unable to read may still find it useful to take written instructions with her; she may have someone read it to her if she has questions. Pictorial resources for women who cannot read, such as illustrated guides outlining the misoprostol regimen, side effects, and possible complications, may be very helpful. (Please see Appendix B: Brochures for women for sample take-home instructional brochures on misoprostol for incomplete miscarriage-abortion.)

Information for women should include:

- Regimen and effectiveness
- What she will experience
- How long the process typically takes
- The signs of a successful uterine evacuation
- Expected effects, potential side effects and complications
- Warning signs to seek help
- Ensuring access to emergency care
- Contraceptive needs
- When and where to obtain follow-up care if necessary

In settings with telephones, contact information should be provided so the woman can call any time with questions or concerns. In some locations, a return to the health facility may be the only way for the woman to access a clinician to assess her situation. Local referrals closer to a woman’s home may be given in advance if the woman lives far from the clinic. Utilizing community health nurses or other community-based health workers or organizations can be a good source of local support and information for women, as long as they are well informed about medical methods and care. (Please see the Clinical Assessment and Management of Miscarriage/Abortion and Complications and Community Linkages modules.)

### 8.0 Follow-up care

A routine follow-up visit after misoprostol for incomplete miscarriage-abortion is usually not necessary. If a woman is concerned about ongoing bleeding or other problems, she may return at any time. If a woman desires reassurance after the process, she may return in approximately two weeks to confirm that the process was successful, or to receive additional desired services.

If the woman returns for follow-up care, the provider should:

1. Inquire about the woman’s experience with the process.
2. Confirm success of the process:
   a. Take a history of the process, amount and duration of bleeding, cramping and passage of clots;
   b. Conduct a physical examination;
c. If there is any doubt, the provider can conduct or refer for an ultrasound to look for tissue in the uterus.

3. Perform vacuum aspiration to complete the process if uterine evacuation was not successful.

4. Inform the woman of what to expect following completion or continued treatment.

5. Review any laboratory tests results.

6. Provide a contraceptive method, if desired and not already provided.

**9.0 Summary**

- Eligibility criteria for misoprostol for incomplete miscarriage-abortion are: open cervical os, vaginal bleeding or a history of vaginal bleeding during the pregnancy and uterine size less than 12 weeks.

- Contraindications for uterine evacuation with misoprostol include:
  - Hemodynamic instability or shock
  - Signs of pelvic infection and/or sepsis
  - Previous allergic reaction to misoprostol or other prostaglandin
  - Known or suspected ectopic pregnancy

- Following MPAC, fertility returns quickly. Therefore if a woman wants to avoid pregnancy, contraception should be discussed when she presents for postabortion care.

- Women receiving misoprostol for uterine evacuation are likely to experience pain, cramping and bleeding. They may experience side effects from misoprostol such as nausea or fever and chills. Providers should offer pain management to women using MPAC.

- After misoprostol for incomplete miscarriage-abortion, bleeding will be similar to a woman’s period and may continue for days.

- The dose of misoprostol for incomplete miscarriage-abortion is a single dose of 400mcg sublingually or 600mcg orally.

- The dose of misoprostol for missed miscarriage is a single dose of 800 mcg vaginally or 600 mcg sublingually every three hours for a maximum of three doses.

- If the initial dose fails and the woman is clinically stable, the misoprostol dose may be repeated. Other options include expectant management or provision of vacuum aspiration.

- Counseling includes the discussion of: basic information about uterine evacuation with misoprostol; risks and benefits, side effects and complications.

- Preparation prior to administering misoprostol includes: counseling and obtaining informed consent; performing a client assessment, including physical examination; confirming that the woman knows what to do if there is an emergency; and discussing her contraceptive needs.

- Before every physical examination or the administration of medication, it is important to make sure the woman knows what to expect and feels encouraged to express her concerns, questions and feelings.
• Thoroughly and accurately confirming the uterine size and ruling out ectopic pregnancy is key to safe, effective uterine evacuation with misoprostol.
• Appropriate facilities and staff support should be available to women who remain in the clinic during the process.
• Heavy vaginal bleeding and cramping are expected and normal components of uterine evacuation with misoprostol. Other side effects include nausea, diarrhea, vomiting, fever, warmth or chills, headache and dizziness.
• Both non-narcotic and narcotic analgesics can be used to treat pain associated with uterine evacuation with misoprostol.
• Although serious complications are rare, complications that can occur include remaining tissue in uterus, hemorrhage, infection and undiagnosed ectopic pregnancy, among others.
• Before leaving the clinic, the woman should know the expected side effects of misoprostol; the warning signs for potential complications; and when and where to seek medical help.

References


Appendix A: Clinical flow chart

This clinical flow chart can be used to provide a general overview of the key components of postabortion care service provision.

Woman presenting with signs and symptoms of incomplete miscarriage-abortion

Eligible for MPAC
- O pencervicalos
- V aginal bleeding
- U terine size under 12 weeks LMP

Ineligible for MPAC
- Known allergy to misoprostol or other prostaglandins
- Confirmed or suspected ectopic pregnancy
- Signs of sepsis or active pelvic inflammatory disease
- Hemodynamic instability or shock

Counseling for informed decision-making
- Available methods
- Contraception

Refer for further assessment or emergency treatment

Perform MVA
- Administer misoprostol 600 mcg orally (single dose) OR 400 mcg sublingually

Carry out expectant management

Provide follow-up

Appendix B: Brochures for women
This tool is intended to be given by clinicians to women. It is recommended that facilities pick one route for misoprostol administration that they believe will be most acceptable to communities and easiest to administer. In addition, these materials should be adapted for your local setting. *

Using misoprostol pills to treat incomplete miscarriage/abortion
oral use

**TREATMENT OF INCOMPLETE ABORTION/ MISCARRIAGE WITH MISOPROSTOL PILLS**
If you are having an incomplete miscarriage/abortion, you can be treated safely and effectively with misoprostol pills.

**WHAT WILL HAPPEN WHEN YOU TAKE THE PILLS?**
Misoprostol causes the uterus to contract. You will have some vaginal bleeding and cramping and you may see blood clots.

**MANY WOMEN DO NOT HAVE SIDE EFFECTS**
But some women may experience fever, chills, nausea and diarrhea. These should go away on their own in a few hours.

**HOW TO TAKE MISOPROSTOL PILLS**
Swallow 3 pills (600mcg) with water.

*For technical assistance regarding material adaption, please contact misoforpac@ipas.org*
Appendix B: Brochures for women

Using misoprostol pills to treat incomplete miscarriage/abortion
oral use

HOW CAN YOU MANAGE THE SIDE EFFECTS?
You can take pain medicines for cramps. Fever medicines are rarely needed. Drinking lots of water and getting rest will also help. Most side effects will disappear on their own in a short time.

WHAT IS THE BEST CONTRACEPTIVE METHOD FOR ME?
You are able to get pregnant again within a couple of weeks. If you would like contraception, it should be started immediately. You can start most methods at the same time you take your misoprostol tablets.

WHEN SHOULD YOU SEEK HELP FROM A HEALTH-CARE PROVIDER?
You should seek immediate help if you have:
- Heavy bleeding
- Fever which lasts more than a day or starts any day after the day you take misoprostol
- Constant cramping and pain that does not get better with medication, rest, or heating pad
- The feeling of being very sick

WHEN SHOULD I COME BACK FOR FOLLOW-UP?
A routine follow-up visit is usually not necessary. If your experience the warning signs or have other concerns, return at any time. If you would like to confirm that the process was successful, you may return in approximately two weeks.

DATE OF YOUR FOLLOW-UP VISIT:

LOCATION:

PHONE:
Appendix B: Brochures for women

Using misoprostol pills to treat incomplete miscarriage/abortion
sublingual use

TREATMENT OF INCOMPLETE ABORTION/ MISCARRIAGE WITH MISOPROSTOL PILLS
If you are having an incomplete miscarriage/abortion, you can be treated safely and effectively with misoprostol pills.

WHAT WILL HAPPEN WHEN YOU TAKE THE PILLS?
Misoprostol causes the uterus to contract. You will have some vaginal bleeding and cramping and you may see blood clots.

CRAMPING

BLEEDING

MANY WOMEN DO NOT HAVE SIDE EFFECTS
But some women may experience fever, chills, nausea and diarrhea. These should go away on their own in a few hours.

DIARRHEA

VOMITING / NAUSEA

FEVER / CHILLS

HOW TO TAKE MISOPROSTOL PILLS
Place 2 misoprostol pills (400mcg) under your tongue. Keep pills under tongue until they melt, or for about 30 minutes, then swallow whatever is left.
Appendix B: Brochures for Women

Using misoprostol pills to treat incomplete miscarriage/abortion

Sublingual use

HOW CAN YOU MANAGE THE SIDE EFFECTS?
You can take pain medicines for cramps. Fever medicines are rarely needed. Drinking lots of water and getting rest will also help. Most side effects will disappear on their own in a short time.

