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FOREWORD

Each year, at least 20 million women, worldwide undergo unsafe abortion due to lack of inadequacy of skills of the service providers, hazardous techniques and unsanitary facilities or both. Unsafe abortion is a major public health issue. In Bangladesh, abortion complications are one of the leading causes of maternal morbidity & mortality. Fourteen percent (14%) of maternal mortality is due to abortion complications. Currently emergency post abortion care is mainly limited to tertiary level District Hospitals and Medical College Hospitals. Treating abortion related complications places considerable stress on the service delivery system at the tertiary level. In order to reduce the hospital overload, health care system must provide affordable, accessible, high quality post abortion care services at all service delivery levels.

Post Abortion Care (PAC) services at the primary health care level is a new initiative. It includes emergency management of abortion complications, post abortion family planning counseling and services and would also link up with other comprehensive reproductive health services. It is identified as an important activity to save women's lives from abortion complications.

In order to provide quality Post Abortion Care services, this Technical Standards and Service Delivery Guideline is very essential. This guideline is developed jointly by the professionals from the Directorate of Family Planning, EngenderHealth and other experts to assist the health and family planning providers of the primary health care facilities in preventing death and serious injury from abortion complications.

I extend my whole hearted thanks to EngenderHealth, Bangladesh Country Office for publishing this user-friendly guideline. While acknowledging the contribution of all concerned, it gives me a great pleasure to forward the "Technical Standard and Service Delivery Guideline on Post Abortion Care" as a service delivery guideline to be used by the health and family planning providers of both GOB and NGO at the primary level.

Md. Fazlur Rahman
Director General
Directorate of Family Planning
ACKNOWLEDGEMENT

The Technical Standard and Service Delivery Guideline on Post Abortion Care (PAC) has been designed to provide comprehensive information on all of the aspects of providing care to a woman after an abortion. This guideline is meant to be used by doctors and paramedics at the primary health care level in public and NGO sectors.

This Technical Standard and Service Delivery Guideline has been adapted from a variety of extremely useful documents, a list of which is given in the bibliography. We would like to acknowledge with gratitude the authors, contributors and publishers of these documents.

For the development and adaptation of this Technical Standard, staff members of EngenderHealth, Bangladesh and Bangkok office have worked for a long period of time. They contributed a lot. They deserve commendation and thanks.

We wish to convey our gratitude, and acknowledge with sincere thanks the contributions and strong moral support provided by the Regional PAC Coordinator and Regional Medical Advisor, EngenderHealth (Asia Region), Global PAC Team members, EngenderHealth (New York), Senior Director, EngenderHealth (Bangkok), PHN Team Members, USAID, Dhaka particularly Mr. Matt Friedman, Dr. Setara Rahman of UFHP/JSI and the QIP professionals.

We express our most profound gratitude and thanks to the Director General and Director (MCH-Services) and Line Director (ESP-RH), Directorate of Family Planning for their active cooperation and support in publishing this Technical Standard and Service Delivery Guideline. Without their support this work would have been incomplete.

Finally, our thanks to the Packard Foundation who provided us the funds to get this guideline printed.

Dr. Abu Jamil Faisal
Country Representative
Bangladesh Country Office
EngenderHealth
INTRODUCTION

WHO estimates that throughout the world approximately 500,000 women die every year from pregnancy related causes. A large proportion of these deaths are attributable to complications of abortion. The tragedy of maternal deaths is that, virtually all are preventable with proper management (WHO, 1986).¹

Unsafe abortion, i.e., the termination of pregnancy performed or treated either by untrained or unskilled persons, and its complications are a major direct cause of death among women of reproductive age (WHO, 1986).¹ This high level of mortality worldwide that results from unsafe abortion could be prevented by providing emergency management of abortion complications and contraceptive services.

Women, who seek emergency treatment for abortion complications, such as bleeding, infection, and injuries to the reproductive tract, should receive priority attention in reproductive health care programs. These women often receive poor quality services that do not address their multiple health needs. They are usually discharged without counseling on postoperative recuperation, family planning or other reproductive health issues.

Women, who have had an induced abortion due to an unwanted pregnancy, are likely to have a repeated abortion unless they receive appropriate family planning counseling and services. Preventing repeated unsafe abortions is important for reproductive health programs because it saves women's lives, protects women's health and reduces the cost of emergency services needed for abortion complications.
Abortion situation in Bangladesh

In Bangladesh, complications from unsafe abortion are one of the leading causes of maternal mortality. It is a serious health problem. About 25 percent of the pregnancies are reported to be unwanted.\textsuperscript{2} The World Health Organization estimates that the thousands of maternal deaths which occur every year in the countries of South Asia including Bangladesh, 14\% of them are due to abortion.\textsuperscript{3}

In Bangladesh, Menstrual Regulation (MR) has been legal since 1975.\textsuperscript{3} However, many women do not know the places where MR services are available and are ignorant about the time limit. As a result, a substantial number of women obtain abortion services from traditional midwives or attempt self-abortion.

According to a survey, the estimated number of women hospitalized for abortion complications in 1996 was over 90 thousands. Of these 58\% suffered from complications of induced abortion. According to this survey, the total estimated number of induced abortions is over 52 thousands.\textsuperscript{3} This highlights the unnecessary miserable sufferings of women in Bangladesh.

It is anticipated that Post Abortion Care (PAC) services, if it can be started in a systematic manner at all levels of the health care system, would result in a significant reduction in maternal morbidity and mortality.

Key Elements of Post Abortion Care (PAC)

Comprehensive Post Abortion Care, which includes both curative and preventive care, has three key elements.

The three key elements are
- Emergency management for complications of spontaneous or induced abortion.
- Post abortion family planning counseling and services.
- Coordination between emergency post abortion treatment and comprehensive reproductive health care services.
Why Post Abortion Care (PAC) is Important

- **PAC protects women's health**
  Women's health could be protected by providing appropriate post abortion care and helping to obtain family planning counseling and services. 

- **PAC reduces women's suffering**
  Most women suffer from physical pain and emotional trauma due to unsafe abortion and miscarriage which could be minimized by making provision of compassionate, high-quality medical care.

- **PAC can prevent repeated abortions**
  Many women who have had one or more induced abortions are likely to be motivated for preventing unplanned pregnancies. Providing family planning counseling and services can help them to prevent unwanted pregnancies and reduce their need for abortion services and subsequent emergency post abortion care.

- **PAC offers opportunities to meet the multiple health needs of women**
  For some women, the first contact with the formal health care system occur during emergency treatment of abortion related complications. Thus, PAC offers an opportunity to inform women about available family planning methods, as well as other types of reproductive health services.

- **PAC reduces health care costs**
  Significant health care costs in terms of personnel, supplies, anesthesia, blood transfusions, antibiotics, hospital beds and operating rooms could be curtailed by high quality post abortion care services.
CHAPTER 1

Overview of Abortion
OVERVIEW OF ABORTION

Abortion
Abortion is the termination of pregnancy before the period of viability which is considered to occur at 28th week.\(^5\)

Types of Abortion

A. Spontaneous Abortion
Spontaneous Abortion is presumed when expulsion of the product of conception occurs without medical or mechanical intervention. This is most commonly known as "miscarriage".

Categories of Spontaneous Abortion
Clinically, spontaneous abortion may present as one of the following categories:

Threatened Abortion
Threatened Abortion is presumed when any bloody vaginal discharge or vaginal bleeding appears during the first half of pregnancy. This may or may not be accompanied by mild cramping pain resembling that of a menstrual period or by low backache. The bleeding of threatened abortion is frequently slight, but it may persist for days or weeks.

This is a common occurrence when pregnant women have vaginal spotting or bleeding during the early months of gestation. Of those women, who bleed in early pregnancy, one third or even more actually aborts.

If measures can be instituted to inhibit the uterine contraction for prolongation of the pregnancy to full term (38 weeks), the fetus may be delivered safely. These include: bed rest until contractions or vaginal bleeding stop, limiting abdominal/pelvic examinations and abstinence from sexual intercourse. Ultrasound may be utilized to check fetal status or viability.
I. Inevitable Abortion

Inevitable Abortion is presumed when the product of conception is in the process of expulsion. It is the state from where continuation of pregnancy is impossible.

It is characterized by vaginal bleeding and cramping in the presence of progressive dilation of the cervix. It may proceed to either incomplete or complete abortion. The process can be expedited by evacuation of the uterus, or allowed to occur on its own.

II. Incomplete Abortion

Incomplete Abortion occurs when products of conception are incompletely expelled through a dilated cervix. Effective contraction of the uterus is prevented with subsequent bleeding. Tissue, usually chorionic or placental tissue, retaining in the uterus or os can cause profuse bleeding and profound hypovolemia.

Prompt evacuation of the uterus, either by vacuum aspiration or dilatation and curettage can quickly resolve the problem. Occasionally, simply removing the product of conception from the os with sponge holding forceps will solve a potentially serious problem.

III. Complete Abortion

Complete Abortion occurs when all the uterine contents have been expelled spontaneously & completely. There is cessation of pain, scanty blood loss and a firmly contracted uterus. If there is no more active bleeding or if an ultrasound scan shows an empty uterine cavity, no further treatment is required.6

IV. Missed Abortion

Missed Abortion occurs when the embryo dies or fails to develop and the gestation sac is retained in the uterus for weeks or months. Mild symptoms like those of threatened abortion are followed by absence of the usual signs of progress of the pregnancy. The uterine size remains static and the cervix is often tightly closed.6

Immediate evacuation of the products of conception is mandatory once the diagnosis has been established.
Recurrent or Habitual Abortion

Recurrent or Habitual Abortion refers to any woman who has had three or more consecutive spontaneous abortions. Some of the identified possible causes are chromosomal abnormalities, incompetent cervix, infections, RH incompatibility, uterine abnormality etc.

For women with documented or probable cervical incompetence without other complications (e.g. uterine anomalies, bleeding, or infection), surgery for incompetent cervix has been successful in maintaining the pregnancy when performed during the first trimester before cervical dilatation occurs.

B. Induced Abortion

Induced Abortion is the termination of pregnancy before the time of fetal viability with the use of medical or mechanical interventions. Abortions may be self-induced, or utilize illegal services available either from untrained or unskilled providers in the community.

Abortion may be induced in a variety of ways: insertion of a solid object into the uterus or dilatation and curettage or vaginal placement of harmful substances or drugs. These are unsafe procedures when performed improperly and under unhygienic conditions, causing life-threatening complications, including tetanus, hemorrhage, gangrene, and sepsis. Unsafe, incompetent abortions greatly increase the risk of serious complications and are responsible for the majority of serious abortion related complications seen in health centers and hospitals.
CHAPTER 2

Management of Post Abortion Complications
MANAGEMENT OF POST ABORTION COMPLICATIONS

All women of reproductive age who come to a health center with vaginal bleeding, abnormal or late menses and cramping or lower abdominal pain need to be evaluated for complications of early pregnancy, specifically, abortion and ectopic pregnancy. The first step in providing care to a woman suspected of having an abortion related complication is to rapidly assess the urgency of her clinical situation.

VAGINAL BLEEDING → HYPOVOLEMIA

INFECTION → SEPSIS

INTRA-ABDOMINAL INJURY → SEPSIS and/or HEMORRHAGE

SHOCK

Initial screening

Abortion and Ectopic Pregnancy should be considered in any woman of reproductive age who has at least two out of three of the following:

- Vaginal bleeding
- Cramping and/or lower abdominal pain
- A history of amenorrhoea - more than a month has passed since her last menstrual period

If none of the above symptoms is present, we must consider other diagnosis.

Screening for life threatening complications

Women with possible early pregnancy complications need immediate assessment for any life threatening complications, which include:

- Shock
- Vaginal bleeding
- Infection
- Intra-abdominal injury including uterine perforation and ectopic pregnancy

If any of these complications are identified, the patient must be stabilized immediately, before proceeding to treat the underlying causes or transferring the patient to a secondary or referral hospital.

Interference with a pregnancy through unsafe means is a major cause of serious complications; however, the woman may not provide this information as a part of medical history for various legal and social reasons. Therefore, the possibilities should always be kept in mind while assessing physical signs and symptoms.
Complete Clinical Assessment

Several life-threatening conditions requiring immediate treatment may be present at the same time. A complete clinical assessment is necessary to determine which conditions are present in order to decide the order in which to treat them.

<table>
<thead>
<tr>
<th>Complete Clinical Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>History</strong></td>
</tr>
<tr>
<td>Ask about and record the following information:</td>
</tr>
</tbody>
</table>
| ▶ Amenorrhoea [how long ago did she have her last menstrual period (LMP)]
| ▶ Bleeding (duration and amount)
| ▶ Cramping (duration and severity)
| ▶ Abdominal or shoulder pain
| ▶ Drug allergies
| ▶ Any possible interference with a pregnancy |
| **General Physical Examination** |
| ▶ Check & record vital signs (pulse, temperature, respiration and blood pressure)
| ▶ Note general health & nutritional status (malnourished, anemia)
| ▶ Examine lungs, heart, abdomen, and extremities. (in examining the abdomen, first check bowel sounds, then check abdominal distension and rigidity (tense and hard), rebound tenderness, abdominal masses, and pain (presence, location, and severity)) |
| **Pelvic Examination** |
| ▶ Remove any visible products of conception from the vaginal canal or cervical os |
| ▶ Note if there is a foul-smelling discharge |
| ▶ Note the amount of bleeding and whether the cervix is open or closed |
| ▶ Check for cervical or vaginal lacerations |
| ▶ Perform a bimanual exam: estimate the size of the uterus, check for any pelvic masses and pelvic pain [severity, location, and what causes the pain (at rest, with touch and pressure and with movement of the cervix)] |
| **Laboratory Investigation** |
| ▶ If there is evidence of shock: Complete blood count, Hb% Blood groups and Cross matching |
| ▶ Others depending on initial assessment |
| ▶ Patient’s Rh status should be done during the clinical assessment in cases of abortion as well. |

1. LMP is the first day of the last menstrual period.
2. To check for rebound tenderness, press the abdomen with a hand. Then quickly remove the hand, rapidly releasing the pressure. If removal of the hand causes or worsens pain, there is rebound tenderness. Rebound tenderness is a sign of peritoneal inflammation or infection.
3. In this document, uterine size is measured by weeks since LMP (uterine size equivalent to a pregnant uterus of a given number of weeks since the last menstrual period) rather than in gestational weeks.
4. If the patient is Rh(-), give a dose of anti-D globulin within 48 hours of uterine evacuation or complete abortion.
A. Shock

Shock is a life threatening condition that requires immediate and intensive management to save the patient's life.

