

# Participant's Manual

*A comprehensive training course*

11

## MVA for Treatment of Incomplete Abortion



 **Pathfinder**  
INTERNATIONAL  
MEDICAL SERVICES



Comprehensive  
Reproductive Health and Family Planning  
Training Curriculum

**MODULE 11:  
MANUAL VACUUM  
ASPIRATION (MVA)  
FOR TREATMENT OF  
INCOMPLETE ABORTION**

***Participant's Manual***

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Pathfinder International  
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# **PARTICIPANT HANDOUTS**



## Participant Handout 0.1: Defining Participant's Expectations of the Course

1. What do you hope to accomplish during this course?
2. Do you anticipate any difficulties during this course?
3. While you attend this training, what will you be missing at home? (For example, having a young baby at home or a sick family member.)
4. While you attend the training, what will you be missing at work? (For example, there is no one to cover your position or certain work will not be completed.)
5. How do you think this training will help you at work?

## Participant Handout 0.2: Suggestions for Effective Participation

### DO:

- Ask a question when you have one.
- Feel free to share an illustration.
- Request an example if a point is not clear.
- Search for ways in which you can apply a general principle or idea to your work.
- Think of ways you can pass on ideas to your subordinates and co-workers.
- Be skeptical—don't automatically accept everything you hear.
- Participate in the discussion.

### DON'T:

- Try to develop an extreme problem just to prove the trainer doesn't have all the answers. (The trainer doesn't.)
- Close your mind by saying, "This is all fine in theory, but..."
- Assume that all topics covered will be equally relevant to your needs.
- Take extensive notes; the handouts will satisfy most of your needs.
- Sleep during class time.
- Discuss personal problems.

## Participant Handout 0.3: Training Schedule

Time	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6
8:30 am– 10:30 am	Opening Introduction and pre-test (2 hours 5 min.)	"Where are We?" SO #3 - continued SO #4 (4 hours 15 min.)	"Where are We?" SO #5 - continued	"Where are We?" SO #9 (1 hour 5 min.) SO #10 (2 hours.)	SO #12-continued SO #13 (1 hour 45 min.)	Field Visit SO #15- continued
10:30 am– 10:45 am	<b>Break</b>	<b>Break</b>	<b>Break</b>	<b>Break</b>	<b>Break</b>	<b>Break</b>
10:45 am– 12:45 pm	SO #1 (20 min.) SO #2 (1 hour.) SO #3 (4 hours 30 min.)	SO #4 - continued	SO #5 –continued SO #6 (2 hours 15 min.)	SO #10-continued SO #11 (1 hour 30 min.)	SO #13 continued SO #14 (2 hours 45 min.)	Field Visit SO #15- continued
12:45 pm– 1:45 pm	<b>Lunch</b>	<b>Lunch</b>	<b>Lunch</b>	<b>Lunch</b>	<b>Lunch</b>	<b>Lunch</b>
1:45 pm– 3:30 pm	SO #3- continued	SO #4 - continued	SO #6 -continued SO #7 (1 hour 10 min.)	SO #11-continued SO #12 (2 hours 15 min.)	SO #14-continued	Field Visit Reports and Action Plans SO #15- continued
3:30 pm– 3:45 pm	<b>Break</b>	<b>Break</b>	<b>Break</b>	<b>Break</b>	<b>Break</b>	<b>Break</b>
3:45 pm– 5:00 pm	SO #3 - continued Reflections	SO #5 (3 hours 30 min.) Reflections	SO #7 – continued SO #8 (45 min.) Reflections	SO #12-continued	SO #15 (1 day 1 hour)	Action Plan Reports Post-test Px Evaluation SO #15- continued <i>This will be a long day.</i>

**Note:** SO = Specific Objective  
The clinical practicum is not included in the training schedule.

## Participant Handout 0.4: Where Are We? and Reflections

### Where Are We?

Starting each day with “Where are We?” is our opportunity to share insights, clarify issues, resolve problems, and review the previous day’s material we need to remember so that each of us can get the most out of the course and each day’s experiences.

### Reflections

After a full day of activities, we need to take time to look over what we have done and examine what it means to us individually. This is a method to explore how what we have learned can be applied in a broader setting.

The “Reflections” activity will be our opportunity to make these analyses. It is also an opportunity for the trainers and Px to share feedback on the training activities and to identify areas that need reinforcement or further discussion. Therefore, at the end of each day, we will use various methods of conducting this activity to reflect on the day’s work.

For the first session of “Reflections,” each Px then should answer the following questions and share responses with the group:

- What did I like about today and why?
- What did I not like about today and why?
- What did I learn and experience today that I will be able to use?

## Participant Handout 0.5: Pre-Test

**Instructions: Circle all the answers that apply. Some questions have more than one correct answer.**

1. The return to fertility following a first trimester abortion is:
  - a. 2–3 weeks after the abortion.
  - b. 30 days after the abortion.
  - c. Following the first menstruation after the abortion.
  - d. All of the above.
  - e. None of the above.
  
2. The following aspects must be taken into account to provide information on contraception for postabortion patients:
  - a. Reproductive risk.
  - b. Effectiveness of method.
  - c. Patient preference for a particular method.
  - d. Availability of a wide range of contraceptive options.
  - e. All of the above.
  