WHAT IS THE BEST CONTRACEPTIVE METHOD FOR ME?
You are able to get pregnant again within a couple of weeks. If you would like contraception, it should be started immediately. You can start most methods at the same time you take your misoprostol tablets.

WHEN SHOULD YOU SEEK HELP FROM A HEALTH-CARE PROVIDER?
You should seek immediate help if you have:
- Heavy bleeding
- Fever which lasts more than a day or starts any day after the day you take misoprostol
- Constant cramping and pain that does not get better with medication, rest, or heating pad
- The feeling of being very sick

WHEN SHOULD I COME BACK FOR FOLLOW-UP?
A routine follow-up visit is usually not necessary. If your experience the warning signs or have other concerns, return at any time. If you would like to confirm that the process was successful, you may return in approximately two weeks.

DATE OF YOUR FOLLOW-UP VISIT: ____________________________

LOCATION: ____________________________

PHONE: ____________________________
Appendix C: Misoprostol product quality

This information below is excerpted from Ipas’ Clinical Updates in Reproductive Health and adapted as appendix to this manual.

Recommendation:
Because different misoprostol products have varying quality and can degrade over time, providers should track misoprostol for postabortion (MPAC) success rates to ensure that they are using an effective product. Providers should store misoprostol in a cool dry place.

Strength of recommendation: Strong

Quality of evidence: Low

Last reviewed: November 25, 2013

Background
With the increasing use of misoprostol for reproductive health indications, there are concerns about the quality of misoprostol products. If misoprostol degrades, it may lead to unsuccessful treatment of incomplete miscarriage-abortion and postpartum hemorrhage. A technical memo distributed by Pathfinder International reported that Misotac, a brand of misoprostol manufactured by Sigma, was recalled because batches of the medicine had degraded and no longer contained a sufficient amount of the active ingredient (Pathfinder, 2011).

Differences in quality related to manufacturing
There are at least 30-40 manufacturers of misoprostol worldwide and some manufacturers subcontract, which makes it difficult to enforce Good Manufacturing Practice and ensure quality across all brands (Hall, 2011). Although misoprostol is thought to be stable at normal room temperature, the active pharmaceutical ingredient (misoprostol oil) used in manufacturing must be stored below -20°C. Thus, exposure to heat and humidity during manufacturing, packaging and storage may compromise the quality of misoprostol (Cayman Chemical, 2012).

A 2011 study analyzed 76 misoprostol samples from countries all over the world (Hall, 2011). Two types of misoprostol contained the drug diclofenac and were excluded from analysis. When the remaining 74 samples were tested for content and purity, eight of the 200mcg tablets contained less than 40mcg of active ingredient. The analysis found that three factors influenced misoprostol integrity: 1) impact of moisture at all stages 2) manufacture and quality of the active pharmaceutical ingredient and 3) packaging. Misoprostol that was packaged in double-aluminum blister packs (aluminum on top and bottom) was found to retain the most active ingredient.

Misoprostol brands that have been approved by the European Union or the United States Food and Drug Administration are known to conform to Good Manufacturing Practice and are high quality. The United Nations Population Fund (UNFPA) has added misoprostol to its list of commodities which
are available through long-term agreement. UNFPA is committed to procuring products which meet specified requirements and standards, according to internationally recognized quality standards.

Clinic use and storage
Even misoprostol manufactured in high-quality conditions and packaged well can become inactive if it is shipped or stored in conditions that expose it to heat or humidity for prolonged periods of time. There have not been large field studies on the stability of misoprostol in tropical climates, but laboratory studies show that misoprostol is less stable when exposed to moisture or heat (Chu, Wang, Pang & Rogers, 2007; WHO, 2009). Even in normal room temperature conditions (25°C and 60 percent humidity), when providers cut blister packs to distribute tablets, if the packaging on the remaining stored tablets is inadvertently opened, the tablets’ potency degrades within 48 hours and continues to degrade over time (Berard & Fiala, 2012).

Quality assurance
If providers notice a sudden decrease in MPAC success rates from expected baseline, they should discard the lot of misoprostol being used and start a new lot. Providers should consult with each other to determine which local misoprostol brands are most effective. Store misoprostol in dry conditions at temperatures at or below 25°C (77°F) (Pfizer, 2002).

References


Module 9: Postabortion Contraceptive Counseling and Services

Key topics in this module:

- Postabortion contraceptive counseling and method provision
- Service delivery models
- Effective contraceptive counseling
- Medical appropriateness of contraceptive methods following a uterine evacuation
- Emergency contraception (EC)
- Specialized situations for counseling or referrals

1.0 Introduction

All women should receive contraceptive information and be offered counseling for and methods of postabortion contraception, including emergency contraception, before leaving the health-care facility.
Key facts about contraceptive care:

- All women receiving postabortion care are at a critical juncture in their reproductive lives and can benefit from compassionate counseling about their contraceptive options.
- Effective contraceptive methods, where they are made widely available and consistently used, can help women prevent unwanted pregnancies and therefore significantly decrease the rate of unsafe abortion.
- Every woman, including young women, presenting for postabortion care should be offered contraceptive counseling and a range of contraceptive methods.
- A woman may ovulate as early as 10 days after a uterine evacuation. Because ovulation can occur almost immediately after a uterine evacuation, contraception should be provided immediately to women who want to prevent or delay pregnancy.

“If a woman comes to a hospital with an incomplete abortion, we’ve already failed once to help her avoid an unwanted or a mistimed pregnancy. If she leaves the facility without having any means of preventing another pregnancy in the future that may not be wanted, we’ve failed her twice.”

—Cynthia Steele Verme, Postabortion Care (PAC) Consortium

This module explains why contraceptive counseling and method provision are critical parts of postabortion care. It also addresses how to successfully counsel women so that those who wish to use contraception will be able to choose a method appropriate to their needs and use that method effectively.

### 2.0 Contraceptive counseling and method provision after postabortion care

The goal of contraceptive counseling is to help a woman decide if she wants to prevent pregnancy in the short or long term and assist her in choosing an appropriate contraceptive method. In woman-centered contraceptive counseling, providers focus on each woman’s unique needs, reproductive intentions, life circumstances and clinical condition.

Contraceptive use can promote women’s health and rights by:

- Allowing mothers to achieve spacing between births and the desired family size, which improves infant health and saves infant lives.
- Improving women’s quality of life by allowing her to be in control of her reproductive health including the number and timing of her children.
- Helping women avoid unwanted pregnancies, which prevents unnecessary exposure to potential risks during pregnancy and delivery.

Postabortion contraceptive services are effective when they are based on individual women’s needs. Contraceptive counseling should help each woman assess her situation and needs and make an informed decision for herself. Contraceptive use is most effective when the woman has been informed about the advantages, risks, side effects, and likelihood of success of all appropriate options and their alternatives.

### 3.0 Models of service delivery

Contraceptive counseling and method provision can take place at various points and in different ways during postabortion services. Service-delivery models include:
• Providers who work in the area of the facility where postabortion care is provided can offer counseling and method provision. This method of service delivery can reduce barriers to access. If contraceptive services cannot be provided in the same area as postabortion care, arrangements should be made to help women easily access the area where contraceptive services are provided.

• Counseling can be provided at the facility where postabortion care is provided with referrals to another facility where women can obtain contraceptive methods which are not available at the first facility.

• Women can go to another clinic (for example, private sector) for services if they wish.

• Trained individuals such as village health volunteers or staff of community-based organizations can offer community-based contraceptive counseling. Certain methods are provided by these volunteers or the midwife.

Providing contraceptive services at the same time and in the same location as the postabortion care can help ensure that a woman receives a contraceptive method before leaving the facility. If a woman is eligible and has consented to the method, all methods of contraception may be started at the same time as a vacuum aspiration. If a couple has already applied and was approved for female sterilization, she can undergo sterilization. If a couple wishes to apply for sterilization, they should be counseled and informed of the eligibility criteria and the procedures for application. In the meantime, she should be offered a temporary method of contraception that they would like to use. If a woman chooses MPAC, most methods of contraception can be provided with the medication. After taking misoprostol for postabortion care, an IUCD may be inserted when it is reasonably certain that a woman is no longer pregnant. (Please see Table 9-1 in Section 8.1 for more information.)

4.0 Women’s contraceptive needs following postabortion care

Although some women who come for postabortion care may want to become pregnant again soon, some desire contraception to prevent or delay another pregnancy. A provider may begin by asking whether and when the woman wants to become pregnant again and if she desires contraception.

A woman’s ability to use contraception successfully may not always be in her control. Providers should empathetically help each woman assess her own situation, consider which method might help her prevent a future unwanted pregnancy, and discuss possible solutions to challenges she may have using contraception. In some cases, discreet long acting methods that do not require daily adherence such as IUCDs or implants may be more effective and may help increase her successful use of contraception. Providers need to avoid blaming women for not preventing past unwanted pregnancies, as this can lead to women’s reluctance to seek services in the future. Providers should also be aware of cultural attitudes and beliefs that may influence a woman’s use of contraception, particularly young women.