When a patient is first seen with the complications of abortion, she should be assessed immediately for signs of shock. The possibility of shock should be considered if hemorrhage, trauma or sepsis is immediately apparent.

<table>
<thead>
<tr>
<th>Signs of Shock</th>
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</thead>
<tbody>
<tr>
<td>Early Shock</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>▶ Awake, aware, anxious</td>
</tr>
<tr>
<td>▶ Slightly fast pulse</td>
</tr>
<tr>
<td>(110 per minute or more)</td>
</tr>
<tr>
<td>▶ Slightly fast breathing</td>
</tr>
<tr>
<td>(30 per minute or more)</td>
</tr>
<tr>
<td>▶ Pale</td>
</tr>
<tr>
<td>▶ Mild low blood pressure</td>
</tr>
<tr>
<td>(systolic less than 90 mm of Hg)</td>
</tr>
<tr>
<td>▶ Lungs clear</td>
</tr>
<tr>
<td>▶ Urine output (30 cc per hour or more)</td>
</tr>
<tr>
<td>Late Shock</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>▶ Confused, semi conscious or unconscious</td>
</tr>
<tr>
<td>▶ Very fast and weak pulse</td>
</tr>
<tr>
<td>▶ Extremely fast and shallow breathing</td>
</tr>
<tr>
<td>▶ Pale and cold</td>
</tr>
<tr>
<td>▶ Very low blood pressure</td>
</tr>
<tr>
<td>▶ Heart failure</td>
</tr>
<tr>
<td>▶ Pulmonary edema</td>
</tr>
<tr>
<td>▶ Urine output -</td>
</tr>
<tr>
<td>less than 30 cc per hour or complete anuria</td>
</tr>
</tbody>
</table>

Management of Shock

a. Initial treatment
The first step in the care of shock would be life saving.

<table>
<thead>
<tr>
<th>Universal Life Saving Measures</th>
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<tbody>
<tr>
<td>For the management of shock and stabilization of most underlying complications</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>▶ Keep the patient warm</td>
</tr>
<tr>
<td>▶ Raise the legs and lower the head (if patient can tolerate)</td>
</tr>
<tr>
<td>▶ Make sure that the airway is open and clear</td>
</tr>
<tr>
<td>▶ Protect the airway by turning the head to either side for avoiding aspiration of vomitus</td>
</tr>
<tr>
<td>▶ Nothing by mouth</td>
</tr>
<tr>
<td>▶ Oxygen (6 - 8 L/min) by mask or nasal cannula</td>
</tr>
<tr>
<td>▶ Restore fluid volume with Ringer's Lactate, Isotonic Saline or Dextrose - at a rate of 1 Liter in 15 to 20 mins. (If required, 3 Liter of fluid can run in quickly to stabilize.)</td>
</tr>
<tr>
<td>▶ Monitor closely for the signs of improvement or deterioration</td>
</tr>
</tbody>
</table>
These measures can be taken even at primary levels of care and should be given before and/or during transfer to the next level of care.

i) Keep patient warm: To prevent hypothermia, which causes peripheral shutdown and acidosis. Warm blankets are useful. Application of external sources of heat, e.g. heating pad or hot water bottle may cause burns.

ii) Raise legs: If possible, raise the foot of the bed to help venous return and improve blood pressure. If lying down causes severe difficulty in breathing, the legs should be lowered and the head should be raised to relieve pressure on the lungs.

iii) Body position: The woman's head and body should be turned to one side so that if she vomits, she is less likely to aspirate. If unconscious, patient's tongue will not obstruct airway.

iv) Nothing by mouth: To reduce the chance of inhaling or aspirating vomit.

v) IV fluids:
   - To restore fluid volume, intravenous fluids should be started immediately.
   - A large bore cannula, preferably 16-18 gauges, is best so that fluids may be given rapidly and blood can be given later through this channel, if needed.
   - Fluids can be infused quickly, at a rate of 500 cc to 1 liter per 15-20 minutes, only when the patient is being monitored to avoid fluid overload. Infused at this rate is required to stabilize a patient in shock. Normally, it takes about 3 liters of IV fluids. Close observation is essential to monitor for signs of improvement or deterioration. Once the woman's low fluid volume has been corrected, fluids should be infused at a maintenance rate of 1 liter per 6-8 hours.

vi) Medicines:
   - No medicine will be given by mouth
   - Medicine will be given either by IV or IM route, but IV is preferred.

vii) Antibiotics:
   - If there are any indications that infection is present, including fever, or chills; broad-spectrum antibiotics effective against Gram-negative, Gram-positive, Anaerobic organism and Chlamydia should be given.

b. Continuing treatment

Once the initial steps have been taken to stabilize the patient, prompt treatment of the underlying cause of shock is necessary. As soon as possible, refer the patient to the referral center. During transfer, a service provider should accompany the patient.
B. Vaginal Bleeding

Cause of vaginal bleeding

Prolonged or excessive vaginal bleeding due to abortion is usually caused:

- By retained products of conception (incomplete abortion)
- By trauma to the cervix (cervical trauma or laceration)
- By trauma to the uterus including perforation of the uterus

Types of vaginal bleeding

Mild vaginal bleeding

If the patient has any of the following signs, she has mild vaginal bleeding:

- Clean pad or cloth soaked in more than five minutes
- Fresh blood without clots
- Blood mixed with mucous

Moderate to severe vaginal bleeding

If the patient has any of the following signs, she has moderate to severe vaginal bleeding:

- Heavy, bright red vaginal bleeding with or without clots
- Blood-soaked pads, towels or cloth (soaked in less than five minutes)
- Pale inner eyelids, palms or face (around the mouth)

Management of Vaginal Bleeding

Begin treatment immediately to replace fluid loss, evaluate the cause and control bleeding. Probable causes include incomplete abortion, uterine, cervical or vaginal trauma (laceration or perforation). Address the cause of bleeding directly: evacuate uterus immediately if cause is incomplete abortion; repair cervical or vaginal lacerations; stabilize or refer for surgery if laparotomy is indicated, or treatment is beyond the capability of center in question.7

C. Infection

Unsafe abortion has a high risk of complications due to infection. Pathogens introduced into the uterus or retained products of conception pave the way for developing infection. Localized infection from induced or spontaneous abortion can quickly lead to more generalized sepsis and septic shock, which can be fatal.

If the patient has either uterine or generalized infection, she has any of the following:

History

- Acknowledged interference with this pregnancy, especially instrumentation of cervix and uterus
- Prolonged Bleeding (>8 days)
Symptoms
- Lower abdominal pain
- General discomfort (flu-like symptoms)

Signs
- Abnormal temperature (fever or hypothermia), chills or sweats
- Foul-smelling vaginal discharge
- Lower abdominal tenderness (with or without rebound tenderness)
- Mucous secretions from the cervical os
- Cervical motion tenderness on bimanual examination

Assessment of severity of infection and sepsis
A quick assessment of the severity of the infection and the risk for septic shock must be done when a woman has signs and symptoms of infection.

Assessment of woman's risk
for developing septic shock using following criteria

<table>
<thead>
<tr>
<th>Criteria for risk assessment of Septic shock</th>
<th>Low risk</th>
<th>High risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>First trimester abortion</td>
<td></td>
<td>Second trimester abortion</td>
</tr>
<tr>
<td>Mild to moderate fever (36.5 - 38.5°C or 99.5 - 101.5°F)</td>
<td></td>
<td>High fever (38.5°C or 101.5°F or more) or subnormal temperature</td>
</tr>
<tr>
<td>No evidence of intra-abdominal injury</td>
<td></td>
<td>Any evidence of intra-abdominal injury:</td>
</tr>
<tr>
<td>Stable vital signs</td>
<td></td>
<td>- Distended abdomen</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Decreased bowel sounds</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Rigid abdomen</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Rebound tenderness</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Nausea and vomiting</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Any evidence of shock:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Low blood pressure (systolic less than 90 mm Hg)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Anxiety, confusion, unconsciousness</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Pale inner eyelids, palms &amp; around the mouth</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Rapid &amp; weak pulse (rate 110 per minute or more)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Rapid breathing (rate 30 per minute or more)</td>
</tr>
</tbody>
</table>

Management of Infection
Begin treatment for infection with broad-spectrum antibiotics as soon as possible. Probable causes include septic abortion, or bowel injury. If retained tissue is suspected and there is no suspicion of uterine perforation, uterine evacuation should be done promptly following loading doses of antibiotics because retained products of conception (POC) are most likely the source of the infection. There is no reason to wait more than 1-hour post administration of antibiotic to evacuate the uterus, provided the patient is otherwise sufficiently stable for the procedure. Administer tetanus toxoid.
<table>
<thead>
<tr>
<th>Antibiotic</th>
<th>Dosage</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amoxycillin</td>
<td>1 g IV every 6 or 8 hours or 500 mg oral every 8 hours</td>
<td>Good broad spectrum antibiotic, inexpensive. Useful with Gentamicin and Metronidazole.</td>
</tr>
<tr>
<td>Benzyl penicillin</td>
<td>10 million units IV every 4 or 6 hours</td>
<td>Few serious side effects. Effectiveness limited to Gram (+). Effective to Cocci &amp; Gonorrhea (if not resistant).</td>
</tr>
<tr>
<td>Gentamicin</td>
<td>1.5 mg/kg/dose IV or IM every 8 hours</td>
<td>Effective against Gram (-) organism such as E. coli. Increase effectiveness with Amoxycillin &amp; Metronidazole.</td>
</tr>
<tr>
<td>Doxycycline</td>
<td>100 mg orally every 12 hours</td>
<td>Do not take with milk product or antacids. Adequate for both Gram (+) &amp; Gram (-) organisms including Chlamydia. Can replace or be used along with Amoxycillin. Good in combination with Metronidazole.</td>
</tr>
<tr>
<td>Tetracycline</td>
<td>500 mg every 6 hours orally</td>
<td>Do not take with milk product or antacids. Adequate for both Gram (+) antacids &amp; Gram (-) organism including Chlamydia. Can replace or be used along with Amoxycillin. Good in combination with Metronidazole.</td>
</tr>
<tr>
<td>Metronidazole</td>
<td>1 g IV every 12 hours or 400 mg orally every 8 hours</td>
<td>Good for Gram (-) and anaerobic coverage. Can be used in combination with Amoxycillin &amp; Doxycycline. Inexpensive. Generally available. Oral administration achieves serum levels equivalent to IV administration.</td>
</tr>
</tbody>
</table>

**Notes**

1. Penicillin or Amoxycillin, Gentamicin and Metronidazole are most commonly used together as the broad spectrum treatment of patients with severe sepsis of pelvic origin.
2. Once started, intravenous therapy should be continued until the patient is afebrile at least for 24 hours, preferably 48 hours. If there is no response in 48 hours, antibiotic regimen should be changed.
3. When recovery is underway, intravenous therapy should be followed by oral therapy. Generally oral medication of Tetracycline (500 mg by mouth 4 times daily) or Doxycycline (100 mg by mouth 2 times daily) for 10-14 days is advisable. Allergic reactions to Tetracycline are very rare. Some patients may develop a rash when their skin is exposed to the sun.
D. Intra abdominal injury

Injury to the internal organs is a life threatening complication among abortion patients. The most common injury is uterine perforation. Any internal injury, if it remains undiagnosed and untreated, can lead to serious complications including bleeding, infection and death.

**Signs of Intra-abdominal injury**

Intra-abdominal injury should be suspected prior to the procedure, if the woman has

- Rapid pulse
- Low blood pressure
- Excessive bleeding
- History of instrumental induction of the abortion

Intra-abdominal injury should be suspected during the procedure, if the woman

- Bleeds excessively
- If the instrument penetrates beyond the expected size of the uterus
- If the syringe vacuum decreases
- If the fat or bowel is found in the tissue removed from the uterus

If the patient has any of the signs listed below with any of the symptoms, she may be suffering from an intra-abdominal injury. Probable causes include a perforated uterus, bowel injury, or an ectopic pregnancy.

<table>
<thead>
<tr>
<th>Uterine or Bowel injury</th>
<th>Ectopic Pregnancy</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>History</strong></td>
<td><strong>History</strong></td>
</tr>
<tr>
<td>- Mechanical interference with pregnancy</td>
<td>- Short history of amenorrhoea followed by severe lower abdominal pain, particularly on the affected side</td>
</tr>
<tr>
<td><strong>Symptoms</strong></td>
<td><strong>Symptoms</strong></td>
</tr>
<tr>
<td>- Nausea/vomiting</td>
<td>- Fainting attack</td>
</tr>
<tr>
<td>- Shoulder pain</td>
<td>- Gradually increasing lower abdominal pain, particularly on the affected side</td>
</tr>
<tr>
<td>- Abdominal pain, cramping</td>
<td>- Slight to moderate vaginal bleeding</td>
</tr>
<tr>
<td><strong>Signs</strong></td>
<td><strong>Signs</strong></td>
</tr>
<tr>
<td>- Distended abdomen</td>
<td>- Shoulder pain</td>
</tr>
<tr>
<td>- Decreased bowel sounds</td>
<td>- Syncope</td>
</tr>
<tr>
<td>- Rigid (tense and hard ) abdomen</td>
<td>- Tense and tender lower abdomen, particularly on the affected side</td>
</tr>
<tr>
<td>- Rebound tenderness</td>
<td>- Extreme cervical tenderness</td>
</tr>
<tr>
<td>- Fever (temperature &gt;38°C)</td>
<td>- Slight to moderate vaginal bleeding</td>
</tr>
</tbody>
</table>
Management of Intra-abdominal injury

When combined with signs of shock (rapid pulse and respiration and low blood pressure), the possibility of major intra-abdominal bleeding (e.g., uterine perforation, ruptured ectopic pregnancy), or bowel perforation and sepsis must be considered. Initiate stabilizing measures, further evaluate underlying causes, and prepare for surgery or urgent referral to surgical center if surgery is deemed necessary.