3. The family planning counseling process may be described as:
  - a. A one-way communication process in which the provider asks the questions and the client answers them.
  - b. A onetime process in which a client learns everything about the family planning methods.
  - c. A process of interpersonal communication through which emotional support is given to the client to help her make a decision.
  - d. An ongoing communication process that takes place at every health center and family planning service encounter.
  
4. Informed choice means that a family planning client:
  - a. Has been informed about all methods and agrees to use the contraceptive method the provider recommends.
  - b. Has informed the provider about the method s/he wants.
  - c. Has been informed about the side effects of the method s/he has chosen.
  - d. Has the right to choose any method s/he wants (including the right not to choose any method), based on full information about the benefits and risks of all the methods available; and has been counseled on all aspects of the method chosen.
  
5. Which of the following are good examples of *nonverbal communication*?
  - a. Stating instructions clearly
  - b. Looking directly at the patient
  - c. Using simple language
  - d. Making encouraging gestures

6. Which of the following statements related to general anesthesia is true?
  - a. Provides high level of safety and maximum participation of patient
  - b. Increases the risk of complications, lengthens time of recovery, and has negative physiologic effects on the patient
  - c. Produces a minimum of physiologic disorders allowing firm contraction of uterus
  - d. Is followed by a prompt recovery
  
7. Which of the following strategies is/are applicable for pain management during the MVA:
  - a. Showing breathing techniques to the patient to help her relax during the procedure.
  - b. Telling her that the procedure is "simple" and "it won't hurt."
  - c. Explaining that during the procedure she might experience a discomfort similar to a menstrual cramp.
  - d. Telling the patient that you want her to ask for additional pain medication if the pain becomes too strong.
  
8. Which are some of the ways to reduce anxiety in a patient during the MVA procedure?
  - a. Good communication and supportive attitude of the service providers
  - b. Use of sedatives
  - c. Clear explanation of each step of the procedure
  - d. Telling her the procedure won't hurt
  
9. Which are the elements to be considered in the selection of the diameter of the cannula in the treatment of incomplete abortion?
  - a. The age of the patient and the LMP
  - b. The position of the uterus and the degree of cervical dilation
  - c. Sign of infection and the size of the uterus
  - d. The type of anesthesia used and the degree of dilation
  - e. The size of the uterus by bimanual examination and the degree of cervical dilation
  
10. What is the best way to determine the size of the uterus before MVA?
  - a. Examining the cervix
  - b. History of amenorrhea
  - c. Bimanual examination
  - d. Speculum examination
  
11. Which of the following are contra-indications to the use of MVA for treatment of incomplete abortion?
  - a. Uterus over 12 weeks LMP in size
  - b. Urinary tract infection
  - c. Acute cervicitis or pelvic infection, without treatment
  - d. Anemia

12. Which of the following are appropriate High Level Disinfection (HLD) methods for disinfecting MVA cannula?
  - a. Autoclave for 10 minutes
  - b. Soaking in enzymatic soap for 20 minutes
  - c. Soaking in 2% glutaraldehyde (Cidex) for 20 minutes
  - d. Soaking in 0.5% chlorine solution for 20 minutes
  
13. Which of the following is the most appropriate method for sterilizing MVA equipment?
  - a. Soaking in 2% glutaraldehyde (Cidex) for 10 hours
  - b. Soaking in Savlon for 1 hour
  - c. Autoclaving for 1 hour
  - d. Soaking in alcohol 70% for 20 minutes
  
14. A woman comes for treatment of incomplete abortion and on vaginal examination, has an infection. She requests to have an IUD inserted. The service provider should:
  - a. Tell her an IUD is not the method for her.
  - b. Insert the IUD and give her an antibiotic.
  - c. Not insert the IUD, wait for resolution of the infection (3 months), and suggest the use of another method during those 3 months.
  - d. Tell her to return for family planning after her next menstrual period.
  
15. A postabortion patient is experiencing anemia. Which contraceptive method may be the most appropriate for her?
  - a. IUD
  - b. Minilaparotomy
  - c. Combined oral contraceptives
  - d. A Norplant implant
  
16. Which of the following are signs that the MVA procedure is complete?
  - a. Walls of the uterus feel smooth
  - b. Walls of the uterus feel gritty
  - c. Uterus contracts around the cannula
  - d. The cervix relaxes
  
17. Which of the following statements are true about the use of a local anesthetic (paracervical block) when performing a MVA procedure?
  - a. The paracervical block reduces the pain from dilating the os.
  - b. Local anesthesia can stop the pain completely.
  - c. The best local anesthetic to use is 1% lidocaine without epinephrine.
  - d. The local anesthetic stops the pain caused by uterine contractions related to the emptying of the uterus.