4.1 Contraceptive failure

Providers will encounter women who have experienced contraceptive failure. Contraceptive failure happens for several reasons:

Failure of the contraceptive:

• No method is 100% effective. Even when a modern method of contraception is used correctly and consistently, some women will become pregnant.

Failure to use the method or failure to use it correctly or consistently for various reasons such as:
Postabortion Care Reference Manual

- Forgetting to use a method consistently
- Not being able to afford contraceptives on a regular basis
- Stopping use due to unwanted side effects or misunderstandings about effects on fertility or health
- Sex was non-consensual

There are also health-system-related failures that can result in women not being able to access or correctly use contraceptive methods, including:

- The provider did not adequately explain how to use the method.
- Limited access to birth spacing services for populations living in hard-to-reach areas.
- Unreliable supply/stock-outs of women’s preferred methods.
- Contraceptive service locations and times are not convenient.

In facilities where contraceptive services are not offered, providers must ensure that every woman receiving postabortion care knows:

- Ovulation, and thus pregnancy, can occur almost immediately after a uterine evacuation
- In general, all methods of contraception can be used immediately following a uterine evacuation
- Where she can obtain contraceptive services and methods, including emergency contraception (EC). EC pills are available in the private sector, but not all public sector facilities. However, if a physician writes a prescription, the woman can buy it from the private sector, from private pharmacies.

Providers must ensure that every woman receiving postabortion care knows:

- Ovulation, and thus pregnancy, can occur almost immediately after a uterine evacuation.
- In general, all methods of contraception can be used immediately following a uterine evacuation.
- When she can obtain contraceptive services and methods including emergency contraception (EC).

5.0 Rights to privacy, confidentiality and informed choice

Privacy and confidentiality are essential in health service delivery, especially in postabortion care settings.

Providers should follow professional protocols that protect confidentiality. This includes not releasing the woman’s information without her consent and not discussing her situation in the presence of others.

All women, including young women, have the right to make a free and informed choice about the contraceptive method she will use. Acceptance of contraception or of a specific method should never be a prerequisite for obtaining postabortion care. Free and informed choice means that a woman chooses a method voluntarily, without coercion or pressure. It requires that she have a variety of methods to choose from and a clear understanding of the benefits and risks of each method.
6.0 Involvement of husband/partner

The inclusion of husbands/partners in contraceptive counseling can increase the effectiveness of the counseling. Husbands/male partners’ support of contraception is a strong predictor of contraceptive use. Counseling husbands/male partners can increase their awareness and use of male condoms.

If the woman’s husband/partner wants to be included in the contraceptive counseling process, the provider should first meet alone with the woman to determine if she wants the husband/partner involved. If a woman does not want her husband/partner involved, she should be counseled and given the method privately and no information from the visit should be shared with her husband/partner.

If the woman’s husband/partner does not approve of contraception but the woman still wants to use it, the provider can help her select a method that does not require her husband/partner’s cooperation, such as an injectable, implant or IUCD. The provider should also discuss possible consequences, such as violence, if the woman’s husband/partner learns of her contraceptive use. If appropriate, the provider should help the woman explore how she would protect herself in such an event and should provide referrals to appropriate services. For female sterilization, both the woman and the husband should be counseled about the clinical and administrative procedures.

7.0 Essential steps for contraceptive counseling

A provider who counsels effectively does more than describe the various contraceptive methods available; he or she establishes trust with the woman, comes to understand her needs and tailors the counseling session to meet those needs. Contraceptive counseling requires an open exchange of information that can only occur in an atmosphere of mutual respect.

The following steps have been adapted from the GATHER technique, a widely used approach in contraceptive services.

Greet and establish rapport

Secure a private space to talk, greet the woman in a friendly way, speak directly to her and demonstrate interest and concern.

- Ask if it is an appropriate time to discuss contraception, assure her that the conversation will be kept confidential and ask if she wants her partner present.

Ask the woman

- Ask the woman about her needs. Using open-ended questions, determine if the pregnancy was unplanned.

- If she was using contraception, ask her to explain how failure occurred. Explain human reproduction, if necessary.

- Find out if she desires to delay or prevent future pregnancy:
  - Some women may not be interested in delaying pregnancy. For these women, contraceptive counseling and information on the benefits of spacing children may still be useful for future reference, or if a delay in pregnancy is medically recommended.
  - Many women desire contraception to prevent or delay another pregnancy.

- Consider the woman’s clinical condition and her personal situation.
Tell the woman about characteristics of available methods

- Determine which contraceptive methods are available and accessible at the facility and in the community.
- Explain characteristics, side effects and effectiveness of the methods available, and direct her to accessible places to obtain them.

Help the woman choose her method

- Support the woman in selecting the contraceptive method that best suits her and her partner.
- Solicit follow-up questions, explaining the characteristics of different methods and exploring resupply issues, including where contraceptives may be available in her community.
- Discuss potential barriers to successful use of contraception and explore ways to overcome them.

Explain how the method works

- Ensure she understands how the method works.
- Help her develop a plan for continued use.

Return for follow-up care and refer to other resources

- Encourage her to return if she has concerns or problems with her method, the method becomes unacceptable, if she wants to change methods, if she needs re-supply or if she wishes to stop using contraception.
- Discussions about contraception may reveal other factors affecting a woman's reproductive health

(Refer to Module 4: Informed Consent, Information and Counseling)

8.0 Medical eligibility for contraceptive use after a uterine evacuation

When providing contraception to a woman, her medical eligibility for each method must be considered. In general, all modern contraceptive methods can be used by women, including young women, immediately following uterine evacuation, provided that:

- There are no severe complications requiring further treatment.
- The woman receives adequate counseling and gives informed consent.
- The provider screens for any precautions for using a particular contraceptive method.

There are some notes of caution:

- Women should not have sexual intercourse until any medical complications are resolved and their chosen contraceptive method becomes effective.
- Fertility-awareness based methods should only be started after the resumption of regular menses.
• Some medical conditions require a delay in the use of certain methods. Another contraceptive method should be offered to the woman for use in the interim.

• Tubectomy/female sterilization can be performed if approval for sterilization has been obtained from a sterilization board. If the patient and her husband would like to apply for sterilization, following counseling, the procedures should be explained.

8.1 Uncomplicated vacuum aspiration

All modern contraceptive methods can be used immediately.

8.2 Vacuum aspiration with complications

In cases where an infection is evident or presumed, the provider should advise the woman to avoid intercourse until the infection is resolved or ruled out. All methods of contraception can be given after a uterine evacuation complicated by an infection, except for the intrauterine device and female sterilization. An intrauterine device may be inserted or sterilization performed once the infection is resolved.

While not medical eligibility contraindications, providers need to take genital injuries or excessive blood loss into consideration. Genital injury includes uterine perforations, cervical tears, vaginal trauma and lacerations. These injuries may require a delay in the use of certain contraceptive methods. Methods that may be temporarily restricted include female sterilization, IUCD, spermicides and barrier methods other than the male condom.

Excessive blood loss may require a delay in the use of female sterilization and IUCDs, depending on the severity of the loss. For sterilization, delay is recommended if laboratory tests or clinical signs indicate anemia.

8.3 Uncomplicated uterine evacuation with MPAC

Medical eligibility after MPAC is not different from that of vacuum aspiration.

Most modern hormonal contraceptive methods can be used immediately with MPAC, provided that there are no contraindications. This recommendation is based on expert opinion. Delaying provision of contraceptive methods puts women at risk of unintended pregnancy. A woman who wants contraception should be provided her preferred method as soon as possible.
Table 9-1: When to start contraception after misoprostol

<table>
<thead>
<tr>
<th>Contraceptive method</th>
<th>Initiation timing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral contraceptive pills, contraceptive ring and patch</td>
<td>With misoprostol</td>
</tr>
<tr>
<td>Implant</td>
<td>With misoprostol</td>
</tr>
<tr>
<td>Injection</td>
<td>With misoprostol</td>
</tr>
<tr>
<td>IUCD</td>
<td>As soon as reasonably sure woman is no longer pregnant</td>
</tr>
<tr>
<td>Tubectomy/Female Sterilization</td>
<td>As soon as reasonably sure woman is no longer pregnant and after approval obtained from a Sterilization Board</td>
</tr>
<tr>
<td>Fertility awareness-based methods</td>
<td>Should only be started after the resumption of regular periods</td>
</tr>
</tbody>
</table>

NOTES:

- Long-term contraceptives such as IUCDs and implants have been found to be more effective in preventing future pregnancies and have higher satisfaction than pills, for both adult and young women. Also, women who use IUCDs and implants are satisfied with them, leading to longer continuation than pills or injectables. Because unintended pregnancy occurs when women stop or switch methods, satisfaction and continuation are important strengths of IUCDs and implants as contraceptive methods.

- Shorter acting methods like birth control pills can be used as a bridging method until IUCD or tubectomy/female sterilization can be performed.

- Female sterilization may be performed only if a couple has applied and has an approved sterilization form.