Note

Service provider will accompany the patient during transfer.
EVACUATION OF UTERUS

Incomplete abortion, in the absence of evidence suggesting uterine or abdominal injury, is treated by removing the remaining products of conception (POC) from the uterus. The method used for emptying or evacuating the uterus depends on the duration of pregnancy, which is based on the LMP and uterine size, as well as the availability of equipment, supplies and skilled staff. If skilled staff and supplies are not available, the woman should be referred immediately to an appropriate facility.7

Typically, Vacuum Aspiration (VA) and Dilation & Curettage (D&C) are the techniques of uterine evacuation.

Vacuum Aspiration

Vacuum aspiration has been found to result in fewer complications than D&C and causes less trauma to the patient. In addition, vacuum aspiration does not require general anesthesia and can be performed in a clinical procedure or examination room. A vacuum of at least 26 inches mercury (Hg) is required to evacuate the uterus fully and quickly. Gentle exploration of the uterus with a fine curette to confirm complete removal of uterine contents afterwards may be done, but is not necessary or recommended.7

Two types of Vacuum Aspiration syringes are available

Electric Vacuum Aspiration

This procedure uses an electric pump and cannulae for uterine evacuation in the first trimester.

Manual Vacuum Aspiration (MVA)

This technique uses a hand-held vacuum syringe and flexible plastic cannulae. It is an effective method for management of incomplete abortion. It removes the contents of the uterus using controlled suction.

Dilation and Curettage (D&C)

This technique, also called Instrumental Uterine Curettage or Sharp Curettage. It uses metal surgical instruments to empty the uterus, usually under general or local anesthesia, or heavy sedation. It also requires operating theatre facilities and staff skilled in surgical techniques and general anesthesia.

Treatment of incomplete abortion in the middle to late second trimester, however, should be done by an experienced clinician with advanced training and in a facility with appropriate instruments and full emergency backup e.g. equipment to administer IV fluids, provide blood transfusions and perform abdominal surgery.
Manual Vacuum Aspiration (MVA)

Timing of Procedure

In cases of uncomplicated incomplete abortion, MVA should be accomplished without delay. Prompt management will reduce complications, especially in cases of profuse or prolonged bleeding.

MVA Instrument Kits

Basic MVA instrument kits for emergency management of incomplete abortion contain:

- double-valve 60 cc syringe with a locking valve, plunger handle, collar stop and silicone for lubricating the syringe o-ring.
- sterile, flexible cannulae with two opposing, offset openings for maximum effectiveness and in six sizes, 6-10 mm and 12 mm, with a set of color-coded adapters to fit each cannulae to the syringe.

![MVA Kits](image)

The double-valve syringe may be used with cannulae up to the 12-mm size in management of incomplete abortion for uterine size up to 12 weeks LMP.

Preparation for the MVA procedure

Minimizing the Risk of Infection

With proper training of clinic staff and use of recommended infection prevention practices with each procedure, postoperative infection and transmission of diseases such as Hepatitis B, C and AIDS can be minimized. These practices include:

- Thorough hand washing with soap and water before and after each MVA procedure
- Use of sterile or high-level disinfected instruments and gloves on both hands
- Cleaning the cervix and vagina with an effective antiseptic before inserting any instrument through the cervix and into the uterine cavity
- Use of no-touch technique for the MVA procedure
- Decontamination of contaminated (soiled) instruments and reusable gloves immediately following the procedure.
- Handling and disposal of product of conception (POC) and contaminated waste items by placing in a covered container or plastic bag for burying.

Breaking this routine at any point can have unfortunate results for the safety of patients and clinic staff.

(Note: Basic infection prevention guideline for minimizing the risk of disease transmission to patients and clinic staff, including housekeeping and cleaning personnel is presented in Chapter 5.)
Preparation MVA Instruments

Before the MVA procedure, it is essential to ensure the availability of all the instruments required for MVA in a prepared condition. For that purpose,

- Check that the MVA syringe holds a vacuum.
- Ensure that emergency back up is available.
- Charge the MVA syringe by:
  - locking the valve in the closed position
  - pulling back on the plunger locked in place

Figure: Preparing the syringe (Creating the Vacuum)

Steps in Preparing MVA instruments

Place several appropriately sized cannulae on a sterile or HLD tray. The most appropriate size of the cannula to be used should be based on the cervical dilation & actual size of the uterus. It is advisable to have cannulae of several sizes on hands.

Prepare MVA syringe and Adapters

- Inspect the syringe and cannulae. Discard any syringe or cannulae with visible cracks or defects or syringe that does not hold a vacuum
- Attach the adapter to the end of the cannula.
- Check the plunger and pinch valve.
- Close the pinch valve by pushing the buttons down and forward the syringe tip.
- Prepare the syringe by grasping the barrel and pulling back on the plunger until the arms of the plunger snap outwards at the end of the syringe barrel, holding the plunger in place.
- Check that the plunger arms are in a stable position, fully extended to the sides and secured over the edge of the barrel.
Check the syringe for vacuum tightness before use. Leave the syringe for several minutes with the vacuum established. Open the pinch valve by releasing the buttons. Air can be heard rushing into the syringe, indicating that there was a vacuum in the syringe.

Re-established the vacuum if a rush of air is not heard.

Preparing the patient

Before performing the pelvic examination, be sure the patient has:
- Been told what to expect and why
- emptied her bladder (voided)
- Washed (or had staff wash) her lower abdomen and external genitalia (perineal area) with soap and water

Note: Shaving the patient's pubic hair is not necessary and may increase the risk of local infection (cellulitis). If pubic hair is long or interferes with use of instruments, trim with scissors.

Pelvic examination

A. A speculum examination is performed first to check the cervix for tears or protruding product of conception. If product of conceptions are present in the vagina or cervix, remove by using a sponge (ring) forceps. Also, if IUD strings are visible in the cervix, remove the IUD.

B. A bimanual examination is performed to assess uterine size, position and tenderness.

Steps for performing MVA

Step 1 Gently insert the speculum and check the cervix for signs of trauma, laceration or infection or protruding product of conception.

Step 2 Clean the cervix (especially the os) and vagina with antiseptic solution
- Ask the client about allergic reactions before selecting an antiseptic.
- After inserting the speculum, thoroughly apply antiseptic solution two or more times to the cervix (especially the os) and then vagina by using sponge forceps and gauze or cotton.
- If iodophors are used, allow up to 2 minutes before proceeding to allow release of iodine which is the active ingredient of the antiseptic.

Step 3 Administer paracervical block (if needed) and grasp the cervix with a ring forceps or tenaculum. Tell the patient that this might cause some cramping.
Step 4 Dilate the cervix (if required) when the cervical canal will not allow the passage of the cannula of appropriate to the uterine size. Dilation should be done gently with cannulae of progressively increasing size, taking care not to traumatize the cervix.

Step 5 Insert the cannula through the cervix into the uterine cavity just past the internal os. Rotating the cannula with gentle applying pressure often helps ease insertion of the tip of the cannula through the cervical canal.

Step 6 Push the cannula slowly into the uterine cavity until it touches the fundus. Note the uterine depth by the dots visible on the cannula. The dot nearest the tip of the cannula is 6 cm from the tip, and the other dots are at 1 cm intervals. After measuring the uterine size, withdraw the cannula slightly.

Figure: Inserting the Cannula

Figure: Measuring the Depth with Cannula
Step 7  Attach the prepared syringe to the cannula by holding the forceps (or tenaculum) and the end of the cannula in one hand and the syringe in the other hand.

Step 8  Release the pinch valve on the syringe to transfer the vacuum through the cannula to the uterine cavity. Bloody tissue and bubbles should begin to flow through the cannula into the syringe.

![Figure: Attaching the syringe](image)

**NOTE**
Make sure that the cannula does not move forward into the uterus as you attach the syringe.

Step 9  Evacuate the remaining contents of the uterine cavity by gently rotating the syringe from side to side and then moving the cannula gently and slowly back and forth within the uterine cavity.

![Figure: Evacuating Uterine Contents](image)
It is important not to withdraw the opening(s) of the cannula beyond the cervical os, as this will cause loss of the vacuum. If this happens, or if the syringe is full, re-establish the vacuum.

**NOTE**

While the vacuum is established and the cannula is in the uterus, never grasp the syringe by the plunger arms. Doing this may cause the plunger arm to become unlocked, accidentally allowing the plunger to slip back into the syringe, pushing material back into the uterus.

**Step 10** Check for signs of completion. The MVA procedure is complete when:
- Red or pink foam and no more tissue is seen in 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.

**Step 11** Detach the syringe, leaving cannula in place inside uterus, with valve open, empty the contents of the MVA syringe into a strainer by pushing on the plunger.

![Figure: Detaching Syringe](Image)

Figure: *Detaching Syringe*

**NOTE**

Do not put the Empty Syringe in the decontamination solution until the procedure is complete. (Set it aside on a clean covered tray for re-use.)
Step 12 Quickly inspect the tissue removed from the uterus:

- For quantity and presence of POC,
  (compare it with expected gestational age)
- To assure complete evacuation
- To check for a molar pregnancy (rare).

When possible, strain and rinse the tissue to remove excess blood clots, and then place in a container of clean water, saline solution or weak acetic acid (vinegar) to examine visually. Tissue specimens also may be sent to the pathology lab as indicated.

Tissue fragments may contain villi, fetal membranes, endometrial tissue (decidua) and, after nine weeks from the LMP, fetal parts. (In identifying villi, a simple magnifying glass may be used as aid.)

If no POC are seen, then:

- All of the POC may have been passed before the MVA was performed (complete abortion)
- The uterine cavity may appear to be emptied but may not have been emptied completely due to inexperience of the service provider
- The vaginal bleeding may have been due to a cause other than incomplete abortion (e.g., estrogen-or progesterone-breakthrough bleeding, as may be seen with hormonal contraceptives, or uterine fibroids)
- The uterus may be abnormal (i.e., cannula may have been in the non pregnant side of a double uterus)

Absence of POC in a patient with symptoms of pregnancy, however, raises the strong possibility of ectopic pregnancy, which should be evaluated completely. Ectopic pregnancy, if diagnosed, requires immediate evaluation and referral if surgery (laparotomy) or laparoscopy is not available.
Step 13  Quickly assess the condition of the woman. After being certain the procedure is complete, remove the cannula, tenaculum and speculum. Decontaminate all instruments (MVA syringe, cannula, tenaculum and speculum) by placing in 0.5% chlorine solution. Re-attach cannula to syringe, aspirate chlorine solution into the syringe and flush out the cannula. If paracervical block was administered, decontaminate assembled hypodermic needle and syringe by filling with chlorine solution before soaking. Allow the items to soak for at least 10 minutes.

**NOTE**

Instruments to be reused must be cleaned and either sterilized or high-level disinfected (see Chapter 5).

Step 14  While still wearing gloves, place contaminated disposable objects (gauze, cotton and other waste items) in a properly marked, leak-proof container or plastic bag. Place sharp instruments (needles and syringes) in a separate puncture-proof container. Waste should be disposed of by burning or burying. Tissue fragments evacuated from the uterus also may be emptied into the sewage system.

Step 15  Immerse both gloved hands in decontamination solution, then remove gloves by turning them inside out. Discard as above. If surgical gloves are to be reused, submerge in solution (soak for 10 minutes).

Step 16  Wash hands thoroughly with soap and water.

Step 17  Accompany the woman to recovery room.

**Postoperative Care**

**Monitoring Patient's Recovery**:
Monitoring required during recovery will depend on the medical condition of the woman. Women with additional complications (eg sepsis, hemorrhage or shock) will require very close monitoring. General principles of care are summarized below:

- Take and record vital signs while the patient is still on the treatment table, and continue in recovery area, with decreasing frequency as patient becomes or remains stable.
- Allow the patient to rest comfortably where her recovery can be observed and monitored.
- If the patient is Rh negative, administer Rh(d) immune globulin before discharge, if available.
- If treatment for complications (e.g., infection, volume depletion) has been started, continue therapy and monitoring as required by her condition.
- For uncomplicated cases, check bleeding at least once before discharge.
- Recheck vital signs.
- Check to see that cramping has decreased. (Prolonged cramping is not considered normal.)
- The patient may be discharged as soon as she is stable, can walk without assistance and has received necessary follow-up information, (see below).

**Postoperative Information**

After the procedure and when the patient is able to understand, she must be provided with the following information:

**Signs of a normal recovery. These are**

- Some uterine cramping over the next few days which may be eased by mild analgesics
- Some spotting or bleeding which should not exceed a normal menstrual period
- A normal menstrual period which should occur within 4 to 8 weeks

**How to care for herself**

- She should be given instructions for taking any prescribed medications
- She should not have sexual intercourse or put anything into the vagina (no douching, no tampons) until after the bleeding stops (5 to 7 days)
- Her fertility can return in less than 2 weeks after the procedure, so if another pregnancy is not wanted, she needs family planning counseling and begin using a method immediately.
- She should know what to do and where to go for emergency care if complications occurs
- In the case of spontaneous abortion, she may wish to become pregnant soon, and unless there are medical problems, there is no reason to discourage her from doing so.
- When and where to go for follow-up visit

**The warning signs and symptoms requiring for immediate emergency attention include:**

- Prolonged cramping (more than a few days)
- Prolonged bleeding (more than 2 weeks)
- Bleeding more than normal menstrual bleeding
- Severe or increased pain
- Fever, chills or malaise
- Fainting (syncope)
Management of trouble shooting problems
During the MVA procedure

Several types of problems either technical or procedural as well as medical complications can occur during and after completing a MVA procedure, even under the best circumstances. Most of them are not serious and if recognized and treated immediately, the patient's recovery will not be affected.