18. When MVA is used for treatment of incomplete abortion, women are likely to feel pain from:
- Headache.
  - Cervical movement/manipulation.
  - Leg cramps.
  - Uterine cramps.
19. What is the best way to determine uterine size?
- Looking at the cervix
  - Palpating the abdomen
  - Bimanual examination
  - Calculating the LMP (Last Menstrual Period)
20. Which of the following are signs of infection following an unsafe abortion?
- High blood pressure
  - Foul-smelling vaginal discharge
  - Chills, fever, sweats
  - Severe bleeding

**Instructions: Read the statements below and place a mark in the true or false space provided.**

21. In the presence of infection, the MVA procedure should be done under antibiotic cover. ( ) True ( ) False
22. During the MVA procedure, counseling reduces anxiety and therefore lessens pain. ( ) True ( ) False
23. The following are elements, which should be incorporated into each counseling session: privacy, confidentiality, and technical jargon. ( ) True ( ) False

During the counseling/orientation process the service provider must:

24. Insist that the client express her feelings. ( ) True ( ) False
25. Inquire about reproductive and family planning history. ( ) True ( ) False
26. Offer information about what to expect during and after the MVA procedure. ( ) True ( ) False
27. Show a preference for a particular method. ( ) True ( ) False
28. If the cervix is open, you do not need to do a paracervical block. ( ) True ( ) False

## Participant Handout 1.1: Global and Regional Annual Estimates of Incidence and Mortality from Unsafe Abortions, 1995-2000

	Estimated number of unsafe abortions (000s)	Incidence rate (unsafe abortions per 1000 women 15-49)	Incidence ratio (unsafe abortions per 100 live births)	Estimated number of deaths due to unsafe abortion	Mortality ratio (deaths due to unsafe abortion per 100 000 live births)	Proportion of maternal deaths (% of maternal deaths due to unsafe abortion)
<b>WORLD TOTAL</b>	<b>20 000</b>	<b>13</b>	<b>15</b>	<b>78 000</b>	<b>57</b>	<b>13</b>
<b>MORE DEVELOPED REGIONS*</b>	900	3	7	500	4	13
<b>LESS DEVELOPED REGIONS</b>	<b>19 000</b>	<b>16</b>	<b>16</b>	<b>77 500</b>	<b>63</b>	<b>13</b>
<b>AFRICA</b>	<b>5 000</b>	<b>27</b>	<b>16</b>	<b>34 000</b>	<b>110</b>	<b>13</b>
Eastern Africa	1 900	36	19	16 000	153	14
Middle Africa	600	28	14	4 000	98	10
Northern Africa	600	15	13	1 200	24	7
Southern Africa	200	16	13	800	49	19
Western Africa	1 600	31	16	12 000	121	12
<b>ASIA*</b>	<b>9 900</b>	<b>11</b>	<b>13</b>	<b>38 500</b>	<b>48</b>	<b>12</b>
Eastern Asia*	**	**	**	**	**	**
South-central Asia	6 500	19	17	29 000	72	13
South-eastern Asia	2 800	21	23	8 100	66	15
Western Asia	500	12	11	1 100	20	6
<b>EUROPE</b>	<b>900</b>	<b>5</b>	<b>12</b>	<b>500</b>	<b>6</b>	<b>17</b>
Eastern Europe	800	10	25	500	15	24
Northern Europe	<30	1	2	<20	0.2	2
Southern Europe	<90	2	6	<20	1	10
Western Europe	**	**	**	**	**	**
<b>LATIN AMERICA AND CARIBBEAN</b>	<b>4 000</b>	<b>30</b>	<b>36</b>	<b>5 000</b>	<b>41</b>	<b>21</b>
Caribbean	200	17	21	600	71	18
Central America	900	26	26	700	20	14
South America	3 000	34	42	3 500	47	24
<b>NORTHERN AMERICA</b>	<b>**</b>	<b>**</b>	<b>**</b>	<b>**</b>	<b>**</b>	<b>**</b>
<b>OCEANIA*</b>	<b>30</b>	<b>15</b>	<b>12</b>	<b>150</b>	<b>51</b>	<b>8</b>

\* Japan, Australia, and New Zealand have been excluded from the regional estimates, but are included in the total for developed countries.

\*\* For regions where the incidence is negligible, no estimates are shown.

**Source:** WHO. *Unsafe abortion: Global and regional estimates of incidence of and mortality due to unsafe abortion with a listing of available country data*. 3rd edition. 1998. Geneva: WHO, Division of Reproductive Health.

## Participant Handout 2.1: Fertility Planning Status

Country	Year of Demographic and Health Survey	% Births Wanted, Later	% Births Unwanted	Total
Bangladesh	1996-1997	19.7	11.2	30.9
Brazil	1996	26.1	22.3	48.4
Bolivia	1998	12.8	56.4	69.2
Egypt	1995	10.5	20.2	30.7
Haiti	1994-1995	20.6	33.7	54.3
Indonesia	1997	8.8	8.3	17.1
Philippines	1998	26.9	18.2	45.1
Jordan	1997	20.4	16.9	37.3
Kenya	1998	37.2	11/1	48.3
Nepal	1996	19.2	18.1	27.3
Mozambique	1997	20.1	3.7	23.8
Tanzania	1996	15.3	9.2	24.5
Vietnam	1997	14.9	11.9	26.8

### Participant Handout 3.1: Showing Sensitivity and Empathy Throughout a Patient's Postabortion Care Visit

Steps Included in a PAC visit	How the Staff can Show Empathy and Sensitivity During Each Step
Patient arrives at the hospital and waits to be registered.	
The patient is registered.	
The patient waits to be seen.	
The patient is examined in an examination room.	
The husband or family negotiate payment for the service.	
The patient is admitted to the hospital.	
The patient is given a bed and waits for treatment.	
The patient is prepared for surgery.	
The patient waits for surgery in bed or outside the operating room.	
The patient is prepared for the procedure.	
MVA is performed.	
The patient returns to her assigned bed.	
The patient's family may visit and ask questions of staff.	
The patient's vital signs are checked periodically.	
The patient is prepared for discharge.	
The physician examines the patient to approve discharge.	
The patient is discharged.	