9.0 Emergency contraception

Emergency contraception (EC) is a particularly important option for preventing pregnancy after unprotected intercourse or contraceptive failure and are available in some public sector facilities and private pharmacies. For women receiving postabortion care, providing EC pills in advance as a back-up method in case of contraceptive failure may help prevent future unwanted pregnancies. The use of EC will not terminate or interfere with a pregnancy once it is established.

There are two types of EC:

- IUCD: When inserted within five days after unprotected intercourse, a copper IUD is 99 percent effective in preventing pregnancy.
• Emergency contraceptive pills (ECPs): These pills are 75 to 95 percent effective when used within five days after unprotected intercourse.

• To be most effective, ECPs should be started as soon as possible after unprotected intercourse but may be taken up to 5 days after unprotected intercourse.

• Although either progestin-only pills (POPs) or combined estrogen-progestin oral pills (COCs) may be used, POPs are more effective and produce fewer side effects.

• When taken within 24 hours of unprotected intercourse, progestin-only ECPs have been found to reduce the risk of pregnancy by 95 percent.

• When taken within 72 hours of unprotected intercourse, ECPs that contain progestin-only reduce the risk of pregnancy by 89 percent, while ECPs that contain both estrogen and progestin reduce the risk of pregnancy by 75 percent.

In some settings, pills specifically packaged for EC are available. Where packaged ECPs are not available, taking a specific dose of commonly packaged oral contraceptives is acceptable. Recommended dosages depend on the formulation of the particular pills used. The following are examples of ECP regimens:

• POPs: Single dose of 1.5mg of levonorgestrel taken within five days of unprotected intercourse. In countries where pills containing 1.5mg of levonorgestrel are not available, two pills of 0.75mg can be taken together. Other POPs with levonorgestrel can also be used but, depending on the pill composition, women will need to take the number of pills equal to 1.5mg of levonorgestrel.

• COCs: Two doses of 0.1mg (100meg) of ethinyl estradiol plus either 0.5mg of levonorgestrel or 1.0mg of norgestrel taken 12 hours apart but within 120 hours after unprotected intercourse.

Women should be advised that the progestin-only regimen has the highest effectiveness and fewest side effects.

10.0 Summary

• Every woman including young women, receiving postabortion care should be offered contraceptive counseling and, if she desires, a contraceptive method.

• Contraceptive services support the basic human right to decide whether and when to have children. Women receiving contraceptive services have a right to privacy, confidentiality and informed choice.

• To be effective, providers must establish trust, strive to understand a woman’s contraceptive preferences and needs, and tailor the counseling session to meet those needs.

• There are several possible service-delivery models for providing contraceptive services. Providing contraceptive services at the same time and in the same location as the postabortion care can help ensure that a woman receives a contraceptive method before leaving the facility.

• Women receiving postabortion care may have a history of contraceptive use that includes failure of the contraceptive, incorrect use or non-use of their chosen method or failure of the health system to provide their contraceptive of choice.
• Inclusion of partners in contraceptive counseling may increase the effectiveness of the counseling, but should only be done if the woman, during a one-to-one conversation with the provider, indicates that she wants her partner involved. If not, she should be counseled and given the method privately and no information from the visit should be shared with her partner.

• Providers need to be knowledgeable about the range of contraceptive methods and consider each woman’s medical eligibility for various methods, including EC.

References


Postabortion Care Reference Manual


## Appendix A: Individual factors and counseling recommendations and rationales*

<table>
<thead>
<tr>
<th>If the woman</th>
<th>Recommendations</th>
<th>Rationales</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does not want to be pregnant soon</td>
<td>Consider all reversible methods.</td>
<td>If a woman indicates she does not want to be pregnant soon she needs an effective reversible contraceptive method immediately.</td>
</tr>
<tr>
<td>Is under stress or in pain</td>
<td>Consider all reversible methods. Do not encourage use of permanent methods at this time. Provide referral for continued contraceptive care.</td>
<td>Stress and pain interfere with making free, informed decisions, and this is not usually a good time for a woman to make a permanent decision.</td>
</tr>
<tr>
<td>Was using a contraceptive method when she became pregnant</td>
<td>Assess why contraception failed and what problems the woman might have had using the method effectively. Help the woman choose a method that she will be able to use effectively. Ensure that she understands how to use the method, get follow-up care and resupply, discontinue use and change methods.</td>
<td>Method failure, unacceptability, ineffective use or lack of access to supplies may have led to the unwanted pregnancy. These factors may still be present and may lead to another unwanted pregnancy.</td>
</tr>
<tr>
<td>Has stopped using a method, but does not want to become pregnant soon</td>
<td>Assess why the woman stopped using contraception, including side effects or lack of access to resupply. Help the woman choose a method that she will be able to use effectively. Make sure she understands how to use the method, get follow-up care and resupply, discontinue use and change methods.</td>
<td>Unacceptability or lack of access may have led to ceasing use of contraception. These factors may still be present and may lead to another unwanted pregnancy.</td>
</tr>
<tr>
<td>Is young</td>
<td>Consider all methods including long-acting methods like the intrauterine device or implants.</td>
<td>Young women are eligible for all forms of contraception, similar to older women.</td>
</tr>
<tr>
<td>Has a partner who is unwilling to use condoms or will prevent use of another method</td>
<td>If the woman wishes, include her partner in counseling. Protect the woman's confidentiality in all instances, even if she does involve her partner. Discuss methods that the woman can use without her partner's knowledge, such as injectables, IUCDs or implants. Do not recommend methods that the woman will not be able to use effectively.</td>
<td>In some instances, involving the male in counseling will lead to his use of and support for contraception; however, if the woman, for whatever reasons, does not want to involve a partner, her wishes should be respected.</td>
</tr>
<tr>
<td>Wants to become pregnant soon</td>
<td>Do not try to persuade her to accept a method. Provide information or a referral if the woman needs other reproductive-health services.</td>
<td>Women accessing postabortion care may want to become pregnant again soon.</td>
</tr>
</tbody>
</table>

*Note that more than one factor may apply.*

(Adapted from Leonard and Ladipo, 1994.)
### Appendix B: Guidelines for selection of contraception by method

<table>
<thead>
<tr>
<th>Method</th>
<th>Timing After Uterine Evacuation*</th>
<th>Advantages</th>
<th>Remarks</th>
</tr>
</thead>
</table>
| Non-Fitted Barriers  | May be used immediately after postabortion care with vacuum aspiration or MPAC | • No method-related health risks  
• Inexpensive  
• Good interim method if initiation of another method must be postponed  
• No medical supervision required  
• Latex and vinyl condoms provide protection against RTIs and STIs (HBV and HIV)  
• Easily discontinued  
• Effective immediately | • In typical use, less effective than IUCD or hormonal methods  
• Requires use with each incident of intercourse  
• Requires continued motivation  
• Resupply must be available  
• May interfere with intercourse |
| Oral Contraceptives  | May be used immediately after postabortion care with vacuum aspiration or given with misoprostol | • Highly effective  
• Available in some settings in community pharmacy or chemist shops  
• Can be started immediately, even if infection is present  
• Can be provided by non-physicians  
• Does not interfere with intercourse | • Requires continued motivation and daily use  
• Resupply must be available  
• No protection against STIs/HIV  
• Effectiveness may be lowered with long-term use of certain medications, including rifampin, dilantin and griseofulvin |

*This information applies to methods after first-trimester abortion.

† Male and female condoms are the only methods that provide protection against transmission of STI/HIV; they can be used in conjunction with all other methods.
## Appendix B: Guidelines for selection of contraception by method

(continued)

<table>
<thead>
<tr>
<th>Method</th>
<th>Timing After Uterine Evacuation*</th>
<th>Advantages</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency Contraceptive Pills</td>
<td>May be used immediately after postabortion care</td>
<td>• Important backup method when contraception fails (for example, condom breaks), when no method is used or when sex is forced • Available in some settings in community pharmacy or chemist shops</td>
<td>• Providing emergency contraceptive pills in advance as a backup method may help prevent future unwanted pregnancies • No protection against STIs/HIV • Generally less effective than other contraceptive methods • May have side effects such as nausea and vomiting</td>
</tr>
<tr>
<td>Vaginal Rings</td>
<td>May be used immediately after postabortion care with vacuum aspiration or MPAC</td>
<td>• Highly effective • Can be provided by nonphysicians • Does not require daily attention from user; stays in vagina for three weeks once inserted • Can be inserted by user • Available in some settings in community pharmacy or chemist shops</td>
<td>• Resupply must be available • Effectiveness may be lowered with long-term use of certain medications such as rifampin, dilantin and griseofulvin</td>
</tr>
<tr>
<td>Skin Patches</td>
<td>May be used immediately after postabortion care with vacuum aspiration or MPACl</td>
<td>• Can be started immediately, even if infection is present • Can be provided by nonphysicians • Available in some settings in community pharmacy or chemist shops • Does not interfere with intercourse • Does not require daily attention from user; applied once a week • Applied by user</td>
<td>• Resupply must be available • Effectiveness may be lowered with long-term use of certain medications such as rifampin, dilantin and griseofulvin • For the first cycle, if applied later than 24 hours after menstrual period starts, back-up method must be used for seven days</td>
</tr>
</tbody>
</table>