Technical Problems
In most MVA procedures, the syringe vacuum remains constant until the syringe is approximately 50 cc (90%) full. However, a decrease in vacuum may occur before the aspiration procedure is complete, if the cannula is blocked or withdrawn prematurely.

Management

Syringe full
If the syringe is full
1. Close the pinch valve of the syringe
2. Disconnect the syringe from the cannula, leaving the tip of the cannula in place inside the uterus. (Do not push the plunger when disconnecting the syringe)
3. Empty the syringe into a container for inspection by opening the pinch valve and pushing the plunger into the barrel
4. Re-established a vacuum in the syringe, reconnect it to the cannula and resume the aspiration.

Note
Many practitioners keep a second prepared syringe on hand during the aspiration and switch syringe if one become full

Cannula Withdrawn Prematurely
If the opening of the cannula is pulled into the vaginal canal with the valve
Open, the vacuum will be lost. To correct this:
1. Remove the syringe and cannula, taking care not to contaminate the cannula through contact with the vaginal walls or other non-sterile surfaces
2. Close the pinch valve of the syringe
3. Detach the syringe from the cannula, empty the syringe, then re-establish the vacuum in the syringe
4. Reinsert the cannula if it has not been contaminated.
5. If contaminated, insert another sterile or high level disinfected cannula
   Reconnect the syringe, release the valve and continue aspiration
Cannula blocked or clogged
If no tissue or bubbles are flowing into the syringe, the cannula may be blocked or clogged
1. Close the pinch valve of the syringe
2. Remove the syringe and cannula, taking care not to accidentally contaminate the cannula through contact with the vaginal walls or other non-sterile surfaces
3. Remove the materials from the opening in the cannula using a sterile or high level disinfected forceps or sponge, without contaminating the cannula. If contamination occurs, use another sterile or high level disinfected cannula

<table>
<thead>
<tr>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never try to unclog the cannula by pushing the plunger back into the barrel with the cannula tip still in the uterus.</td>
</tr>
</tbody>
</table>

4. Re-insert the cannula, attach a prepared syringe and release the pinch valve

Syringe does not hold vacuum
If the syringe does not seem to hold a vacuum, try lubricating the plunger and barrel with a drop of silicone. If this does not work, replace the O-ring. If the syringe still does not hold a vacuum, discard it and use another syringe.

Post Abortal Syndrome (Acute Hematometra)
This condition occurs when the blood flow from the uterus is blocked, thus creating continues intrauterine bleeding, uterine distension, severe cramping and fainting, usually within a few hours after completion of the procedure. The uterus will be larger than before the procedure and extremely tender on examination.

Management
This condition is treated by re-evacuating the uterus and administering Oxytocies or massaging the uterus to keep it contracted.
MVA INSTRUMENT

Double Valve Vacuum Syringes

Valve
Barrel
Collar Stop
Plunger Handle

Flexible Cannula

6 cm
3 cm

Adapter

Cannula with Adapter
PAIN MANAGEMENT

Many women having abortion complications, suffered from pain which need prompt & effective pain management. The purpose of this pain management is to ensure that the woman suffers minimum of anxiety and discomfort, as well as the least risk to the patient's health. Appropriate use of various agents combined with gentle technique and verbal support from the providers and nursing staff allows the patient to be awake, responsive and in minimal fear & discomfort.

MVA can be performed outside the operating theater e.g. in the treatment room of a clinic, or emergency unit. The MVA procedure is brief, lasting only for a few minutes. The cervix is normally open or dilated and soft, so the cannula can be inserted without causing undue pain. Most patients with incomplete abortion remain comfortable during a MVA procedure without much treatment of pain. Gentle supportive treatment of the patient and use of a non-narcotic analgesic coupled with frequent verbal communication and reassurance are often sufficient. When additional cervical dilatation is necessary, use of local anesthesia such as paracervical block is the best option for effective MVA pain management.

Types of Pain

Commonly, patients treated for incomplete abortion by MVA, experience two types of pain.

1. The first type of pain is deep, intense pain, which accompanies cervical dilatation and stimulation of the internal cervical os. It is transmitted by the nerves surrounding the cervix and the cervical canal transmit this pain.

2. The second type of pain is caused by uterine evacuation. It is a diffuse lower abdominal pain with cramping which occurs with movement of the uterus, scraping of the uterine wall and uterine muscle contractions related to emptying of the uterine cavity. This pain is transmitted along major uterine nerves that follow the uterosacral and uteri-ovarian ligaments.

Pain management techniques depends on

The key of pain management & patient comfort with uncomplicated MVA are

- Supportive attention from staff before, during & after the procedure (it helps to reduce anxiety & lessen pain)
- A provider who is comfortable working with patients, who are awake and is trained to handle instruments gently.
- The selection of an appropriate level of pain medication
Types of Pain Control Medication

There are three categories of pain control medications. They are followings:

- **Analgesia** which eases sensation of pain
- **Anesthetics** which numb all physical sensation either locally or generally; under a general anesthetic, the patient becomes completely unconscious.
- **Anxiolytics** which depress the functions of the central nervous system and do not actually reduce pain; they are used to produce calm, relax muscles, and promote sleep. Some have an amnesic effect as well. Effective pain control for MVA, generally consists of some combination of two or three of these drug types, in conjunction with gentle handling, reassurance, and clear communication.

**Oral Analgesia**

For mild to moderate pain associated with MVA procedures, oral medications alone may be given. Suggested doses of oral analgesics are:

- Ibuprofen 400-800 mg
- Paracetamol 500-1000mg

**Local Anesthesia**

Local anesthesia interrupts transmission of sensations in local tissue only. In most MVA procedure, only analgesia and/or anxiolytic are necessary. However, when the cervix is not very open or additional dilation of the cervix is needed, a local anesthetic may be used. The local used for MVA is a paracervical block. The paracervical block numbs the nerves around the cervix and cervical canal, decreasing the intense pain from dilating the os, stretching and pulling on the cervix, and moving the cannula in the cervix.

For the paracervical block, it is best to use a local anesthetic such as 1-% lidocaine without epinephrine. The dose should rarely exceed 3.5 mg per kg body weight of the patient (10-15 ml.) The manufacture of lidocaine recommends a maximum of 200-mg (20 ml 1% lidocaine) for paracervical block.

**How to Administer A Paracervical Block**

- Ask the patient about any drug allergies.
- If she is not allergic to local anesthesia, using a 22-25 gauge spinal needle or needle extender with 10 cc syringe, and aspirating before each injection, inject
1 ml (lidocaine) into the place where the tenaculum will be placed (generally at 10 or 12 o'clock on the cervix). If the uterus is antverted, 12 o'clock placement is the best. If the uterus is retroverted, 6 o'clock position works well.

- Then give 2-3 ml (lidocaine) at 3, 5, 7, and 9 o'clock at the junction of the cervix and vagina.
- Wait 2-4 minutes for it to take effect.

<table>
<thead>
<tr>
<th>Analgesic drug</th>
<th>Type</th>
<th>Generic name</th>
<th>Usual dose &amp; timing</th>
<th>Duration of effect</th>
<th>Common side effects</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Narcotic</td>
<td>Morphine</td>
<td>10-15mg IM or 1-5 mg IV 30 minute before procedure</td>
<td>2 hours</td>
<td>Drowsiness, light-headedness, weakness, euphoria, dry mouth</td>
<td>Reverse with: Naloxone 0.4 mg IV</td>
<td></td>
</tr>
<tr>
<td>Narcotic</td>
<td>Pethidine</td>
<td>25-50 mg IV or 50-100 mg IM 30 minute before procedure</td>
<td>2 hours</td>
<td>Drowsiness, light-headedness, weakness, euphoria, dry mouth</td>
<td>Reverse with: Naloxone 0.4 mg IV</td>
<td></td>
</tr>
<tr>
<td>Non Narcotic</td>
<td>Ibuprofen</td>
<td>400-800mg orally 30-60 minutes before procedure</td>
<td>Up to 5 hours</td>
<td>Possible gastro intestinal upset</td>
<td>Anti prostaglandin effects</td>
<td></td>
</tr>
<tr>
<td>Non Narcotic</td>
<td>Paretamol</td>
<td>500-1000 mg oral 30-60 minutes before procedure</td>
<td>Up to 4 hours</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sedatives used with Analgesics</th>
<th>Type</th>
<th>Generic name</th>
<th>Usual dose &amp; timing</th>
<th>Duration of effect</th>
<th>Common side effects</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central Nervous System</td>
<td>Diazepam (Seidil)</td>
<td>5-10 mg IV or IM or 10 mg orally 30-60 minutes before procedure</td>
<td>2 hours</td>
<td>Blurred vision, Dizziness, Headache, Nausea, Redness &amp; pain at injection site numbness /tingling/pain of hands or feet</td>
<td>i) Diazepam has a slight amnesic effect. ii) Reverse with Flumazenil 0.2mg (2 ml) over 15 seconds</td>
<td></td>
</tr>
</tbody>
</table>

Complications of Local Anesthetics and Management

- Toxic Reaction (rare): Avoid by using smallest effective dose, and aspirating before each injection. If mild (numbness around mouth, dizziness, ringing in ears) give verbal support, and monitor closely for a few minutes. If severe (disorientation, twitching, convulsions), give oxygen immediately and give IV diazepam.

- Allergic Reaction (rare): If hives or rash develops give diphenhydramine (Benadryl) 25-50 mg IV. In respiratory distress, give epinephrine 0.4 mg (1:1000 solution) subcutaneously and support respiration.
INFECTION PREVENTION

Everyone who works at a health care facility is potentially at risk of infection not only the doctors, nurses and midwives who have direct contact with clients, but also those who wash the instruments and other items, clean up the procedure rooms and OT, and dispose of waste.

Very simple practices will reduce the risk of transmission of such blood borne and potentially fatal viruses as HIV, Hepatitis B and C (HBV and HCV) to the clients the healthcare workers and the community.

Terms

Antiseptic a chemical agent used on living objects to inhibit or kill microorganisms
Disinfectant a chemical agent used on inanimate objects (non-living) to inhibit or kill microorganisms
Sharps hypodermic needle with or without syringe, suture needle, scalpel blade
Decontamination a process, which kills some microorganisms including viruses that cause HIV and Hepatitis
High level disinfection (HLD) a process, which kills all microorganisms except some bacterial endospores
Sterilization a process, which kills all microorganisms including bacterial endospores

Hand washing

This simple act can greatly reduce the spread of disease.

We should wash our hands:
  1. When we arrive at work
  2. Before and after examining a client
  3. Before putting on and after removing gloves
  4. After touching any instrument or object which might be contaminated with blood or body fluids
  5. After using the latrine/toilet
  6. Before we leave work

Reminder: Always use running water to rinse hands, do not use a common basin or towel, and use a small bar of soap placed in a drainable soap dish.
Gloves

Surgical gloves
Reusable latex gloves which are either being sterile or HLD. Sterile gloves should be worn for surgical procedures (examples: minilap or laparoscopic tubal ligation, vasectomy or laparoscopic tubal occlusion). HLD gloves are acceptable when sterile ones are not available. HLD gloves should be worn for procedures where there will be contact with intact mucous membranes (examples: pelvic exam, IUD insertion, or medical termination of pregnancy). Clean gloves are required for laboratory blood draws. These gloves do not need to be HLD or sterile.

Utility gloves
Thick rubber gloves, which should be worn when handling contaminated items such as instruments, linens, bloody gauze, waste, or performing housekeeping and cleaning activities.

Antiseptics and Disinfectants

Antiseptics
Chemical solutions which reduce the number of microorganisms on the skin or mucous membrane without causing damage or irritation. Not all antiseptics can be used on mucous membrane (see table beside).

<table>
<thead>
<tr>
<th>Antiseptics</th>
<th>Skin</th>
<th>Mucous membrane</th>
</tr>
</thead>
<tbody>
<tr>
<td>Betadine</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Savlon</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Alcohol spirits</td>
<td>✓</td>
<td></td>
</tr>
</tbody>
</table>

Reminder: When using Betadine, wait 2-3 minutes before proceeding. When using alcohol, allow it to dry before proceeding.

Disinfectants
Chemicals which kill microorganisms on inanimate objects such as, instruments and surfaces (tables, floors, beds, walls). Not all disinfectants can be used on instruments and surfaces. (see table beside)

<table>
<thead>
<tr>
<th>Disinfectants</th>
<th>Surfaces (walls, floors, &amp; furnishings)</th>
<th>Instruments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chlorine (bleach powder)</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Cidex (2% Glutaraldehyde)</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Lysol (phenols)</td>
<td></td>
<td>✓</td>
</tr>
</tbody>
</table>

Reminder: Antiseptics are for body surfaces. Disinfectants are for use on instruments and all other surfaces. Neither one is capable of killing all microorganisms and can become contaminated. Therefore, no articles such as cotton balls, gauze, thermometers, instruments including lifters, suture needles, or scalpel blades should be stored in these solutions. These item should be stored in dry condition.
Processing instruments and other reusable items

The processing of instruments and other reusable items involves four steps:

1. Decontamination
2. Cleaning
3. Sterilizing or high level disinfection (HLD)
4. Storing

Each step as well as the order of the steps is important.

Decontamination

All instruments, gloves, and sharps should be placed immediately after use in a solution of 0.5% chlorine for 10 minutes. These items should then be thoroughly rinsed in running water. Always wear utility gloves. This process effectively kills blood borne viruses (HIV, HBV, HCV) and prevents tissue and blood from drying so the items are safer for the staff to handle and easier to clean. The chlorine solution should be prepared at the beginning of each day and replaced if noticeably contaminated.

Preparation of 0.5% chlorine solution

Mix, in a plastic container, 20 grams of bleach powder in 1 liter of water or 200 grams of powder in 10 liters of water.