## Participant Handout 4.1: Role Play #1

### Maintaining a Professional Relationship

Setting: *Woman already lying on table. Doctor strolls in, doesn't look at patient or say anything to her. Doctor goes immediately to trolley and checks instruments. Nurse is standing by the trolley, also not talking to or looking at the woman.*

*Doctor says to nurse, still without looking at woman or saying anything to her,*

**Doctor:** "Did she admit to *having an illegal procedure?*"

**Nurse:** "No, but I suspect that she regrets her situation."

*Doctor begins procedure, still without talking to patient.*

**Doctor:** "How many more are out there today? I don't want to spend much time on these women."

**Nurse:** "There are 3 more women here."

*Doctor shakes head and says:*

**Doctor:** "When will these women learn to be responsible for their actions?"

*Doctor stands across the room from the patient:*

**Doctor:** "All right, I'm done with you now. Don't ever let me see you here again."

*Doctor turns away, takes off his gloves, and says to nurse:*

**Doctor:** "Go ahead and bring the next one in."

## Participant Handout 4.2: Observer's Role Play Checklist

**Instructions:** Use the checklist to record your observations of the role play. Observe counseling “process” as well as “content.” Does the provider address the “problem” adequately? Does s/he address the concerns of the “client”? Is the information given correct and complete? What is the client’s behavior? How does the “provider” behave? What nonverbal messages are communicated by the “client” or “provider”?

TASK OR ACTION	YES	NO	YES	NO
<b>PROVIDER'S NON-VERBAL BEHAVIOR</b>				
Friendly and welcoming?				
Smiles and nods at patient?				
Non-judgmental/receptive?				
Listens attentively? Nods head to encourage and acknowledge client's responses?				
Leans towards the patient?				
Makes eye contact in a culturally appropriate manner?				
Has a relaxed and friendly manner?				
Appears rushed or impatient?				
<b>PROVIDER'S VERBAL COMMUNICATION</b>				
Phrases questions clearly and appropriately? Uses non-technical terms?				
Listens closely to patient's responses?				
Responds to the patient's non-verbal communication?				
Answers patient's questions?				
Provides encouragement?				
Uses paraphrasing?				
Uses language the patient can understand?				
Summarizes and ensures a common understanding of the discussion?				
<b>Note: Complete Only the Appropriate Sections for Observed Roleplay</b>				
<i>Information about her physical condition</i>				
Provides reassurance about her physical condition?				
Answers questions about her physical condition?				

## Participant Handout 4.2: Observer's Role Play Checklist (continued)

TASK OR ACTION	YES	NO	YES	NO
<b><i>Information about what is being done to her during procedures and examinations</i></b>				
Explains how the pelvic examination will be done—that the staff will clean the external vagina with a solution that helps prevent infection and that a speculum will be inserted gently into her vagina?				
Encourages relaxation as the speculum is inserted?				
Details of the MVA procedure: - Explains that the woman will have to urinate before the procedure? - Explains where the procedure will take place? - Explains who will be present and who will do the procedure? - Explains what is happening during each step of the procedure?				
Informs patient of possible major and minor complications?				
<b><i>The results of physical examinations and tests</i></b>				
Explains the results of examinations and tests in simple language?				
<b><i>Verbal anesthesia—help in controlling pain</i></b>				
Explains to the woman what she will feel?				
Encourages the woman to relax her abdominal muscles by inhaling deeply and exhaling slowly and demonstrates how this will be done?				
Explains the effect of any pain control medications given?				
Talks calmly and reassuringly to the patient during the MVA procedure, explaining what is happening?				
<b><i>Information on postabortion care, signs of normal recovery, and symptoms of a complication</i></b>				
Warning signs of possible complications: fever, bleeding for more than 2 weeks, foul-smelling discharge from the vagina, menses heavier than normal, strong abdominal pains, chills, fainting (dizziness, weakness), and vomiting or feeling nauseous. If any of these symptoms are present, the patient should return to the hospital or clinic immediately?				
Instructs patient not to put anything in her vagina because it could cause an infection and to use sanitary pads or clean rags?				

**Participant Handout 4.2: Observer’s Role Play Checklist (continued)**

TASK OR ACTION	YES	NO	YES	NO
Instructs patient not to have sex until 3 days after bleeding stops?				
Instructs patient to get plenty of rest and eat iron and protein-rich foods to assist recovery?				
Makes arrangements for patient’s post-procedure follow-up?				
Reassures the patient about the prompt return of fertility— fertility may return even before the woman's next period?				
<b>Information on postabortion contraception</b>				
Informs patient about the availability of safe and effective contraceptive methods?				
Directs patient where to obtain contraceptive methods, ideally given at the time of postabortion care?				
Provides essential family planning information?				

WHAT DID YOU LEARN FROM OBSERVING THIS ROLE PLAY?