*This information applies to methods after first-trimester abortion.*
## Appendix B: Guidelines for selection of contraception by method (continued)

<table>
<thead>
<tr>
<th>Method</th>
<th>Timing After Uterine Evacuation*</th>
<th>Advantages</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Progestin-Only Injectables</td>
<td>May be given immediately after postabortion care with vacuum aspiration or MPAC</td>
<td>• Highly effective &lt;br&gt; • Can be started immediately, even if infection is present &lt;br&gt; • Can be provided by non-physician &lt;br&gt; • Does not interfere with intercourse &lt;br&gt; • Not user-dependent, except for remembering to get the injection every two or three months &lt;br&gt; • No supplies needed by user</td>
<td>• May cause irregular bleeding, especially amenorrhea; excessive bleeding may occur in rare instances &lt;br&gt; • Delayed return to fertility after stopping use &lt;br&gt; • Must receive injections every two or three months &lt;br&gt; • In many settings, must go to the clinic for resupply</td>
</tr>
<tr>
<td>Combined Injectables</td>
<td>May be given immediately after postabortion care with vacuum aspiration or MPAC</td>
<td>• Highly effective &lt;br&gt; • Can be started immediately, even if infection is present &lt;br&gt; • Can be provided by non-physician &lt;br&gt; • Does not interfere with intercourse &lt;br&gt; • Not user-dependent, except for remembering to get the injection every two or three months &lt;br&gt; • No supplies needed by user</td>
<td>• May cause heavy and/or irregular bleeding initially, especially for the first few months; then regular monthly bleeding usually resumes &lt;br&gt; • Delayed return to fertility &lt;br&gt; • Must receive injections every two or three months &lt;br&gt; • In many settings, must go to the clinic for resupply</td>
</tr>
<tr>
<td>Progestin-Only Implants</td>
<td>May be inserted immediately after postabortion care with vacuum aspiration or MPAC</td>
<td>• Highly effective &lt;br&gt; • Long-term contraception &lt;br&gt; • Immediate return to fertility on removal &lt;br&gt; • Does not interfere with intercourse &lt;br&gt; • No supplies needed by user</td>
<td>• May cause irregular bleeding, especially spotting, or amenorrhea &lt;br&gt; • Trained provider required to insert and remove &lt;br&gt; • Cost-effectiveness depends on how long used</td>
</tr>
</tbody>
</table>

*This information applies to methods after first-trimester abortion.*
# Appendix B: Guidelines for selection of contraception by method

(continued)

<table>
<thead>
<tr>
<th>Method</th>
<th>Timing After Uterine Evacuation*</th>
<th>Advantages</th>
<th>Remarks</th>
</tr>
</thead>
</table>
| IUCD†                  | IUCDs can be inserted after uncomplicated vacuum aspiration. After MPAC, IUCD may be inserted as soon as it is reasonably sure a woman is no longer pregnant. | • Highly effective  
• Long-term contraception; effective for five to 10 years, depending on the type  
• Immediate return to fertility following removal  
• Does not interfere with intercourse  
• No supplies needed by user  
• Requires only monthly checking for strings by user  
• Only one follow-up visit needed unless there are problems | • May increase menstrual bleeding and cramping during the first few months  
• Hormone treated IUCD can decrease bleeding or cause amenorrhea. Hormone treated IUCD are associated with secondary health benefits. Complications can include uterine perforation during insertion, which is rare, and expulsion.  
• May increase risk of pelvic inflammatory disease (PID) and subsequent infertility for women at risk for RTIs and STIs (HBV and HIV)  
• Trained provider required to insert and remove |
| Female Sterilization   | Female sterilization can be performed after uncomplicated vacuum aspiration and after MPAC. (If approval has been obtained from the sterilization board) | • Permanent method  
• Highly effective  
• No change in sexual function  
• No long-term side effects  
• Immediately effective | • Adequate counseling and fully informed consent are required before VS procedures  
• Slight possibility of surgical complications  
• Requires trained staff and appropriate equipment |
| Fertility Awareness     | May use method after first normal period has returned. Only for use in a women with a history of regular periods. | • No cost associated with method  
• No method-related health risks  
• No medical supervision required  
• Easily discontinued  
• Effective immediately | • Unreliable immediately after abortion  
• Alternative methods recommended until resumption of normal cycle  
• Requires extensive instruction and counseling  
• Requires continued motivation and a thorough understanding by the woman and her partner of how to use the method  
• Does not protect against STIs/HIV |

Adapted from: Benson et al., 1992; WHO, 2010b

* This information applies to methods after first-trimester uterine evacuation.
† See Section 9.0 for information on emergency contraceptive IUDs
Appendix C: Special contraceptive counseling considerations

(Please see Appendix A: Special considerations in the Informed Consent, Information and Counseling module for more information.)

Young women

When providing contraceptive counseling and services, it is important to ask what the young woman’s immediate and longer-term reproductive plans are and then provide appropriate counseling.

Contraceptive counseling should also include information on fertility awareness, by asking what the client knows about her menstrual cycle and fertility and building on that to educate her about the fertile and infertile points in her cycle. Fertility awareness-based methods are not recommended for young women with erratic or irregular menstrual cycles. Young women may have concerns about the safety or efficacy of contraceptive methods, which may be based on misinformation. They may not know how pregnancy occurs or is prevented. For example, they may have heard that pregnancy won’t occur if they have intercourse in certain positions, in water or during menstruation, or believe that contraception will cause future permanent infertility. Because of misinformation like this, it is important that providers explain how a contraceptive works, including efficacy, potential side effects such as weight gain or breast tenderness and their incidence, and the long-term clinical implications of any such side effects. Providers can ask indirect questions such as “What are some things your friends say about how you can and can’t get pregnant?” and “What are some things you heard about this method?” to find out whether a young woman is misinformed.

Contraceptive counseling should be reality-based. That is, it should begin by uncovering and addressing what clients believe and whether or not it is accurate, in order to avoid the method’s discontinuation. Providers should also learn from the young woman what barriers she may face in using different contraceptive methods and help the young woman identify the most appropriate option for her. A young woman’s privacy needs can also influence her selection of contraceptive method; for example, injectables, implants or an intrauterine device may suit a young woman with high privacy needs, even if her preferred method might otherwise be something else.

Making a larger range of contraceptive methods available is correlated with increased acceptance of a method, among young and adult women. In addition to her method of choice, the young woman should be offered to leave the facility with at least one dose of contraceptive pills (ECPs), in case of an accident or contraceptive failure.

The following information should also be presented when discussing contraception with young women:

Medical eligibility for young women

Clinical eligibility guidelines for postabortion contraceptives for young women are the same as for adult women. Three methods have implications for young women that bear additional discussion.

Sterilization

Young woman who have serious medical conditions can apply for sterilization. During counseling, providers should emphasize that it is a permanent method, and make it clear that there is no extra benefit to doing the procedure at the time of the abortion versus using a non-permanent method for some time to be sure it is the method she wants. Providers should offer information in a factual manner and support the young woman’s informed decision.
**Long-acting contraceptive methods**

Long-acting reversible contraception such as intrauterine devices (IUCDs) or implants are safe and effective and benefit young women. For all women, these methods are more effective at preventing pregnancy than other modern methods including pills, injections and condoms. In addition, because women who use IUCDs or implants do not have to remember pills every day, buy more supplies or get an injection every three months there is no chance of method failure because of problems with use. Young women have more difficulty using short acting methods than older women resulting in pregnancy rates that are double that of older women who use short acting methods. Therefore the ease of use of IUCDs and implant may be particular beneficial for young women. Finally, women who use IUCDs and implants are satisfied with them, leading to longer continuation than pills or injectables. Because unintended pregnancy occurs when women stop or switch methods, satisfaction and continuation are keys to the effectiveness of IUCDs and implants.

**Intrauterine devices (IUCDs)**

Young women are medically eligible to use IUCDs. There are no clinical contraindications based on age alone. IUCDs are less likely to be selected by young women than by older women in some countries. It is unclear whether this is in part due to providers’ reluctance to offer IUCDs to young women or young women’s reluctance after being given accurate, unbiased information on the method. However, a study in New Zealand found that women who did leave with an IUCD in place were 70 percent less likely to return for an abortion in the next three years than those who left with combined oral contraceptive pills (Roberts 2010). Providers should give this information to clients but not push them to accept an IUCD if the young woman is not interested in doing so.

**Injectables**

Injectables include progestin-only and estrogen and progestin (“combined”) formulas, including DepoProvera (DMPA) and Mesigyna and Norluy (NET-EN).