Cleaning

Cleaning removes blood, tissue, and other foreign material and must be done before items can effectively be sterilized or HLD. To clean decontaminated instruments and other items, scrub all surfaces with a tooth brush in a detergent (not hand soap) and warm water solution. All items should be thoroughly cleaned and rinsed in running water. Always wear utility gloves. If items are to be wrapped or chemically processed, they must be air or cloth dried after rinsing.

Sterilization or High Level Disinfection (HLD)- Most decontaminated and cleaned items should either be sterilized (autoclaving) or HLD (boiling) before reuse.

Sterilization

Sterilizing is the preferred method for processing OT instruments and reusable items because it kills all microorganisms. All items should be dried, disassembled, and, if any instruments are jointed, the should be opened or unlocked before sterilization. Always use a sterile glove or instrument to handle unwrapped sterile items.

Autoclaving Loosely place unwrapped or wrapped instruments in a drum or tray. Arrange items so steam can contact all surfaces. Do not begin timing until the pressure requirement is met. Allow wrapped items to dry before removal from autoclave. **DO NOT AUTOCLAVE MVA SYRINGES OR CANNULA**
High level disinfection

HLD kills all microorganisms except, unlike sterilization, some bacterial endospores. They are the only acceptable alternatives to sterilization. A boiler is sometimes called a sterilizer but it does not sterilize items. All instruments should be disassembled, and jointed instruments should be opened or unlocked before processing. Always use a sterile/HLD glove or sterile/HLD instrument to handle processed items.

Boiling

Place instruments and other items in a pot of water. Cover completely with water and begin timing when the water comes to a rolling boil. Process at a gentle boil. Do not add anything to the water once timing begins. Boiling for 30 minutes

Storage

An unwrapped, sterile or HLD item must be stored dry in a sterile or HLD container, if not immediately used. The storage container should be dry and have a tight fitting lid. If an autoclave drum is used, the holes must be closed. These containers and wrapped instruments/packages should be kept in a dust, dirt, and insect free area. Properly stored items are considered sterile/HLD for 24 hours. To prepare a sterile container and lid, autoclave each for 30 minutes. To prepare a HLD container and lid either boil both pieces for 30 minutes.

<table>
<thead>
<tr>
<th>Items</th>
<th>Decontamination</th>
<th>Cleaning</th>
<th>Sterilization</th>
<th>HLD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instruments</td>
<td>Drop directly into chlorine solution and soak for 10 minutes. Rinse or clean immediately.</td>
<td>Disassemble instruments, if applicable. Scrub all surfaces of instrument including jointed areas and jaws. Hold instrument under water while cleaning to avoid splashing. Rinse and dry instruments that will be wrapped or chemically soaked.</td>
<td>Unwrapped Autoclaving Loosely arrange items. Place bowls and cups on their side. Pressure = 106kPa (15lbs/in²) temperature = 121°C (250°F), time = 20 minutes</td>
<td>Boil time = 30 minutes</td>
</tr>
</tbody>
</table>

| Wrapped Autoclaving | Do not stack or lie flat. Place on sides. pressure = 106kPa (15lbs/in²) temperature = 121°C (250°F), time = 30 minutes |
### MVA Instrument Processing Chart

<table>
<thead>
<tr>
<th>Items</th>
<th>Decontamination</th>
<th>Cleaning</th>
<th>Sterilization</th>
<th>HLD</th>
</tr>
</thead>
<tbody>
<tr>
<td>MVA instruments</td>
<td>Draw the chlorine solution through the cannula into the syringe, then drop the cannula/syringe directly into the solution and soak for 10 minutes. Rinse or clean</td>
<td>Flush the syringe and cannula several times with detergent solution. Completely disassemble syringe and wash all parts well. Carefully clean the cannula and its tip. Do not scrub with a brush because it can scratch the plastic material. Rinse thoroughly. Dry the syringes completely before reassembling.</td>
<td>Autoclave: No Note: It is not necessary to sterilize or HLD MVA syringes before reuse. However, if this practice is done, the syringe must be completely disassembled including O-ring and collar stop.</td>
<td>Boil: Cannulae only. Place lid or cover on pot. The cannulae can float on the surface. time = 20</td>
</tr>
</tbody>
</table>

### Housekeeping

The OT and instrument processing area should be mopped with a damp cloth each morning. When sweeping the floors, use a damp mop rather than a broom. In between procedures and at the end of the day, floor and furnishings should be wiped down with a cloth soaked in a disinfectant cleaning solution. Once a week, clean the OT and all its contents (ceiling and walls included) using this solution. To prepare the solution: mix enough detergent (not hand soap) in a 0.5% chlorine solution to make the solution mildly sudsy. Always wear utility gloves when cleaning. If gloves are not available, then place plastic bags over your hands.

**Reminder**: Never mix the 0.5% chlorine solution with products containing ammonia, ammonium chloride, or phosphoric acid. It releases a toxic chlorine gas.

Rooms should not be fumigated with formaldehyde. It is ineffective, time consuming, and the gases are toxic to humans. A thorough cleaning and scrubbing with a disinfectant cleaning solution is a more effective and less costly routine process.
POST ABORTION COUNSELING

"Counseling- face to face communication in which a counselor assists the woman in making her own decisions" must be a part of all post abortion care services. Post abortion counseling can address the specific needs and concern of the patient. Effective Post Abortion Counseling can provide sufficient psychological and emotional support before, during and after the procedure of definitive treatment.

Counseling in post abortion care can be provided by a variety of staff members. All can and should play the role of "counselor" when they interact with the woman. Staff, who provide counseling, must be non-judgmental, extremely sensitive to and respectful of women's emotions and feelings, in order to fulfill to the women’s specific needs.

Counselor should be knowledgeable, well trained and able to give accurate information in an unbiased, patient-sensitive manner. Counselor must always be aware of the need for privacy and confidentiality. Critical elements of all good counseling include the ability of the counselor to elicit and listen to a woman's need, concerns and to inform, educate and reassure using simple language and terms that the woman understand.

Counseling always involves two-way communication between the patient and the service provider, in which each spends time talking, listening, asking questions and giving answers. Post abortion counseling goes beyond just giving facts; it enables patients to apply information to their particular circumstances, to make informed choice and to cope up with the emotions involved.

Pre procedure Counseling

It is important to obtain sufficient medical information to make an accurate diagnosis and develop an appropriate treatment plan. The patients should be assured that the questions that are being asked are needed to treat her medical condition most effectively. When taking a history/performing a client assessment, providers should ask both open-ended and close-ended questions.

All women being treated for abortion complications have a right to know the followings:

- The patient's overall physical condition
- Results of physical and pelvic examinations and laboratory tests
- The time frame for treatment and follow up
- Treatment procedure and its risks and benefits
- Post operative care
- Warning signs
- Available contraceptive methods
- Preventive measures for the Sexually Transmitted Infections
- Information regarding other reproductive health services

Counselor must be sensitive to the patient's physical and emotional condition when providing information and should not force her to listen when she is not ready. Counselor should assess the patient's ability or capacity to provide or receive information and explore patient's needs, concerns and feelings.

Counselor must have the patient's informed consent for treatment procedure. If she is unable to do, then it must be taken from any family member or other accompanied responsible adult.

**During procedure Counseling**

Emotional support should be maintained by providing
- Positive, empathetic, verbal/non-verbal communication
- Gentleness while performing the MVA procedure

**Post procedure Counseling**

Post procedure counseling should be done when the patient is recovered from the procedure is over. It should begin by exploring the patient's feelings and concerns after the post abortion procedure in order to provide her with emotional support and encouragement. The information is being provided must be relevant to her needs.

Sometimes, patients may feel strong enough to talk to the counselor in a separate room, others prefer to stay in bed in the recovery room and have counseling there. Supportive counseling environment has a significant effect on the quality of counseling. Counseling should be conducted in a private location, preferably a room with a closed door. If the woman is not able to move from the recovery room, a curtain should be used for at least visual privacy.

Provider can respect the woman's right to confidentiality by speaking in a low voice and not by sharing her personal information with others without her permission.

The provider should provide a written post procedure information to the patient. The patient should know about the following:
- Possible side effects and warning signs
- How to take care of herself at home
The importance of follow up visit
Available contraceptive methods
The benefits and limitations of all contraceptive methods
Other reproductive health issues

The counselor should understand the cultural and personal factors that affect a woman's decision to use a family planning method. She should also assess the need for additional counseling and/or referral for other reproductive health services. If required, she may discuss about RTI/STI in detail.

Post Abortion Family Planning Counseling

An essential part of high quality post abortion family planning services is counseling, so that all women are able to make voluntary, well-informed decisions about family planning. Without this opportunity, women who have experienced an abortion, remain at risk of another unwanted pregnancy and unsafe abortion. The focus of counseling should be problem solving by helping the women to resolve the obstacles of family contraceptive use.

So the goals of post abortion family planning counseling are

➢ To help the women to understand the factors that led to an unwanted pregnancy
➢ To help her and her husband to understand that the various contraceptive methods are available.
➢ To help her and her husband to choose an appropriate contraceptive method and to use it effectively

During counseling, the counselor must keep in mind that not all post abortion clients had unwanted pregnancies, and some of them want to get pregnant again soon. In that case, there is no reason to discourage her from doing so.

<table>
<thead>
<tr>
<th>During counseling three important information that need to be given to the patient</th>
</tr>
</thead>
<tbody>
<tr>
<td>- They can become pregnant again before the next menstruation.</td>
</tr>
<tr>
<td>- There are safe family planning methods to prevent or delay pregnancy.</td>
</tr>
<tr>
<td>- There are places where they can obtain family planning services and methods.</td>
</tr>
</tbody>
</table>
**Individual Factors for family planning counseling during Post Abortion Care (more than one may apply)**

<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 temporary methods</td>
<td>▶ Seeking treatment for abortion complications suggests that the woman does not want to be pregnant</td>
</tr>
</tbody>
</table>
| Is under stress or in pain | ▶ Consider all temporary methods  
▶ Do not encourage use of permanent methods at this time  
▶ Provide referral for continued contraceptive care | ▶ Stress and pain interfere with making free, informed decisions.  
▶ The time of treatment for abortion complications is not a good time for a woman to make a permanent decision |
| Was using a contraceptive method when she became pregnant | ▶ 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  
▶ Make sure she understands how to use the method, get follow up care and re supply, discontinue use and change methods | ▶ 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 |
<table>
<thead>
<tr>
<th>If the woman...</th>
<th>Recommendations</th>
<th>Rationales</th>
</tr>
</thead>
</table>
| Had stopped using a method | ▶ Assess why woman stopped using contraception (e.g. side effects, lack of access to re supply etc)  
▶ 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 re supply, discontinue use and change methods | ▶ Unacceptability or lack of access may have led to the unwanted pregnancy  
▶ These factors may still be present and may lead to another unwanted pregnancy |
| Wants to become pregnant soon | ▶ Do not try to persuade her to accept a method  
▶ Provide information or a referral if the woman needs other reproductive health services | ▶ If the woman has had repeated spontaneous abortions, she may need to be referred for infertility treatment |
| Was the victim of sexual abuse or rape | ▶ Inform her about emergency contraception or other contraception if appropriate |  |

CHAPTER 7

Post Abortion Family Planning
POST ABORTION FAMILY PLANNING

Throughout the world, many women are trapped in a dangerous cycle of repeated unwanted pregnancy and unsafe, often illegal abortion. Although the importance of linking post abortion care and family planning services seems obvious, these two types of care are rarely offered together. Typically, emergency treatment services for post abortion complications do not include provision of or referral to family planning counseling and services. As a consequence, women are not getting access to the means of preventing future unwanted pregnancies as well as being exposed to the risk of additional unsafe abortions.

Therefore, the Program of Action of the 1994 International Conference on Population and Development (ICPD) urged all governments and other relevant intergovernmental and non-governmental organizations to deal with the health impact of unsafe abortion as a major health concern and to reduce the recourse abortion through expanded and improved family planning services. Through widespread use of family planning, one fourth of maternal death can be prevented.

Importance of Post Abortion Family Planning Services

A woman's fertility returns almost immediately after an incomplete abortion, as early as 11 days if the pregnancy was less than 12 weeks. Therefore, she must consider whether or not she wants to become pregnant soon.

In the case of spontaneous abortion, she may wish to become pregnant quickly and unless there are any medical problems, there is no reason to discourage her from doing so. Induced abortion always represents a clear desire not to be pregnant at this time. Thus the woman and her husband needs to receive information and counseling about her return to fertility and available contraceptive methods.

Post Abortion Family Planning Services

In general, nearly all modern contraceptive methods can be used immediately after emergency post abortion care provided, if

- There is no severe post abortion complication requiring further treatment
- The patient receives adequate counseling
- The provider screens properly for using a particular contraceptive method
- The patient has no specific risk factors for a given contraceptive method
The time of treatment of an incomplete abortion or abortion complications may not be the best time for her to make a permanent or long-lasting decisions. Natural family planning is not recommended until a regular menstrual pattern returns.

Post abortion family planning services address patients' individual needs and circumstances to provide acceptable and effective care and help the women to select an appropriate family planning method. This should be based on an individual assessment of every woman's situation. A woman's personal preferences, constraints and social situation play an important role in post abortion contraceptive uses as her clinical condition.

**Post Abortion Family Planning for women who have had repeated abortions**

In most instances, the counselor will not know the patient's repeated abortion history unless the woman chooses to disclose this information. If this occurs, the counselor should be aware that varying circumstances, over a woman's reproductive life might have prompted her to seek an abortion. For example, women who are consistent contraceptive users may experience failure of the method itself or may discontinue use for a brief time because of personal circumstances or problems in access to services.

This may be happened because the patient was unable to obtain a reliable supply of contraceptives, which has led to discontinuation of the method and resulting unintended pregnancy. So, the counselor and patient should discuss about contraceptive options, which are potentially more satisfactory and reliable for the woman.