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PLEASE RECORD YOUR COMMENTS AND OBSERVATIONS FOR FEEDBACK TO PARTICIPANTS (BOTH POSITIVE AND NEGATIVE):

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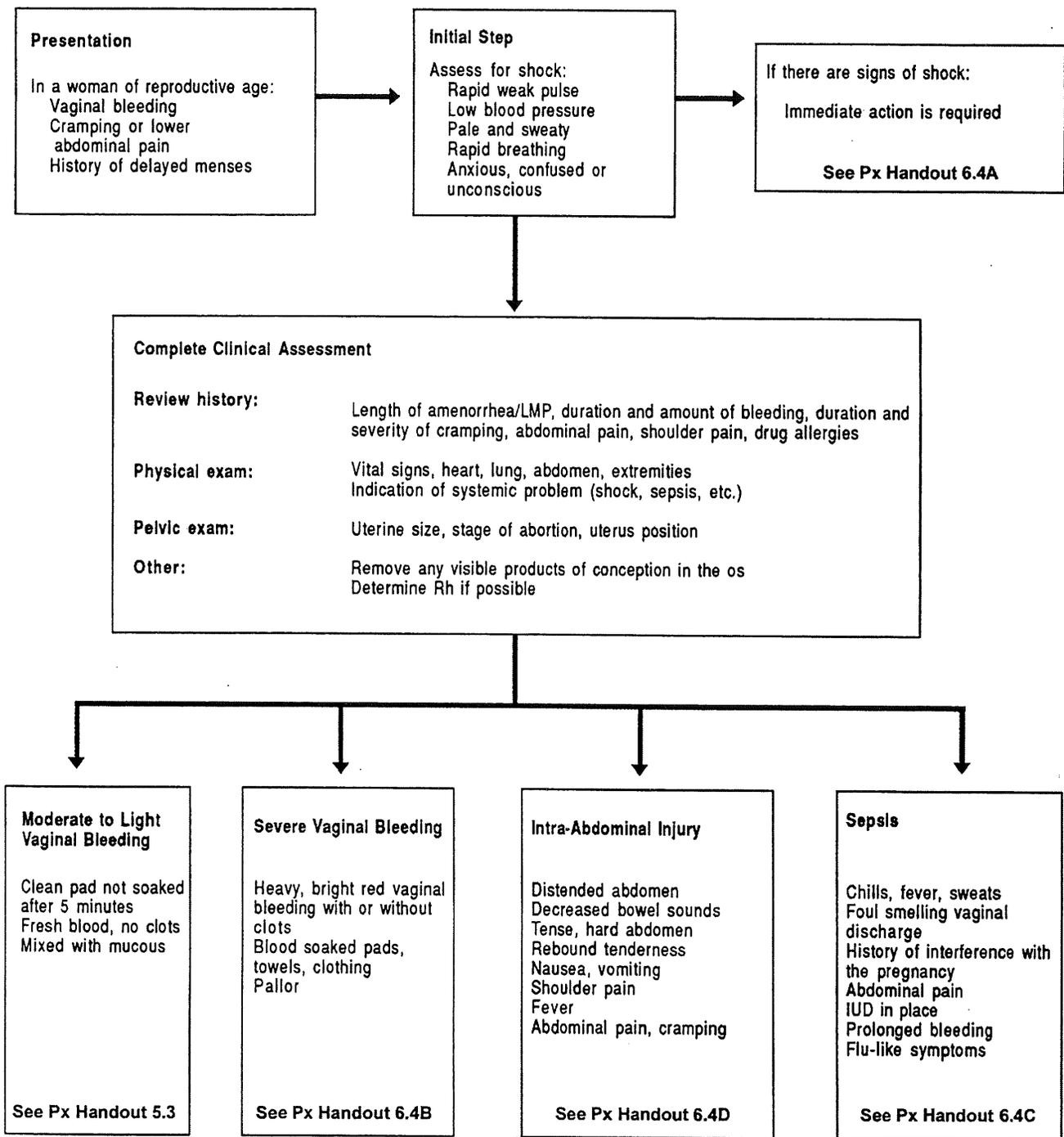


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## Participant Handout 5.1: Initial Assessment