There has been some concern that DMPA may permanently decrease bone mineral density (BMD) in young women, as it does temporarily decrease BMD and adolescents have not yet attained their peak bone mass. A study specifically on adolescent women found that all of them had complete recovery of BMD within 12 months of discontinuation, and length of use of DMPA did not affect this recovery (Scholes 2005). However, WHO’s latest recommendations on medical eligibility for contraceptives states that most studies have found that women regain BMD after discontinuing DMPA but that it is unclear whether use in young women will affect peak bone mass, and thus list it as a category 2 method (“generally use the method” – in comparison, category 1 means “use method in any circumstances”) for women under 18 (WHO 2010b).

**Women with multiple visits for postabortion care**

If a woman does not want to become pregnant and has experienced multiple unwanted pregnancies and visits for postabortion care, the provider should help the woman identify any difficulties she may have using or accessing contraception and work with her to resolve those difficulties.

- Explore with the woman her history of contraceptive use. If she has not been using contraception, ask her about this, using non-judgmental language.
- If she has been using contraception, identify and resolve any difficulties she has experienced with her chosen method or help her select a method that may be more appropriate for her.
- If resupply of her chosen method has been problematic, help her identify a method that she can obtain more consistently.
• Advise the woman about how to access and use emergency contraception (EC) if she has unprotected intercourse or if contraceptive failure occurs. If possible, provide her with a supply of emergency contraceptive pills (ECPs).

**Women who have experienced violence**
When helping a woman who has experienced violence, select an appropriate contraceptive method and ask her to consider whether there is a connection between the violence and her contraceptive use. If the violence is a result of her contraceptive use, help her consider a method that cannot be detected by others. If the woman cannot control the circumstances of her sexual activity, advise her on using methods that do not require partner participation such as injectables, intrauterine devices and implants and also how to access and use EC. It may be beneficial to provide ECPs in advance.

**Women living with HIV**
The following information should be presented when discussing contraception with an HIV-positive woman:

• Male and female condoms help protect against HIV transmission and need to be used correctly each time intercourse occurs.
• If the woman engages in unprotected sexual intercourse with an infected partner, she may become infected with a different strain of HIV or other sexually transmitted infections (STIs).
• Dual protection is recommended. This practice consists of either the simultaneous correct and consistent use of male or female condoms for STI/HIV protection with another, more effective contraceptive method for pregnancy prevention, or with ECPs as a back-up method for pregnancy prevention. Women being treated for HIV need information on contraceptive options in relation to their treatment regimens.

**Women who engage in high risk behavior**
The following information should be presented when discussing contraception with women who engage in high risk behavior:

• Providers should recommend the use of dual protection, through the simultaneous use of condoms and another method, for protection against both STIs and unwanted pregnancy. If male condom use is not feasible for the woman, she may want condoms for both males and females to consider the use of female condoms, if available.
• Providers should advise against using an IUCD, as the woman is at increased risk of having or contracting an STI.
• The woman should be informed on how to access and use ECPs. It may be beneficial to provide the woman with ECPs in advance.
Module 10: Community Linkages

Key topics in this module:

- Partnerships with the community
- Community-based interventions

1.0 Introduction

Postabortion care is available in the basic health system, for example station and township hospitals and higher level facilities. Emergency care is provided at rural health centres and sub-centres. Communities can play a key role in reducing maternal mortality and morbidity by partnering with facilities that offer reproductive health services to ensure that women have the information, support and means to access the care they need. Workers in health facilities partner with communities to ensure a continuum of care for women who have miscarriage or post-abortion complications.

Health care providers and other facility staff need to take an active role in building partnerships with community members. To establish strong relationships with community members, health workers can:

- Provide high-quality, respectful care to all women who seek services and protect women’s confidentiality.
Postabortion Care Reference Manual

- Inform and consult with community leaders and representatives of different segments of the community, such as different ethnicities and young women.
- Establish ongoing mechanisms for community involvement in assessments of service delivery, adverse events, recommendations for quality improvements and positive community-provider partnerships that include diverse representatives. When adverse events occur, facilitate discussions to prevent misunderstandings and even potential threats to providers.
- Strengthen community-based outreach programs by civil society organizations to provide information on contraception to prevent unplanned pregnancy, and support and care to community members focusing on postabortion care.

Community members can also be proactive in defining community perspectives and problems and proposing appropriate solutions. Together, providers and community members can improve the quality of care and women’s access to services.

2.0 Community engagement in promotion and delivery of reproductive health

The Five Year Strategic Plan for Reproductive Health 2014-18, Department of Health, Ministry of Health, Myanmar states that one of the key activities to effectively and efficiently implement the seven main objectives is to “(E)ngage the community in promotion and delivery of reproductive health.”

The strategic plan calls to enhance community understanding of reproductive health needs and increase the demand for services. Examples related to postabortion care include:

- Provide information and advice/counseling on birth spacing/family planning, symptoms and signs of miscarriage and dangers of unsafe abortion
- Strengthen community and service provider partnerships to prevent unwanted pregnancies and unsafe abortion
- Help women receive appropriate and timely care for miscarriage and its complications

The strategic plan also calls to support health promotion and care activities by community health volunteers. Examples related to postabortion care include:

- Conduct awareness-raising/training to recognize the signs and symptoms of miscarriage and postabortion complications
- Organize timely referral to formal health system
- Develop initiatives for greater involvement of men in prevention of unplanned pregnancies

3.0 Community-based interventions

Providers should be open to implementing community-generated solutions to problems. Interventions are most effective when they are community driven and championed by local, recognized leaders who can provide credibility and sustainability.

Women, their husbands/partners and families need information about:
- Pregnancy signs and symptoms
- Availability of contraceptive services, including emergency contraception
- Dangers of unsafe abortion
- Legal indications for abortion where applicable, as per Myanmar policy
- Where they can obtain care for abortion-related complications
- Importance of seeking abortion-related care only from trained providers

Women need to be able to exercise their reproductive rights, and providers should do what they can to facilitate that. They can do so in the following ways:

- **Educate women and their partners about human reproduction, contraception and pregnancy options.** For example, health-care personnel can organize community meetings and conduct educational sessions or train community-based health workers to do so.

- **Train and equip community-health volunteers to provide contraceptive counseling and method provision and referrals so women can get their contraceptive needs met closer to home.** Health-facility staff can identify resources and develop a referral system to accommodate women who need specialized services.

- **Train community health volunteers (community health workers, auxiliary midwives) or local volunteers to refer women in emergency situations.** Making referrals to healthcare services, following up with women after treatment and linking women to other needed services are important referrals that community health workers can make.

- **Work with the community for identification of complications of miscarriage and postabortion complications and emergency transportation to a facility for immediate care.**

### 4.0 Ensure immediate treatment of complications

Rates of morbidity and mortality related to miscarriage and postabortion complications can be reduced by providing three key services:

- Early counseling
- Referrals for treatment of complications
- Adequate follow-up care

Providers can work with community health volunteers to educate women about the signs and symptoms of miscarriage or postabortion complications that require prompt medical attention, and they can make sure women know where emergency care is available. Communities can pool resources to set up an emergency transportation system to prevent delays in getting women prompt treatment help for obstetrical emergencies. Health-facility staff can train community health workers or local volunteers to refer women in emergency situations to health-care services, to follow up with women after treatment and to link women to contraceptive services.

### 5.0 Summary

- Include community health volunteers, including auxiliary midwives and young women in community partnerships.
• Providers and staff members at health facilities, in coordination with or through community leaders and community health volunteers, can raise public awareness about reproductive health and provide information on reproductive health, the dangers of unsafe abortion, the symptoms of miscarriage and abortion-related complications.

• Set up a referral system for obstetric emergencies including bleeding in early pregnancy and complications from unsafe abortion.

References


Module 11: Monitoring to Improve Services

Key topics in this module:

- Definition of monitoring
- Key steps of monitoring
- What to monitor
- Learning from adverse events

1.0 Introduction

Monitoring is usually carried out routinely in health facilities with a view to improve services. Monitoring helps ensure that services achieve and maintain a level of quality that is satisfactory to both clients and providers. This module includes the:

- Key characteristics of effective monitoring systems;
- Steps involved in monitoring;
Aspects of postabortion care service delivery that should be routinely assessed;
Importance of adverse event monitoring and reporting.

2.0 What is monitoring and why is it important?

Monitoring is a way of using information to identify strengths and weaknesses, provide feedback, and make adjustments to improve quality of care. Monitoring examines all aspects of care, including client satisfaction that may not be addressed through other means. Regular monitoring and adjustment help ensure that clients receive high-quality services and that health-care workers have the resources and support they need for service delivery. Monitoring is an ongoing process that should be continued whenever and wherever services are provided.

Monitoring can range from inexpensive and simple to more complete, formalized approaches. Information for monitoring can be gathered using existing or slightly modified routine information-collection systems, such as service delivery logbooks, service statistics and client records. Monitoring information enables providers and managers to recognize trends and identify problem areas, make necessary adjustments to services and check that these adjustments have had the desired effect.

The number and complexity of activities will vary according to the availability of staff and resources. In larger health facilities, administrators and managers usually conduct monitoring activities. In smaller facilities, providers may need to do the monitoring themselves.