A woman's ability to use a contraceptive method correctly and continuously is based on the resource of the community where she lives. To ensure the continuity of care, the service provider must consider woman's family planning needs within the context of accessible health care services. Therefore, family planning providers should know what services a woman will have access to when she returns home in order to provide an appropriate contraceptive method.
## Use of Contraceptive Methods by Clinical Condition

<table>
<thead>
<tr>
<th>Clinical condition during the first trimester abortion</th>
<th>Precautions</th>
<th>Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>No complications after treatment of incomplete abortion</td>
<td>a. <strong>Female Voluntary Sterilization</strong> It is not the best time for the patient to make decisions about this permanent method. &lt;br&gt;b. <strong>Natural Family Planning</strong> (periodic abstinence): do not be recommend until normal regular menstrual pattern returns</td>
<td>Consider all temporary methods &lt;br&gt;a. <strong>Oral contraceptive, Injectable or IUD, Norplant</strong> can begin use immediately. &lt;br&gt;b. <strong>Barrier method</strong> (Condom) can be used when sexual activity is resumed.</td>
</tr>
<tr>
<td>Confirmed or presumptive diagnosis of <strong>infection</strong> &lt;br&gt;► Sign of unsafe or unclean induced abortion &lt;br&gt;► Symptoms &amp; signs of sepsis or infection &lt;br&gt;► Unable to rule out infection</td>
<td>a. <strong>IUD</strong>: do not insert until infection is fully resolved (approximately three months) or risk of infection is ruled out &lt;br&gt;b. <strong>Female Voluntary Sterilization</strong> do not perform (approximately three months) until infection is fully resolved or risk of infection is ruled out</td>
<td>a. <strong>Oral contraceptive, Injectable, Norplant</strong> can begin use immediately. &lt;br&gt;b. <strong>Barrier method</strong> (Condom) can be used when sexual activity is resumed.</td>
</tr>
<tr>
<td>Clinical conditions during the first trimester abortion</td>
<td>Precautions</td>
<td>Recommendations</td>
</tr>
<tr>
<td>--------------------------------------------------------</td>
<td>-------------</td>
<td>-----------------</td>
</tr>
<tr>
<td>Injury or trauma to the genital tract</td>
<td>a. IUD do not insert and Female Voluntary Sterilization do not perform until uterine perforation or other serious injury has healed.</td>
<td>a. Oral Contraceptive, Injectable, Norplant can begin use immediately.</td>
</tr>
<tr>
<td>Uterine perforation with or without bowel injury</td>
<td>b. Male Barrier Method (condom) can be used when sexual activity is resumed with uncomplicated uterine perforation.</td>
<td></td>
</tr>
<tr>
<td>Serious vaginal or cervical injury including chemical burns</td>
<td>c. Female Sterilization can be done concurrently in absence of additional risk during the repair of uterine perforation or trauma through abdominal surgery.</td>
<td></td>
</tr>
<tr>
<td>Severe bleeding and related severe anemia (Hb&lt;7 gm/dl)</td>
<td>d. Progestin only pill use with caution until acute anemia improves.</td>
<td>a. Combined oral contraceptive Can begin use immediately (beneficial when hemoglobin is low)</td>
</tr>
<tr>
<td>Hemorrhage must be resolved before considering family planning</td>
<td>Injectable delay starting until acute anemia improves</td>
<td>b. Male barrier Method (condom) can be used when sexual activity is resumed</td>
</tr>
<tr>
<td></td>
<td>IUD delay insertion until acute anemia improves</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Norplant implants delay insertion until acute anemia improves</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Female Voluntary Sterilization do not perform procedure until the cause of hemorrhage or anemia resolved</td>
<td></td>
</tr>
</tbody>
</table>
# Use of Contraceptive methods by Clinical condition

<table>
<thead>
<tr>
<th>Clinical conditions during second trimester abortion</th>
<th>Precautions</th>
<th>Recommendations</th>
</tr>
</thead>
</table>
| Second trimester abortion                            | a. **IUD** : There is a very high expulsion rate for IUDs, which are inserted immediately after second trimester abortion. So insertion would be delayed for 4 to 6 weeks. | a. **Oral contraceptive**, **Injectable** and **Norplant** can begin use immediately.  
  b. **Barrier Methods** (Condom) can be used when sexual activity is resumed |
| If there is a bleeding disorder, patient may need blood or blood products prior to surgery. | b. **Female Voluntary Sterilization** : It can be done by using postpartum minilap procedure. If this technique is not possible, then the procedure would be delayed until the uterus returns to pre-pregnancy size (four to six weeks size). Because it is very difficult to locate the fallopian tubes until the uterus returns to pre-pregnancy position. | |
# Selection of Contraception by Methods

<table>
<thead>
<tr>
<th>Contraceptive methods</th>
<th>Starting time after the management of incomplete abortion</th>
<th>Advantage</th>
<th>Disadvantage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Latex Male condom</td>
<td>May begin use as soon as sexual intercourse is resumed.</td>
<td>Inexpensive</td>
<td>Less effective than IUD or hormonal methods</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No medical supervision required</td>
<td>Use with each episode of intercourse</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Easily discontinued</td>
<td>May interfere with intercourse</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Immediately effective</td>
<td>Re supply must be available</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Condoms provide protection against STI &amp; HIV</td>
<td>Requires continued motivation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Good interim method</td>
<td></td>
</tr>
<tr>
<td>Oral Contraceptive</td>
<td>May begin pill use immediately, preferably on the day of treatment</td>
<td>Highly effective</td>
<td>Re-supply must be available</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Can be started immediately even in presence of infection</td>
<td>Requires continued motivation and daily use</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Can be provided by non-physicians</td>
<td>Effectiveness may be lowered with long term use of certain medications like Rifampin, Dilantin, Griseofulvin</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Does not interfere with intercourse</td>
<td></td>
</tr>
<tr>
<td>Injectable (DMPA)</td>
<td>May be given immediately on the day of treatment</td>
<td>Highly effective</td>
<td>May cause irregular bleeding, especially amenorrhoea, excessive bleeding may occur in rare instances</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Can be started immediately even in presence of infection</td>
<td>Delayed return to fertility</td>
</tr>
<tr>
<td></td>
<td>May be appropriate for use, if the woman wants to delay choice of long term methods</td>
<td>Does not interfere with intercourse</td>
<td>Can not provide protection against STI &amp; HIV</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No supplies needed by the patients</td>
<td>Must receive injection every two or three months</td>
</tr>
<tr>
<td>Contraceptive methods</td>
<td>Starting time after the management of incomplete abortion</td>
<td>Advantage</td>
<td>Disadvantage</td>
</tr>
<tr>
<td>-----------------------</td>
<td>---------------------------------------------------------</td>
<td>------------</td>
<td>--------------</td>
</tr>
</tbody>
</table>
| Norplant (Progestin only) Implants | May be given immediately on the day of treatment | - Highly effective  
- Long term contraception (effective for 5 years)  
- Immediate return to fertility on removal  
- Does not interfere with intercourse  
- No supplies needed by the patients | - May cause irregular bleeding, especially spotting or amenorrhea  
- Trained provider required to insert and remove  
- Cost effectiveness depends on long term use  
- Can not provide protection against STD & HIV |
| IUD | Delay insertion until the injury is healed, bleeding is controlled, acute anemia improves, infection has been resolved  
- **First trimester:** IUD can be inserted immediately if the risk or presence of infection can be ruled out  
- **Second trimester:** Delay for six weeks unless equipment and expertise available for immediate post abortion insertion | - Highly effective  
- Long term contraception  
- Immediate return to fertility  
- Does not interfere with intercourse  
- No supplies needed by the patients  
- Requires only monthly checking for strings by the patient  
- Only one follow up visit needed unless there are any problems | - May increase menstrual bleeding and cramping during the first few months  
- Uterine perforation can occur during insertion  
- May increase risk of PID and subsequent infertility for women who have Chlamydia and Gonorrhea infection at the time of insertion  
- Can not provide protection against STD & HIV  
- Trained provider required to insert and remove |
<table>
<thead>
<tr>
<th>Contraceptive methods</th>
<th>Starting time after the management of incomplete abortion</th>
<th>Advantage</th>
<th>Disadvantage</th>
</tr>
</thead>
</table>
| Female Voluntary Sterilization      | - Can be performed immediately after treatment of post abortion complications unless infection or severe blood loss is present  
- Do not perform until infection is fully resolved or injury is healed (3 months) | - Permanent method  
- Once completed, no further action required  
- Most effective female method  
- Does not interfere with sexual intercourse  
- No change in sexual function  
- No long term side effect  
- Immediately effective | - Adequate counseling and fully informed consent are required which is very difficult at the time of emergency care  
- Slight possibility of surgical complications  
- Requires trained staff and appropriate equipment  
- Can not provide protection against STD & HIV |
| Natural Family Planning              | - Not recommended for immediate post abortion use  
- As the first ovulation after an abortion is always difficult to predict, it is unreliable until the return of normal menstrual pattern | - Not recommended for immediate post abortion use  
- As the first ovulation after an abortion is always difficult to predict, it is unreliable until the return of normal menstrual pattern | - Require thorough understanding of how to use effectively by the woman and her partner  
- Can not provide protection against STD & HIV  
- Difficult to use immediately after abortion  
- Unreliable |
| Vasectomy                           | - May be performed at any time                                                                                             | - Permanent method  
- Most effective male method  
- Once completed, no further action required  
- Does not interfere with intercourse  
- No change in sexual function  
- No long term side effects  
- Effective after 20 ejaculations or 12 weeks after the procedure | - Adequate counseling and fully informed consent are required before vasectomy procedures  
- Slight possibility of surgical complications  
- Required trained staff and appropriate equipment  
- Condoms recommended if at risk for STI/HIV  
- Not effective until after 20 ejaculations or 12 weeks after the procedure |

CHAPTER 8

Linkage to Other Reproductive Health Services
Linkage to Other Reproductive Health Services

An abortion patient may have other reproductive health concerns or additional health problems may be identified during the initial assessment, e.g. the patient may have an abnormal vaginal discharge. Linking to other reproductive health services is thus essential and logical, yet these services have been remained stand alone in most of the country's health delivery outlets. This stand alone situation and non-integration, frequently results to abortion patients having no access to other reproductive health care services.

Thus, service providers need to identify the reproductive health services that each of the abortion patients may need and offer her as wide a range of services as possible. For example, providers need to be alert to symptoms of reproductive tract infection (RTIs) to include sexually transmitted infections e.g. Trichomoniasis or Mucopurulent Cervicitis and provide the appropriate treatment. Also, for women over the age of 30, it may be possible to offer cervical cancer screening at the time of treatment or to provide referral to a facility where screening is available. Finally, women treated for spontaneous abortion may have special reproductive health care needs, such as special follow up for management of infertility. The different levels of health care facilities must be able to identify high-risk patients and provide instructions for reproductive health care.

Integrating the post abortion care services to existing services in the hospital, particularly the Obs/Gyn department, family planning services or other services providing reproductive health is more beneficial and sustainable compared to setting up entirely new service center. However, innovative solution should be find out in easing out the workload of the concerned staff. The integration should not be viewed by the staff as additional work or burden but as a part of the routine activity in the provision of management to the post abortion patients.
The patient may need followings other health services:
- RTIs/ STIs diagnosis and management
- Management of Gynecological pathology (e.g. Fibroid, Uterine Prolapse, Cervical Disease)
- Management of Recurrent or Habitual Abortion
- Infertility counseling and services
- Routine health maintenance: cervical screening, blood pressure, anemia screens
- Management of other medical problems such as: thyroid disease, heart disease
- Social services: Women terminating pregnancies can be victims of rape, coerced sex, abuse, and depression

**Reproductive Tract Infections (RTIs):**
Reproductive Tract Infections (RTIs) are the infections of the reproductive or the genital tract that include:
1. Sexually Transmitted Infections (STIs)
2. Endogenous infection (non-sexually acquired infections)
3. Iatrogenic infections

**Sexually Transmitted Infections (STIs)**
There is a clear distinction between Reproductive Tract Infection and Sexually Transmitted Infection. RTI includes all infections of the reproductive tract, whether transmitted sexually or not.
Types: There are two types of STI:
- STI affecting the Reproductive systems
- STI not affecting the Reproductive systems

**STI affects the Reproductive systems**
Examples:
- a. Trichomoniasis
- b. Gonorrhea
- c. Chlamydia
- d. Syphilis
- e. Herpes Genitalia
- f. Chancroid

**STI not affecting the Reproductive systems**
Examples:
- a. Hepatitis B, C & D
- b. HIV/AIDS
2. **Endogenous infection:** This is the infection, which is caused by the overgrowth of the organisms normally present in the reproductive tract. Example: Bacterial Vaginosis or Candidiasis, which is caused by disturbance in the equilibrium of the vaginal flora.

3. **Iatrogenic infection:** This is the infection which is introduced to the reproductive tract by badly managed childbirth or during delivery of family planning services, such as IUD insertion or unsafe abortion or improperly performed medical and surgical procedures, etc. Example: Pelvic Inflammatory Disease (PID) may be caused by iatrogenic infection.

**Note**

More details information: Technical Standard and Service Delivery Protocol for Management of RTI/STD

**Steps of RTI /STI case management:**

A. History  
B. Physical Examination  
C. Education  
D. Treatment (Syndromic Management)  
E. Clinical Follow up

A. **History:** During history taking, it is very important to earn the patient's trust and confidence, so as to be able to obtain all necessary information within a short period of time. The history should be taken where privacy can be ensured. The service provider should always maintain a respectful and non-judgmental attitude towards the patient.

B. **Physical Examination:** Physical examination is important because it helps the service provider to confirm the diagnosis. The service provider should behave professionally and sympathetically with the patient before and during the examination, should assure the patient who is reluctant to be examined and earn his/her compliance & rapport and should conduct the examination systematically.
C. Education: The following 4Cs are essential for educating and counseling the patient and/or the partner:
   a. Compliance with treatment
   b. Counseling for prevention
   c. Condoms - with demonstration of correct use
   d. Contact Tracing and Treatment

D. Treatment (Syndromic Management): The Syndromic Management endorsed by WHO, is based on identifying the various syndromes and managing the patient by using the respective flow chart or algorithm. Although RTI/STI are caused by many different organisms, these organisms give rise to only a limited number of syndromes.