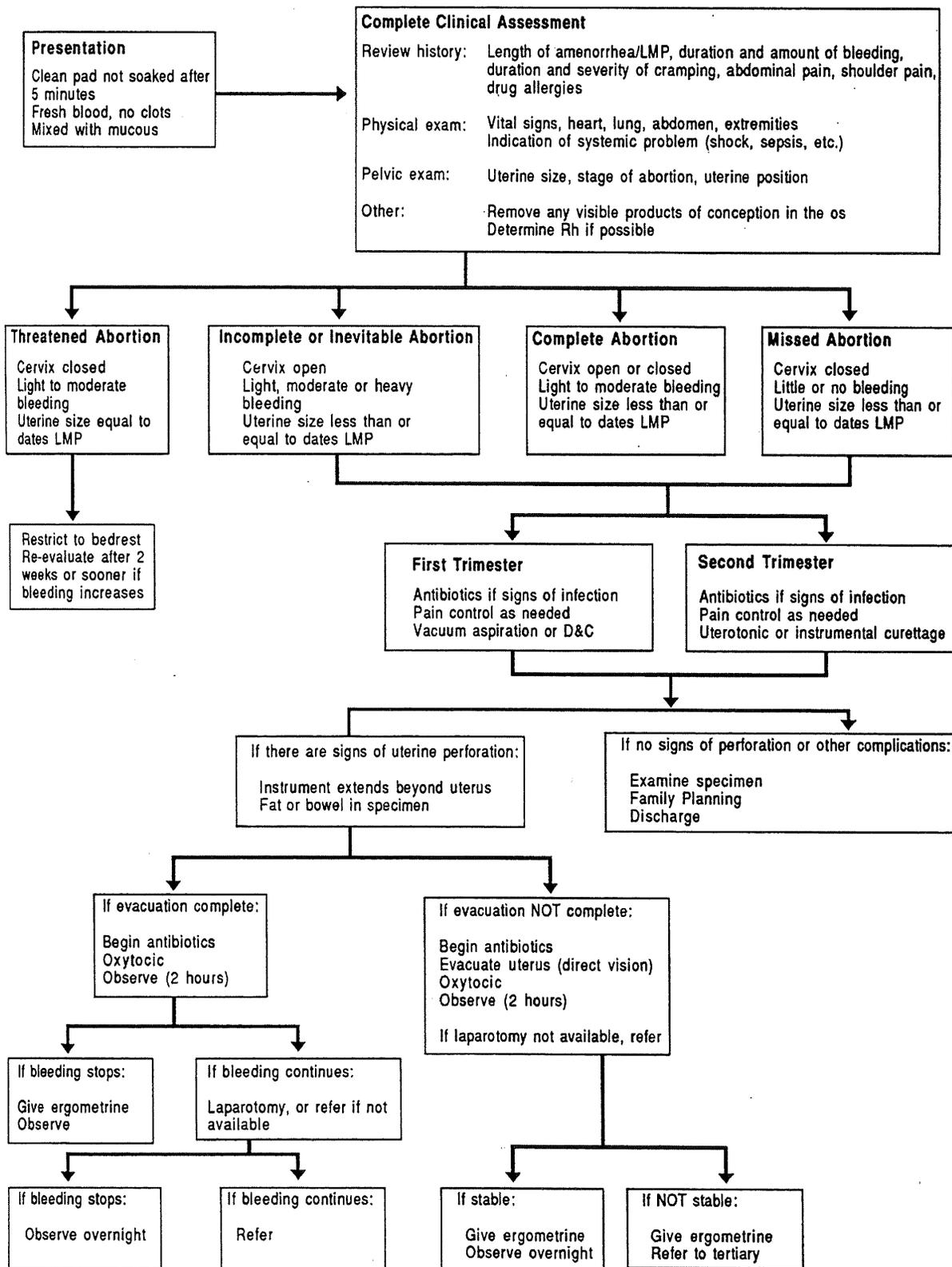


**Source:** WHO, Maternal Health and Safe Motherhood Programme, Division of Family Health. *Clinical management of abortion complications: a practical guide*. 1994. Geneva: WHO.

## Participant Handout 5.2: Types of Abortion

<b>Diagnosis</b>	<b>Bleeding</b>	<b>Cervix</b>	<b>Uterine Size</b>	<b>Other Signs</b>
<b>Threatened Abortion</b>	Slight to moderate	Not dilated	Equal to dates by LMP	Positive Pregnancy test*  Cramping Uterus soft
<b>Inevitable Abortion</b>	Moderate to heavy	Dilated	Less than or equal to dates by LMP	Cramping Uterus tender
<b>Incomplete Abortion</b>	Slight to heavy	Dilated (soft)	Less than or equal to dates by LMP	Cramping  Partial expulsion of POC  Uterus tender
<b>Complete Abortion</b>	Little or none	Soft (dilated or closed)	Less than dates by LMP	Less or no cramping  Expulsion of POC  Uterus firm

## Participant Handout 5.3: Management of Light to Moderate Vaginal Bleeding



Source: WHO, Maternal Health and Safe Motherhood Programme, Division of Family Health. *Clinical management of abortion complications: a practical guide*. 1994. Geneva: WHO.

## **Participant Handout 6.1A: Complications of Incomplete or Septic Abortion—Shock**

Shock is the condition in which circulating blood volume is decreased, and oxygen supply to tissues is interrupted, resulting in damage to the vital organs. It is a highly unstable condition with a high risk of mortality.

In cases of abortion, shock most often results from hemorrhage (blood loss) or dilation of blood vessels from sepsis. Immediate treatment is required to save the patient's life.

When shock is suspected, immediately assess its stage and severity. Early shock is reversible and can usually be treated at the primary care level. Late shock usually requires referral to more intensive care once emergency care has started.

### **Signs of Early Shock**

- Slightly fast pulse (110/minute or greater)
- Mild low blood pressure (systolic less than 90 mm Hg)
- Pallor (especially of inner eyelid, around mouth, or of palms)
- Rapid breathing (respiration 30/minute or greater)
- Awake, aware, and anxious
- Lungs clear
- Hemoglobin of 8 g/100 ml or above, or hematocrit of 26% or above
- Urine output of at least 30 cc/hour

### **Signs of Late Shock**

- Fast and weak pulse
- Very low blood pressure
- Extremely fast and shallow breathing
- Pallor

## Participant Handout 6.1A: Shock (continued)

- Diaphoresis (perspiring, sweating)—skin cold and clammy
- Confused or unconscious
- Hemoglobin (Hb) below 8 g/100 ml or hematocrit (HCT) below 26% (if taken)
- Urine output less than 30 cc/hour (not always able to determine in emergency situation)

### Initial Treatment for Shock

Remember that shock is a life-threatening symptom of other complications. Treat shock first and then treat the source of the shock.