The following table provides brief examples of facility-level monitoring that can be accomplished without complex information-gathering or analysis tools. These examples illustrate that monitoring works best when it is carried out over a period of time, with ongoing evaluations and updated improvement plans. Note that actual improvement plans would be more specific, including details on when, where, how and by whom the recommended steps would be carried out.

<table>
<thead>
<tr>
<th>Objective</th>
<th>Current Monitoring Data</th>
<th>Previously Collected Data</th>
<th>Improvement Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td>All patients treated within two hours of arriving at facility.</td>
<td>Patient waiting time for treatment is three hours on average.</td>
<td>Compared with data one year prior, patient waiting time has increased by 30 minutes.</td>
<td>Admission procedures will be streamlined to reduce patient waiting time.</td>
</tr>
<tr>
<td>100% of clients receive individualized counseling with a health staff member with counseling training or experience.</td>
<td>65% of clients receive individualized counseling with a health staff member with counseling training or experience.</td>
<td>Compared with data one year prior, individualized counseling has increased 40%.</td>
<td>Private counseling spaces will be expanded and additional counselors trained to increase individualized counseling.</td>
</tr>
<tr>
<td>Essential supplies to high-level disinfect MVA instruments available 100% of the time.</td>
<td>Instrument-processing chemicals are available 70% of the time. Deliveries of these chemicals are often one to three weeks late.</td>
<td>Compared with data 6 months prior, availability of instrument-processing chemicals increased 10%.</td>
<td>While an increase in availability is positive, the goal is 100% availability. An administrative change will be made to order instrument-processing chemicals well in advance to ensure adequate supplies despite late deliveries.</td>
</tr>
</tbody>
</table>
Goals in table 11.1 will need to be set by individual facilities.

3.0 Keys to effective monitoring systems

Monitoring is most effective when it:

...is integrated into routine work

When monitoring adds too many extra steps, the process becomes time-consuming and burdensome for health-care workers. Information gathered for monitoring purposes can be gathered from existing sources such as logbooks and service statistics.

...uses simple indicators

A small number of simple, thoughtfully chosen indicators can provide invaluable information about service provision.

...is participatory and open

When the monitoring process is genuinely inclusive of all health-care staff members, they are more likely to feel a sense of ownership of the results. Staff should be trained to use monitoring tools so they can incorporate monitoring into their responsibilities.

...is conducted in an ethical manner

Women’s privacy and confidentiality must be respected at all times. Informed consent must be obtained before women are interviewed or any provider-client interactions are observed. (Please see Appendix A: Written Consent Form – Interview and Appendix B: Written Consent Form – Observation for examples.)

...is not punitive

Monitoring is most effective when staff monitor themselves and the information gathered is used as a basis for reward and recognition.

...includes recipients of the services, including young women in the design and implementation of the monitoring process.

Conducting exit interviews, focus groups, or client satisfaction checklists is a good way to get information directly from the users of services to make improvements in quality of care.

### Using indicators

Indicators are measurements that help quantify activities and results. It is important to pick indicators that are actually under staff control, otherwise the process can be very demotivating. The sample indicators below can help describe the overall quality of postabortion care:

- Number and percentage of types of procedures used for management of PAC (MVA, M-PAC, expectant management, other procedures for management of miscarriage/postabortion complications, by age of the client);
- Number and type of miscarriage/postabortion complications;
- Number and percentage of women desiring contraception who receive postabortion counseling and contraceptive services, by age;
- Number of referrals made;
- Number and percentage of women satisfied with services, by age.
4.0 Adverse event monitoring

In the postabortion care setting, a woman may present with multiple complications that need treatment and/or emergency management. Unless these complications are the result of prior uterine evacuation services received at the facility where she has come for PAC treatment, these complications would not be considered adverse events for the treating facility.

By definition, adverse events are complications that a patient suffers during treatment that are not a result of her presenting condition. Adverse events are rare in routine postabortion and contraceptive care, but they do occur.

A distinction should be made in the logbook between any complications the woman may present with and complications arising from postabortion care services.

4.1 Types of adverse events

An adverse Event (AE) / complication is a problem requiring intervention or management beyond what is normally necessary that is related to a procedure or anesthesia.

A serious adverse event (SAE) results in death, life threatening injury, permanent impairment, or necessitates medical or surgical intervention to prevent permanent impairment.

Some examples of adverse events and serious adverse events are listed below.

<table>
<thead>
<tr>
<th>Vacuum Aspiration</th>
<th>Medical Methods</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perforation treated conservatively or requiring surgery</td>
<td>Unplanned aspiration (for example, for heavy bleeding or pain)</td>
</tr>
<tr>
<td>Anesthesia related complication requiring hospitalization or causing seizures</td>
<td>Reactions to medications requiring emergency treatment</td>
</tr>
<tr>
<td>Bleeding requiring a blood transfusion</td>
<td>Bleeding requiring a blood transfusion</td>
</tr>
<tr>
<td>Infection requiring intravenous antibiotics and/or hospital admission</td>
<td>Infection requiring intravenous antibiotics and/or hospital admission</td>
</tr>
<tr>
<td>Unintended intra-abdominal surgery</td>
<td>Unintended intra-abdominal surgery</td>
</tr>
<tr>
<td>Ectopic pregnancy unrecognized at time of procedure</td>
<td>Ectopic pregnancy unrecognized when medical management provided</td>
</tr>
<tr>
<td>Death</td>
<td>Death</td>
</tr>
</tbody>
</table>
4.2 Frequency of adverse events

It is estimated that one in every 10 patients in the hospital for any reason suffers some adverse event. Adverse events may be even more frequent in the developing world. Although postabortion care is extremely safe, even in the safest settings, adverse events can and will occur. The risk of death from safe postabortion care is extremely rare.

4.3 Why adverse events occur

Adverse events occur for many reasons. Adverse events are rarely the result of a single person or event, but usually result from a combination of multiple factors coming together during a single event.

Different factors leading to an adverse event are:

Client factors
The client may not be able to communicate information or disclose other relevant medical problems or have high-risk medical conditions. In abortion-related care, we know that increasing gestational age increases the risk of adverse events. Therefore, a woman at 18 weeks is at higher risk than a woman at 10 weeks. Other factors that may make adverse events more likely are complex medical problems, obesity or altered uterine anatomy.

Human error:
Human error comes in two forms: slips and lapses, and mistakes. Slips and lapses are when a plan of care is adequate but does not go as intended because of improper actions. This may be related to inattention, fatigue, or failure of memory. Mistakes are when the plan of care is improper for a certain situation. Most mistakes are due to problems with training, experience or knowledge.

Institutional errors:
These errors occur when institutions do not adequately protect patient safety. For example, to save money an institution may not order the appropriate medications and supplies needed for treatment. A clinical setting that is not supportive may turn minor complication into a serious life-threatening event.

4.4 How to approach adverse events

After an adverse event has occurred and the patient has been cared for, there are two ways that events can be evaluated. The first way is in a culture of blame. In a blame culture, a hospital or clinic might look to see which person caused the error so that they can be made to take responsibility or be punished. The goal is not necessarily to improve care, but to focus on individual responsibility.

In a safety culture, open dialogue is encouraged by all the people involved in the adverse event including the providers, assistants, administrators, the patients and their family (if appropriate). When adverse events occur, facility staff can hold discussions with family and community members to prevent misunderstandings and even potential threats, while respecting the woman’s privacy. In a safety culture, the goal is to see where the system failed and to improve the system so that in future, the same adverse event does not happen again.
4.5 Adverse event reporting

Once an adverse event has been identified, and the woman has been cared for, it is important that the event is documented, reported and analyzed so that information learned can be used to improve care.

Record all information required on the woman’s chart and the facility postabortion logbook.

Report the adverse event to local authorities according to established guidelines.

4.6 Learning from adverse events

Learning from the adverse event is best accomplished through a team discussion with all relevant staff members. Conduct the meeting in the “spirit of learning” that is non-punitive and everyone is allowed and encouraged to speak.

As a team, discuss and answer these questions:

1. What happened?
2. Why did it happen?
3. What can be changed to prevent similar events in the future?

Determine what could be changed to help prevent the adverse event from happening again and implement that change.

Root cause analysis is one of the ways of digging deeper into a problem to see where changes can be made to prevent an adverse event from happening in the future. One technique of doing root cause analysis is called “The Multiple Whys.” With the multiple whys, you keep asking why an event occurred until you arrive at a problem where action can be taken.

5.0 Four steps of effective monitoring

Monitoring involves four basic steps:

1. Planning
Develop a monitoring plan that specifies how information will be collected, shared and analyzed. Involve a range of stakeholders in the planning process.

2. Information gathering
Once the monitoring team has developed checklists and other tools, they can begin collecting information. There are several ways to gather data:

- Use information that is routinely collected by the health facility in logbooks, clinical records and supply ledgers.
- To measure a change in a specific area of service delivery, use the same indicator over time.
- Conduct periodic observation and client interviews to examine aspects of service delivery such as quality of client-provider interaction and client satisfaction. Staff should make sure to seek young women’s perspectives.