Followings are the most common syndromes of RTI/STI:
- Urethral Discharge
- Vaginal Discharge
- Genital Ulcer
- Lower Abdominal Pain
- Scrotal Swelling
- Inguinal Bubo
- Neonatal Conjunctivitis

Note
Risk Assessment is considered positive if at least one of the following statements is true:
- His/her partner has symptoms or was recently treated for an STI
- S/he is a sex worker
- S/he has had more than one sexual partner or a new sexual partner in the past three months
Other Gynecological problems:

I. Fibroid:
It is the commonest of all pelvic tumors It is frequently multiple and arises in the myometrium. It is rare before the age of 20 years. Most commonly, it causes symptoms between the ages of 35 and 45 years. Fibroid is more common in nulliparous or relatively infertile women. 10

Symptoms:
The characteristic symptom is menorrhagia. The duration of the period may be normal or prolonged. The blood loss is heaviest on the second and third days. 10

Signs:
The tumour mass is usually hard. It is rounded or lobulated and movable from side to side. 10

Treatment:
Myomectomy. That's why the service provider should refer the patient to the Gynecological Department at the tertiary level facilities.

II. Uterine Prolapse:
Downward descent of the vagina and uterus is a common and disabling condition. Vaginal Prolapse can occur without uterine prolapse but the uterus can not descend without carrying the upper vagina with it. 10

Symptoms:
There is a common complaint of "something is coming out". The patient may feel a sensation of swelling or fullness in the vagina. There may be a dragging discomfort in the lower abdomen and pelvis. Urinary symptoms like increase frequency, difficulty in emptying the bladder, stress incontinence and backache depends on descent of the uterus. 10

Signs:
The presence, type and extent of uterine prolapse and presence of stress incontinence can usually be determined by asking the patient to bear down or to cough during examination. If there is doubt, the patient should be asked to stand or walk for some time before examination. 10

Treatment:
Hysterectomy. That's why the service provider should refer the patient to the Gynecological Department at the tertiary level facilities.
APPENDIX

Appendix 1  Equipments and Supplies for MVA procedure
Appendix 2  Compatible MVA Instruments parts
Appendix 3  Sample referral form
Appendix 4  Checklist on Assessment and Management of Incomplete Abortion
Appendix 5  Checklist on Counseling Skills of the Service Providers
Appendix 6  Flowchart on Management of Abortion
### Equipments and Supplies for Manual Vacuum Aspiration (MVA) Procedures

#### MVA Instruments
- MVA syringe (Double valve)
- Flexible cannulae of different size (6 to 12 mm)
- Silicone lubricant for lubricating MVA syringe O-ring
- Adapters

#### Basic instruments for MVA
- Uterine tenaculum or vulsellum forceps
- Bi valve (small, medium or large) or Self retaining speculum
- Sponge holding or ring forceps
- Consumable supplies needed to perform MVA
  - Antiseptic solution (Preferably an iodophor such as povidone iodine)
  - Sterile or high level disinfectant surgical gloves
  - Swabs / gauze
  - Cotton balls
  - Utility gloves
  - Clear glass container or basin for tissue inspection
  - Plastic Strainer for tissue inspection

#### Furniture and equipment
- Examination table with stirrups
- Strong light (e.g. goose neck lamp)
- Seat or tool for clinician
- Plastic buckets for decontamination solution (0.5% Chlorine)
- Puncture-proof container for disposal of sharps objects (e.g. needle)
- Leak-proof container for disposal of infectious waste products

---

*Adapted from: Post Abortion Care: A Reference Manual for Improving Quality of Care: Post Abortion Care Consortium*
Appendix 2

Compatible MVA Instrument Parts
Adapters for the Double Valve Syringe

<table>
<thead>
<tr>
<th>Cannula size</th>
<th>Adapter color</th>
</tr>
</thead>
<tbody>
<tr>
<td>4, 5, 6, mm</td>
<td>Blue</td>
</tr>
<tr>
<td>7 mm</td>
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<td>Dark Brown</td>
</tr>
<tr>
<td>10 mm</td>
<td>Dark Green</td>
</tr>
<tr>
<td>12 mm</td>
<td>None needed</td>
</tr>
</tbody>
</table>
APPENDIX 3

Sample referral form for Post abortion complications

The responsible health provider should complete this form for any patient who is referred for treatment of post abortion complications.
The form should accompany the patient to the referral center.

<table>
<thead>
<tr>
<th>Referral Form</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Patient Information</strong></td>
</tr>
<tr>
<td><strong>Name:</strong></td>
</tr>
<tr>
<td><strong>Date of Admission:</strong></td>
</tr>
<tr>
<td><strong>Diagnosis:</strong></td>
</tr>
<tr>
<td><strong>History:</strong> (Describe the patient's relevant reproductive history including number of pregnancies, birth etc)</td>
</tr>
<tr>
<td><strong>Clinical condition</strong> (Vital signs, physical / pelvic examination findings)</td>
</tr>
<tr>
<td><strong>Initial treatment:</strong> (Fluids, drugs given, action to control bleeding, any other medical steps taken)</td>
</tr>
<tr>
<td><strong>Assessment of Patient's condition / Other information</strong></td>
</tr>
</tbody>
</table>

---

Health Provider (print name) | Location (Hospital, clinic)
---|---

Signature | Date

## Appendix 4

Checklist on Assessment and Management of Incomplete Abortion

<table>
<thead>
<tr>
<th></th>
<th>Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Rapid general assessment</td>
</tr>
<tr>
<td></td>
<td>• If signs of shock, intra-abdominal injury, heavy bleeding, immediate resuscitation according to protocol.</td>
</tr>
<tr>
<td></td>
<td>• If / when stable, proceed as below.</td>
</tr>
<tr>
<td>2</td>
<td>History</td>
</tr>
<tr>
<td></td>
<td>• LMP</td>
</tr>
<tr>
<td></td>
<td>• Amount and duration of bleeding, cramping, clots</td>
</tr>
<tr>
<td></td>
<td>• Purulence of discharge</td>
</tr>
<tr>
<td></td>
<td>• Passage of tissue</td>
</tr>
<tr>
<td></td>
<td>• Abdominal pain/ shoulder pain</td>
</tr>
<tr>
<td></td>
<td>• Weakness, dizziness, light headedness</td>
</tr>
<tr>
<td></td>
<td>• Fevers, chills, sweats</td>
</tr>
<tr>
<td></td>
<td>• Attempts to terminate pregnancy: medical versus mechanical means</td>
</tr>
<tr>
<td>3</td>
<td>Physical examination</td>
</tr>
<tr>
<td></td>
<td>• Temperature, pulse rate, blood pressure</td>
</tr>
<tr>
<td></td>
<td>• <strong>General examination</strong>: Assess perfusion, hydration, oxygenation, heart, lungs etc</td>
</tr>
<tr>
<td></td>
<td>• <strong>Abdominal examination</strong>: Distension, tenderness, guarding / rebound, bowel sound</td>
</tr>
<tr>
<td></td>
<td>• <strong>Speculum and bimanual examination</strong>: Uterine size, tenderness, Adnexal masses, amount of bleeding, presence of tissue, dilatation of os, purulence of discharge, evidence of trauma or foreign bodies</td>
</tr>
<tr>
<td>4</td>
<td>Laboratory or Radiology tests if indicated</td>
</tr>
<tr>
<td>5</td>
<td>Formulation of Diagnosis and treatment plan</td>
</tr>
<tr>
<td>6</td>
<td>Discussion of Diagnosis and treatment plan with patient</td>
</tr>
<tr>
<td>7</td>
<td>Comments</td>
</tr>
<tr>
<td><strong>Management of Uncomplicated Incomplete Abortion by Uterine Evacuation</strong></td>
<td></td>
</tr>
<tr>
<td>---------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>- Empty the patient's bladder</td>
<td></td>
</tr>
<tr>
<td>- Transport the patient to appropriate treatment area, if different from assessment area</td>
<td></td>
</tr>
<tr>
<td>- Position patient comfortably on table and drape</td>
<td></td>
</tr>
<tr>
<td>- Review what will be done</td>
<td></td>
</tr>
<tr>
<td>- Tell the patient what is going to do</td>
<td></td>
</tr>
<tr>
<td>- Give additional analgesia/ anesthesia per procedure planned</td>
<td></td>
</tr>
<tr>
<td>- Perform surgical scrub</td>
<td></td>
</tr>
<tr>
<td>- Put on gloves for procedure</td>
<td></td>
</tr>
<tr>
<td>- Put on mask, gown, don hat in addition to gloves, if in operating theater</td>
<td></td>
</tr>
<tr>
<td>- Organize instruments for procedure</td>
<td></td>
</tr>
<tr>
<td>- Check vacuum of MVA syringe and leave charged</td>
<td></td>
</tr>
<tr>
<td>- Preparation of perineum</td>
<td></td>
</tr>
<tr>
<td>- Insertion of speculum</td>
<td></td>
</tr>
<tr>
<td>- Cleanse cervix and vagina with three application of antiseptic</td>
<td></td>
</tr>
<tr>
<td>- Remove any clots or tissue in vagina or cervical os</td>
<td></td>
</tr>
<tr>
<td>- Apply cervical tenaculum either horizontal or vertical position</td>
<td></td>
</tr>
<tr>
<td>- Administer para cervical block if patient awake and cervical dilatation necessary</td>
<td></td>
</tr>
<tr>
<td>- Allow 1-2 minutes to take effect</td>
<td></td>
</tr>
<tr>
<td>- Explain to the patient that procedure is about to start</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Cervical dilatation (if needed)</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>- Dilate cervix slowly and gradually to desired dilation</td>
</tr>
<tr>
<td>- Apply steady traction to tenaculum to straighten out cervical canal</td>
</tr>
<tr>
<td>- Start with largest cannula that easily passes through os</td>
</tr>
<tr>
<td>- Insert increasingly larger cannula through internal os only (do not insert cannula to fundus), applying gentle pressure and never forcing</td>
</tr>
<tr>
<td>- Leave cannula in place for 5-10 second prior to removal</td>
</tr>
<tr>
<td>- Stop when cervix sufficiently dilated to permit easy insertion of cannula</td>
</tr>
</tbody>
</table>
**Inspection of tissue**

- Collect all collected tissue in strainer, place over bowl
- Rinse with water, saline or weak acetic acid solution to remove blood and clots
- Empty bowl of rinsing water
- Place contents of strainer in bowl, re-suspend in water, saline or weak acetic acid solution
- Gently tease tissue with probe to expose villi
- If pregnancy >9 weeks, look for fetus parts
- Look also for grape like clusters suggestive of H-mole or partial mole
- Assess completeness of procedure
- Assess possibility of ectopic pregnancy
- Once complete, place POC in covered plastic waste container

- Assess condition of patient
- If patient is awake, ask how she is feeling
  
  (she should be feeling better as cramping subsides)
- Check vital signs
- Apply sanitary pad

*If patient conscious, quickly and simply explain findings of procedure and implications for further treatment*

*Assist patient from procedure table to recovery area*
### C Infection Prevention

- Place all instruments in decontaminating solution
- Dispose of rinsing solution down drain or into waste container
- Place POC in covered waste container
- Decontaminate any contaminated surfaces with chlorine solution
- Submerge gloved hands in chlorine solution, remove gloves by inverting, place in contaminated trash or chlorine solution (if reused)
- Remove all other surgical attire prior to leaving procedure area
- Wash hands thoroughly

### D Post Procedure Care

- Careful attention to condition of patient in recovery area
- Monitoring vital signs every 15 minutes for 1-2 hours
- Assess amount of bleeding and cramping
- Assess general condition
- Administer non-sedating analgesics as needed

- Provide additional information and counseling as appropriate to patient's condition and disposition from recovery (e.g. discharge instructions, family planning counseling, self care etc.)

Adapted from: PAC Clinical manual, Philippines, January 2001
Appendix 5

Checklist on Communication skills of Providers

<table>
<thead>
<tr>
<th>Initial Assessment</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Greets client respectfully</td>
<td></td>
</tr>
<tr>
<td>• Assures privacy and confidentiality</td>
<td></td>
</tr>
<tr>
<td>• Is sensitive to clients level of comfort</td>
<td></td>
</tr>
<tr>
<td>• Communicates what is happening during examination</td>
<td></td>
</tr>
<tr>
<td>• Client offered explanation of findings and recommended treatment in clear and simple terms</td>
<td></td>
</tr>
<tr>
<td>• Gives client the opportunity to ask questions</td>
<td></td>
</tr>
<tr>
<td>• Does not appear hurried or distracted</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>During treatment / procedure</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>• Makes assessment of need for pain control</td>
<td></td>
</tr>
<tr>
<td>• Stays in verbal contact with client</td>
<td></td>
</tr>
<tr>
<td>• Explain main steps of procedure as they happen</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>During recovery / prior to discharge</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>• Explains self care instructions</td>
<td></td>
</tr>
<tr>
<td>• Describes warning signs of complications</td>
<td></td>
</tr>
<tr>
<td>• Gives patient education materials</td>
<td></td>
</tr>
<tr>
<td>• Gives and explains proper use of all medications</td>
<td></td>
</tr>
<tr>
<td>•Assesses reproductive needs - desire for another child and when</td>
<td></td>
</tr>
<tr>
<td>• Explain availability and benefits of family planning</td>
<td></td>
</tr>
<tr>
<td>• Assess client's receptivity to detailed information</td>
<td></td>
</tr>
<tr>
<td>• Provides method specific information</td>
<td></td>
</tr>
<tr>
<td>• Gives specific information about where to obtain family planning services and when</td>
<td></td>
</tr>
<tr>
<td>• Assesses need for other reproductive health services*</td>
<td></td>
</tr>
<tr>
<td>• Gives information on where to obtain services</td>
<td></td>
</tr>
</tbody>
</table>

* STI prevention or treatment services, infertility services, antenatal care, child screening and immunization, gynecology services, domestic violence, rape crisis

Adapted from: PAC Clinical manual, Philippines, January 2001
Other Gynecological problems:

I. Fibroid:
It is the commonest of all pelvic tumors. It is frequently multiple and arises in the myometrium. It is rare before the age of 20 years. Most commonly, it causes symptoms between the ages of 35 and 45 years. Fibroid is more common in nulliparous or relatively infertile women. 10

Symptoms:
The characteristic symptom is menorrhagia. The duration of the period may be normal or prolonged. The blood loss is heaviest on the second and third days. 10

Signs:
The tumour mass is usually hard. It is rounded or lobulated and movable from side to side. 10

Treatment:
Myomectomy. That’s why the service provider should refer the patient to the Gynecological Department at the tertiary level facilities.