#### *Universal Measures*

- Make sure airway is open.
- Check vital signs.
- Turn the woman's head and body to the side so that if she vomits, she is less likely to aspirate.
- Raise the patient's legs or the foot of the bed.
- If lying down causes severe difficulty breathing, there may be heart failure and pulmonary edema. In this case, lower the legs and raise the head to relieve fluid pressure on the lungs.
- Keep the patient warm.

#### *Oxygen*

- Give oxygen at 6-8 liters/minute (mask or nasal cannula).

#### *Fluids*

- Give IV fluids—Ringer's lactate or isotonic solution at 1 liter/15-20 minutes using a large bore (16-18 gauge) needle. It may take 1-3 liters to stabilize a patient in shock.  
**Do not give fluids by mouth.**

## Participant Handout 6.1A: Shock (continued)

- A hemoglobin of 5 g/100 ml or less, or a hematocrit of 15% or less is life-threatening and a blood transfusion is necessary.
- Monitor amount of fluid/blood given.

### Medications

- If there is any indications that infection may be present, including fever, chills, or pus, give broad spectrum antibiotics by IV or IM ONLY (IV preferred). **Do not give medications by mouth.**

### Labs

While lab work is helpful, treatment of shock should begin without delay even if lab facilities are not available.

- Check hemoglobin or hematocrit.
- Collect blood for CBC (including platelets, if possible), type, and cross-match.
- If facilities are available, assess electrolytes and renal status indicators, such as blood urea or creatinine, and blood pH.
- Collect and measure urine output. If it is not possible to collect the urine, note if the urine is concentrated (dark color) or if the output is decreased (no urination).

### Signs of Stabilization and Improvement

- Increasing blood pressure (systolic of at least 100 mm Hg)
- Stabilizing heart rate (under 90)
- Less confusion or anxiety, or consciousness regained
- Skin color improves
- Respirations decrease
- Urine output increases (at least 100 ml/4 hours)

## Participant Handout 6.1A: Shock (continued)

### Continuing Treatment for Shock

- After 20 to 30 minutes, assess if the patient's condition is stabilizing.

If the patient **is not stabilizing**:

- Continue giving oxygen and IV fluids.
- Monitor patient's condition closely.
- Reassess the need for antibiotics.
- Promptly begin treatment for underlying causes of shock.
- If after 2 hours the patient is not stabilized, refer her immediately.

If the patient **is stabilizing**:

- Gradually shut off oxygen. If patient begins to worsen with the oxygen turned off or down, turn it back on at 6-8 liters/minute.
- Adjust IV fluids to 1 liter/6-8 hours.
- If there are any indications that infection may be present, including fever, chills or pus, give broad spectrum antibiotics by IV or IM ONLY (IV preferred). **Do not give medications by mouth.** If antibiotics have already been started, continue treatment.
- Treat the underlying cause of shock.

**SOURCE:** Maternal Health and Safe Motherhood Programme, Division of Family Health, WHO. 1994. *Clinical management of abortion complications: a practical guide*. Geneva: WHO.

## **Participant Handout 6.1B: Complications of Incomplete or Septic Abortion—Severe Vaginal Bleeding**

Severe vaginal bleeding may be caused by trauma to the vagina, cervix, or uterus as a result of an attempt to terminate a pregnancy. It may also be caused by retained products of conception in a spontaneous or induced abortion.

In the case of severe vaginal bleeding, the patient may also be in shock or at risk of shock if heavy bleeding continues.

### **Signs of Severe Vaginal Bleeding**

- Heavy, bright red vaginal bleeding with or without clots
- Blood-soaked pads, towels, or clothing
- Pallor (especially of inner eyelids, palms, or around the mouth)
- Dizziness, syncope, hypertension

### **Initial Treatment for Severe Vaginal Bleeding**

#### *Universal Measures*

- Make sure airway is open.
- Check vital signs.
- Raise the patient's legs or the foot of the bed.
- Use simple measures as appropriate to control bleeding (oxytocics, tamponing, uterine massage, emptying the uterus, suturing, and bimanual internal and external compression).

#### *Oxygen*

- Give oxygen at 6-8 liters/minute.

#### *Fluids*

- Replace fluid or blood volume.
- Give IV fluids—Ringer's lactate or isotonic solution at rate of 1 liter/15-20 minutes using a large bore (16-18 gauge) needle. It may take 1-3 liters to stabilize a patient who has lost a lot of blood.

## Participant Handout 6.1B: Severe Vaginal Bleeding (continued)

- A hematocrit of 15% or less, or a hemoglobin of 5g/100ml or less is life-threatening and a blood transfusion is required.
- Monitor amount of fluid/blood given.

### Medications

- If there is any indications that infection may be present, including fever, chills or pus, give broad spectrum antibiotics by IV or IM ONLY (IV preferred). **Do not give medications by mouth.**
- Give IV or IM analgesia for pain.
- If there is any possibility that the woman was exposed to tetanus, and there is uncertainty of her vaccination history, then give her tetanus toxoid and tetanus antitoxin.