The monitoring team should identify themselves, explain to the woman why she is being observed or interviewed and ask her permission to continue. The interview or observation must not proceed if the woman does not give her consent. Monitors must also ensure that privacy and confidentiality is respected. (See Appendix A: Written consent form – interview and Appendix B: Written consent form – observation for examples.)
### Table 11-2: Examples of postabortion care monitoring

<table>
<thead>
<tr>
<th>Types of Services</th>
<th>Indicators</th>
<th>Information Sources</th>
<th>Checklists, Questionnaires and Exit Interviews</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assessment and treatment plan</td>
<td>Percentage of cases in which patients were assessed immediately for shock</td>
<td>Observe services using performance checklists</td>
<td>Were patients assessed for shock upon arrival?</td>
</tr>
<tr>
<td>Management and organization of services</td>
<td>Average amount of time patients receiving postabortion care spend in the facility</td>
<td>Review records of clinic finances, personnel and inventory</td>
<td>During which times of the day does patient waiting time increase?</td>
</tr>
<tr>
<td></td>
<td>Average amount of time from arrival to procedure</td>
<td>Observe and evaluate clinic flow</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Hours during which services are available</td>
<td>Review patient records and conduct interviews with staff</td>
<td></td>
</tr>
<tr>
<td>Contraceptive counseling and services</td>
<td>Number and types of contraceptives dispensed on site</td>
<td>Observe counseling services using performance checklists</td>
<td>How well was the patient counseled about which contraceptive methods are available?</td>
</tr>
<tr>
<td></td>
<td>Number and percentage of patients who received contraceptive counseling</td>
<td>Conduct exit interviews with patients</td>
<td>Did the patient leave with the desired method or information?</td>
</tr>
<tr>
<td></td>
<td>Number and percentage of patients desiring contraception who received a method</td>
<td>Review recent PAC cases in logbooks</td>
<td>Did the patient have to go to another facility to receive a contraceptive method?</td>
</tr>
<tr>
<td>Patient satisfaction</td>
<td>Percentage of patients who are satisfied with services provided (e.g. waiting time, respectful treatment, privacy, counseling on procedures and pain control)</td>
<td>Conduct exit interviews with patients</td>
<td>Do you think the amount you had to wait for services was reasonable?</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Did you have both audio and visual privacy during services?</td>
</tr>
</tbody>
</table>

### 3. Analysis

The data that were collected during the information-gathering process should be compiled for review by the monitoring team. Reveal problem areas

- Develop improvement plans
- Assess progress in improving care

### 4. Action planning

The team should first assess which problems can be addressed with relative ease, given the available resources. They can then formulate a plan of action.
Solutions to problems in postabortion care might include:

- Providing on-the-job training;
- Reorganizing clinic services;
- Changing clinic hours of operation;
- Revising systems for procuring and storing supplies;
- Strengthening referral systems.

6.0 Summary

- Monitoring is essential to ensuring that women receive high-quality postabortion care and that health-care workers have the resources they need to provide high-quality care.
- Monitoring is an ongoing process that works best when it is consistent and continuous and when the same tools are used to periodically measure results.
- Monitoring should fit into the routine work of the facility, use simple indicators, be open and participatory, and be performed ethically.
- When possible, monitoring should include input and participation of community members or clients who have received services.
- The four stages of monitoring are planning, information gathering, analysis and action planning.
- Adverse events should be documented, reported and analyzed so that information learned can be used to improve care and client safety.

References


Monitoring Appendix A: Written consent form – interview

Statement requesting to interview woman after receipt of postabortion care:

Interviewer:

Hello, my name is ____________, and I am working with a team that is monitoring service quality. We would like to help improve the services provided by this facility and would like to find out your views about the services you received.

I would like to ask you a few questions about the discussions you had with the staff and the procedure you have just undergone. I will not write your name on the data-collection form. Everything you tell me will be kept strictly confidential and will be shared only with other team members. No one will be able to identify you from the information we collect. Your participation is voluntary, and you do not have to answer questions you do not want to answer.

Do I have your permission to continue?

Client:

Yes, you have my permission.

Signature ___________________________ Date ___________________________

Witness ___________________________ Date ___________________________

Name of Facility ___________________________
Monitoring Appendix B: Written consent form – observation

Statement requesting to observe woman during her uterine evacuation:

Interviewer:

Hello, my name is __________, and I am working with a team that is monitoring service quality. We would like to help improve the services provided by this facility by observing the care you will receive.

I will not write your name on the data-collection form. Everything I observe will be kept strictly confidential and will be shared only with other team members. No one will be able to identify you from the information we collect. Your participation is voluntary, and you do not have to allow me to observe if you do not want to. If you do not wish to participate, this will not affect the care or services you receive today.

Do I have your permission to continue?

Client:

Yes, you have my permission.

Signature __________________________ Date ____________

Witness __________________________ Date ____________

Name of Facility __________________________

Monitoring to Improve Services
<table>
<thead>
<tr>
<th></th>
<th>Name</th>
<th>Position and Affiliation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Dr. Htay Aung</td>
<td>Deputy Director General (Public Health) Department of Public Health</td>
</tr>
<tr>
<td>2</td>
<td>Professor Dr. Mya Thida</td>
<td>Professor and Head, Department of Obstetrics and Gynecology</td>
</tr>
<tr>
<td></td>
<td></td>
<td>University of Medicine 1, Yangon</td>
</tr>
<tr>
<td>3</td>
<td>Professor Dr. KhinHtar Yi</td>
<td>Professor and Head, Department of Obstetrics and Gynecology</td>
</tr>
<tr>
<td></td>
<td></td>
<td>University of Medicine 2, Yangon</td>
</tr>
<tr>
<td>4</td>
<td>Professor Dr. Kyi KyiNyunt</td>
<td>Professor and Head, Department of Obstetrics and Gynecology</td>
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<tr>
<td></td>
<td></td>
<td>University of Medicine, Mandalay</td>
</tr>
<tr>
<td>5</td>
<td>Professor Dr. San San Myint</td>
<td>Professor and Head, Department of Obstetrics and Gynecology</td>
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<tr>
<td></td>
<td></td>
<td>University of Medicine, Magway</td>
</tr>
<tr>
<td>6</td>
<td>Dr. Katherine Ba Thike</td>
<td>Consultant</td>
</tr>
<tr>
<td>7</td>
<td>Dr. Alison Edelman</td>
<td>Consultant</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Associate Professor,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Oregon Health and Science University (OHSU)</td>
</tr>
<tr>
<td>8</td>
<td>Professor Dr. Yin Yin Zaw</td>
<td>President, Obstetrics and Gynecology Society,</td>
</tr>
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<td></td>
<td></td>
<td>Myanmar Medical Association</td>
</tr>
<tr>
<td>9</td>
<td>Professor Dr. Yin Yin Soe</td>
<td>Academic Committee, Obstetrics and Gynecology Society,</td>
</tr>
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<td></td>
<td></td>
<td>Myanmar Medical Association</td>
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<tr>
<td>10</td>
<td>Dr. Theingi Myint</td>
<td>Director, Maternal and Reproductive Health Division</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Department of Public Health</td>
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<tr>
<td>11</td>
<td>Daw Nwe Nwe Khin</td>
<td>Director of Nursing</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Department of Health Professional Resource Development and</td>
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<td></td>
<td>Management</td>
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<tr>
<td>12</td>
<td>Dr. Hnin Hnin Lwin</td>
<td>Deputy Director, Maternal and Reproductive Health Division</td>
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<td></td>
<td></td>
<td>Department of Public Health</td>
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<tr>
<td>13</td>
<td>Dr. Myint Moh Soe</td>
<td>Deputy Director, Maternal and Reproductive Health Division</td>
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<td></td>
<td>Department of Public Health</td>
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<tr>
<td>14</td>
<td>Dr. Khaing Nwe Tin</td>
<td>Assistant Director, Maternal and Reproductive Health Division</td>
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<td></td>
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<tr>
<td>15</td>
<td>Dr. Myo Myo Mon</td>
<td>Assistant Director, Maternal and Reproductive Health Division</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Department of Public Health</td>
</tr>
</tbody>
</table>
16. Dr. Zaw Myo Aung  
   Assistant Director, Child Health Development,  
   Department of Public Health

17. Dr. Ni Ni Hlaing  
   Deputy Regional Health Director  
   Yangon Regional Health Department, Yangon

18. Dr. Mon Mon Htay  
   Medical Officer,  
   Mandalay Regional Health Department, Mandalay

19. Dr. Hnin Wai Hlaing  
   Technical Advisor, Jhpiego

20. Dr. Win Aung  
   National Program Officer, UNFPA

21. Dr. Ko Ko Maw  
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   Myanmar Maternal and Child Welfare Association

22. Dr. San San Hlaing  
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23. Dr. Sai Nay Lynn Aung  
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29. Dr. Ni Ni  
   Country Manager, Ipas

30. Dr. Myint Thu Lwin  
   Senior Health Systems Advisor, Ipas

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   M&E Advisor, Ipas