II. Uterine Prolapse:
Downward descent of the vagina and uterus is a common and disabling condition. Vaginal Prolapse can occur without uterine prolapse but the uterus can not descend without carrying the upper vagina with it. 10

Symptoms:
There is a common complaint of "something is coming out". The patient may feel a sensation of swelling or fullness in the vagina. There may be a dragging discomfort in the lower abdomen and pelvis. Urinary symptoms like increase frequency, difficulty in emptying the bladder, stress incontinence and backache depends on descent of the uterus. 10

Signs:
The presence, type and extent of uterine prolapse and presence of stress incontinence can usually be determined by asking the patient to bear down or to cough during examination. If there is doubt, the patient should be asked to stand or walk for some time before examination. 10

Treatment:
Hysterectomy. That's why the service provider should refer the patient to the Gynecological Department at the tertiary level facilities.
APPENDIX

Appendix 1  Equipment and Supplies for MVA procedure
Appendix 2  Compatible MVA Instruments parts
Appendix 3  Sample referral form
Appendix 4  Checklist on Assessment and Management of Incomplete Abortion
Appendix 5  Checklist on Counseling Skills of the Service Providers
Appendix 6  Flowchart on Management of Abortion
# Appendix 1

## Equipments and Supplies for Manual Vacuum Aspiration (MVA) Procedures

### MVA Instruments
- MVA syringe (Double valve)
- Flexible cannulae of different size (6 to 12 mm)
- Silicone lubricant for lubricating MVA syringe O-ring
- Adapters

### Basic instruments for MVA
- Uterine tenaculum or vulsellum forceps
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Adapted from: Post Abortion Care: A Reference Manual for Improving Quality of care: Post Abortion Care Consortium
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Adapters for the Double Valve Syringe

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</tr>
<tr>
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</tr>
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APPENDIX 3

Sample referral form for Post abortion complications

The responsible health provider should complete this form for any patient who is referred for treatment of post abortion complications. The form should accompany the patient to the referral center.

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<tbody>
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<td><strong>Patient Information</strong></td>
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<tr>
<td>Name:</td>
</tr>
<tr>
<td>Date of Admission:</td>
</tr>
<tr>
<td>Diagnosis:</td>
</tr>
<tr>
<td>History: (Describe the patient's relevant reproductive history including number of pregnancies, birth etc)</td>
</tr>
<tr>
<td>Clinical condition: (Vital signs, physical / pelvic examination findings)</td>
</tr>
<tr>
<td>Initial treatment: (Fluids, drugs given, action to control bleeding, any other medical steps taken)</td>
</tr>
<tr>
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Health Provider (print name) __________________________ Location (Hospital, clinic) __________________________

Signature __________________________ Date __________________________

## Appendix 4

Checklist on Assessment and Management of Incomplete Abortion

<table>
<thead>
<tr>
<th></th>
<th>A. Assessment</th>
</tr>
</thead>
<tbody>
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<td>1</td>
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<td></td>
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</tr>
<tr>
<td></td>
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</tr>
<tr>
<td></td>
<td>- Amount and duration of bleeding, cramping, clots</td>
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<tr>
<td></td>
<td>- Purulence of discharge</td>
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</tr>
<tr>
<td></td>
<td>- Weakness, dizziness, light headedness</td>
</tr>
<tr>
<td></td>
<td>- Fevers, chills, sweats</td>
</tr>
<tr>
<td></td>
<td>- Attempts to terminate pregnancy: medical versus mechanical means</td>
</tr>
<tr>
<td>3</td>
<td>Physical examination</td>
</tr>
<tr>
<td></td>
<td>- Temperature, pulse rate, blood pressure</td>
</tr>
<tr>
<td></td>
<td>- General examination: Assess perfusion, hydration, oxygenation, heart, lungs etc</td>
</tr>
<tr>
<td></td>
<td>- Abdominal examination: Distension, tenderness, guarding/rebound, bowel sound</td>
</tr>
<tr>
<td></td>
<td>Speculum and bimanual examination: Uterine size, tenderness, Adnexal masses, amount of bleeding, presence of tissue, dilatation of os, purulence of discharge, evidence of trauma or foreign bodies</td>
</tr>
<tr>
<td>4</td>
<td>Laboratory or Radiology tests if indicated</td>
</tr>
<tr>
<td>5</td>
<td>Formulation of Diagnosis and treatment plan</td>
</tr>
<tr>
<td>6</td>
<td>Discussion of Diagnosis and treatment plan with patient</td>
</tr>
<tr>
<td>7</td>
<td>Comments</td>
</tr>
</tbody>
</table>
### Management of Uncomplicated Incomplete Abortion by Uterine Evacuation

- Empty the patient's bladder
- Transport the patient to appropriate treatment area, if different from assessment area
- Position patient comfortably on table and drape
- Review what will be done
- Tell the patient what is going to do
- Give additional analgesia/anesthesia per procedure planned
- Perform surgical scrub
- Put on gloves for procedure
- Put on mask, gown, don hat in addition to gloves, if in operating theater
- Organize instruments for procedure
- Check vacuum of MVA syringe and leave charged
- Preparation of perineum
- Insertion of speculum
- Cleanse cervix and vagina with three application of antiseptic
- Remove any clots or tissue in vagina or cervical os
- Apply cervical tenaculum either horizontal or vertical position
- Administer para cervical block if patient awake and cervical dilatation necessary
- Allow 1-2 minutes to take effect
- Explain to the patient that procedure is about to start

### Cervical dilatation (if needed)

- Dilate cervix slowly and gradually to desired dilation
- Apply steady traction to tenaculum to straighten out cervical canal
- Start with largest cannula that easily passes through os
- Insert increasingly larger cannula through internal os only (do not insert cannula to fundus), applying gentle pressure and never forcing
- Leave cannula in place for 5-10 second prior to removal
- Stop when cervix sufficiently dilated to permit easy insertion of cannula
## Inspection of tissue

- Collect all collected tissue in strainer, place over bowl
- Rinse with water, saline or weak acetic acid solution to remove blood and clots
- Empty bowl of rinsing water
- Place contents of strainer in bowl, re-suspend in water, saline or weak acetic acid solution
- Gently tease tissue with probe to expose villi
- If pregnancy >9 weeks, look for fetus parts
- Look also for grape-like clusters suggestive of H-mole or partial mole
- Assess completeness of procedure
- Assess possibility of ectopic pregnancy
- Once complete, place POC in covered plastic waste container

## Assess condition of patient
- If patient is awake, ask how she is feeling (she should be feeling better as cramping subsides)
- Check vital signs
- Apply sanitary pad

If patient conscious, quickly and simply explain findings of procedure and implications for further treatment

Assist patient from procedure table to recovery area
### C Infection Prevention

- Place all instruments in decontaminating solution
- Dispose of rinsing solution down drain or into waste container
- Place POC in covered waste container
- Decontaminate any contaminated surfaces with chlorine solution
- Submerge gloved hands in chlorine solution, remove gloves by inverting, place in contaminated trash or chlorine solution (if reused)
- Remove all other surgical attire prior to leaving procedure area
- Wash hands thoroughly

### D Post Procedure Care

- Careful attention to condition of patient in recovery area
- Monitoring vital signs every 15 minutes for 1-2 hours
- Assess amount of bleeding and cramping
- Assess general condition
- Administer non-sedating analgesics as needed

- Provide additional information and counseling as appropriate to patient's condition and disposition from recovery (e.g. discharge instructions, family planning counseling, self care etc.)

Adapted from: PAC Clinical manual, Philippines, January 2001
## Appendix 5

### Checklist on Communication skills of Providers

<table>
<thead>
<tr>
<th>Initial Assessment</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greets client respectfully</td>
<td></td>
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<tr>
<td>Assures privacy and confidentiality</td>
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<tr>
<td>Is sensitive to clients level of comfort</td>
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<tr>
<td>Communicates what is happening during examination</td>
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<tr>
<td>Client offered explanation of findings and recommended treatment in clear and simple terms</td>
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<tr>
<td>Gives client the opportunity to ask questions</td>
<td></td>
</tr>
<tr>
<td>Does not appear hurried or distracted</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>During treatment /procedure</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Makes assessment of need for pain control</td>
<td></td>
</tr>
<tr>
<td>Stays in verbal contact with client</td>
<td></td>
</tr>
<tr>
<td>Explain main steps of procedure as they happen</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>During recovery / prior to discharge</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Explains self care instructions</td>
<td></td>
</tr>
<tr>
<td>Describes warning signs of complications</td>
<td></td>
</tr>
<tr>
<td>Gives patient education materials</td>
<td></td>
</tr>
<tr>
<td>Gives and explains proper use of all medications</td>
<td></td>
</tr>
<tr>
<td>Assesses reproductive needs - desire for another child and when</td>
<td></td>
</tr>
<tr>
<td>Explain availability and benefits of family planning</td>
<td></td>
</tr>
<tr>
<td>Assesses client's receptivity to detailed information</td>
<td></td>
</tr>
<tr>
<td>Provides method specific information</td>
<td></td>
</tr>
<tr>
<td>Gives specific information about where to obtain family planning services and when</td>
<td></td>
</tr>
<tr>
<td>Assesses need for other reproductive health services*</td>
<td></td>
</tr>
<tr>
<td>Gives information on where to obtain services</td>
<td></td>
</tr>
</tbody>
</table>

* STI prevention or treatment services, infertility services, antenatal care, child screening and immunization, gynecology services, domestic violence, rape crisis

Adapted from: PAC Clinical manual, Philippines, January 2001

**Technical Standard and Service Delivery Guideline**

99
PATIENT WITH BLEEDING

Take history

**HISTORY**
- Last menstrual period
- Length of amenorrhoea

**HISTORY**
- Duration & amount of bleeding
- Duration & severity of cramping

**Amenorrhoea**
- Onset of vaginal bleeding before 28 weeks of pregnancy
- Abdominal cramps

Abortion/
Ectopic pregnancy

**Amenorrhoea**
- Onset of vaginal bleeding after 28 weeks of pregnancy
- Pain may or may not be present

Antepartum haemorrhage (APH)
Management

1. Threatened abortion
   Treatment -
   - Rest in bed during bleeding & 3 days after bleeding has stopped
   - Apply sterile vulval pad
   - Tab. Diazepam 5-10 mg daily for few days
   - Monitor and record vital signs
   - If vaginal bleeding does not stop, refer
   Advice -
   - Preserve vulval pad & anything expelled out per vagina for inspection
   - Report if bleeding continues
   - Avoid coitus for at least one month
   Laboratory tests -
   - Blood - Hb%, grouping, Rh typing
   - Urine for R/E & M/E

2. Incomplete abortion
   Treatment -
   - If early abortion - MVA will be done in labour room. It should be noted that if blood transfusion is needed for patient, patient must be transferred to comprehensive EOC facility
   - If late abortion - Exploration of uterus under general anaesthesia
   Laboratory tests -
   - Blood - for Hb%, grouping, Rh typing
   - Urine - for sugar and albumin

3. Inevitable abortion
   Treatment -
   - Rest in bed
   - Apply sterile vulval pad
   - Monitor and record vital signs
   If patient is in shock -
   - Inj. 5% D/N/S 1000 cc I/V
   - Inj. Amoxicillin 500 mg I/V.
   - Send blood for grouping, Rh typing
   Evacuation -
   - <12 wks size - Evacuation under general anaesthesia or refer
   - >12 wks size - start 10 unit oxytocin in 5% D/A 500 cc at a rate of 30-40 drops/min, perform MVA or refer
   Laboratory tests -
   - Blood - for Hb%, grouping, Rh typing
   - Urine - for sugar and albumin
Management

4. Septic abortion

1. Infection localised to the uterus -
   - Inj. Amoxicillin 500 mg 8 hourly I/V
   - Inj. Metronidazole 500 mg 8 hourly I/V
   - Inj. Gentamycin 80 mg 8 hourly and then refer

2. Infection spreads to peritoneum
   leading to pelvic peritonitis, general peritonitis & pelvic abscess -
   - Patient should be kept nothing by mouth
   - Introduce Ryles tube
   - I/V fluid (Inj. Hartsol/Lactoride 1000 cc) to maintain nutrition,
   - Inj. Amoxicillin 500 mg I/V,
   - Inj. Metronidazole 500 mg I/V and
   - Inj. Gentamycin 80 mg I/V 8 hourly and refer

3. If generalised peritonitis -
   - Nasogastric suction
   - Introduce Ryles tube
   - If pt. is not responding to treatment laparotomy is indicated and refer if facilities for laparotomy is not available

Laboratory tests
   - Blood - Hb%, grouping & Rh typing
   - Urine - for sugar and albumin

5. Missed abortion

Treatment -
   - Attempt to evacuate the uterus or refer to hospital

Laboratory tests
   - Blood - Hb%, grouping & Rh typing

6. Complete abortion

Treatment -
   - No further treatment is required
   - If any doubt about complete expulsion and the products persists, uterine evacuation curettage should be done
   - Give Iron - folate tablets for 1 month
Bibliography

6. Geoffrey Chamberlain, Obstetrics by Ten Teachers, Sixth Edition
9. WHO: Post Abortion Family Planning: A practical guide for program managers
15. AVSC International: Infection Prevention: A reference booklet for health care providers, 2000
18. IPAS: Manual Vacuum Aspiration guide for Clinicians