### Labs

While lab work is helpful, treatment of severe vaginal bleeding should begin without delay even if lab facilities are not available.

- Check hemoglobin and hematocrit to assess the amount of blood loss. A drop in hemoglobin and hematocrit measures can often lag 6 to 8 hours behind the actual blood loss because of the time required for equilibrium. Type and cross-match blood if necessary.
- Collect and measure urine output. If it is not possible to collect the urine, note if the urine is concentrated (dark color) or if the output is decreased (no urination). If output is low at first and then begins to increase, it signals an improvement in the patient's general condition.

### Signs of Stabilization and Improvement

- Increasing blood pressure (systolic of at least 100 mm Hg)
- Stabilizing heart rate (under 90)
- Skin color improves
- Urine output increases (at least 100 ml/4 hours)

## Participant Handout 6.1B: Severe Vaginal Bleeding (continued)

### Continuing Treatment for Severe Vaginal Bleeding

- Continue to monitor vital signs, urine output, and fluids.
- If patient was initially stable, but later shows signs of shock, immediately begin stabilizing treatment with IV fluids and oxygen (see section on “Shock”).

### Oxygen

- Continue oxygen as long as patient is unstable.
- As the patient stabilizes, the oxygen can be gradually turned off. However, if the patient begins to worsen with the oxygen turned down or off, turn the oxygen back on at 6–8 liters/minute.

### Fluids

- Once the woman has stabilized and her low fluid volume has been corrected, adjust the rate of IV fluids to 1 liter/6-8 hours.
- If the patient has a hematocrit of 15% or less, or a hemoglobin of 5 g/100 ml or less, make sure a blood transfusion has been started.

### Medications

- If antibiotics, pain control, and tetanus toxoid and tetanus antitoxin have not been given, reassess the need for treatment. If treatment has been started, continue accordingly.

**SOURCE:** Maternal Health and Safe Motherhood Programme, Division of Family Health, WHO. 1994. *Clinical management of abortion complications: a practical guide*. Geneva: WHO.

## Participant Handout 6.1C: Complications of Incomplete or Septic Abortion—Infection and Sepsis

Infection in abortion patients can be caused by microorganisms introduced into the cervix and uterus, or bacteria growing in retained products of conception.

Infection may be limited to the site (uterus or cervix), or may become generalized sepsis. **Immediate treatment is required.**

### Signs and Symptoms of Infection or Sepsis

- Chills, fever, sweats (flu-like symptoms)
- Foul-smelling vaginal discharge
- Abdominal pain
- Distended abdomen
- Rebound tenderness
- Mildly low blood pressure
- History of interference with the pregnancy (patient may or may not tell you this)
- Prolonged bleeding after an abortion or miscarriage
- Subinvolution of the uterus

Any patient with sepsis must receive immediate antibiotic treatment.

Monitor **all** patients with sepsis carefully for signs of septic shock.

### Assessment of Sepsis

Sepsis can be divided into two categories of risk: low risk of developing severe complications (septic shock) and high risk of developing septic shock. Patients at high risk need **immediate emergency treatment.**

**Low risk:** The patient can be considered low risk if she has **all** of these signs and symptoms:

- Mild to moderate fever (36.5-38.5 °C or 99.5-101.5°F).

## Participant Handout 6.1C: Infection and Sepsis (continued)

- Stable vital signs.
- First trimester pregnancy.
- No evidence of intra-abdominal injury.

**High risk:** The patient is at higher risk if she has **any** of these signs and symptoms:

- High fever (38.5°C or 101.5°F and greater) or subnormal temperature.
- If the pregnancy was in the second trimester (later than 14 weeks).
- Any evidence of intra-abdominal injury—distended abdomen, decreased bowel sounds, rigid abdomen, rebound tenderness, or nausea and vomiting.
- Any evidence of shock (low blood pressure, anxiety, confusion, unconsciousness, pallor, rapid breathing, or rapid, weak pulse).

### Initial Treatment for Sepsis

#### *Universal Measures*

- Make sure airway is open.
- Monitor vital signs.
- Give IV fluids. Do NOT give fluids by mouth.
- If the patient is at high risk for shock, IMMEDIATELY begin IV antibiotics and treat for shock.

#### *Oxygen*

- Oxygen is not necessary if the patient is stable and at low risk for shock.
- If the patient becomes unstable, give oxygen at 6–8 liters/minute.

#### *Fluids*

- Start an IV (1 liter of Ringer's lactate or isotonic solution per 20 minutes) using a large bore (16-18 gauge) needle for every patient at risk for sepsis.
- Monitor amount of fluid/blood given.

## Participant Handout 6.1C: Infection and Sepsis (continued)

### Medications

- Start IV antibiotics immediately, using broad-spectrum antibiotics that are effective against gram-negative, gram-positive, anaerobic organisms, and chlamydia.
- Give IV or IM analgesia for pain.
- Give tetanus toxoid and tetanus antitoxin if the patient has been exposed to tetanus or her vaccination history is uncertain.

### Labs

While lab work is helpful, treatment of sepsis should begin without delay even if lab facilities are not available.

- If the patient has lost a lot of blood, check hemoglobin and hematocrit and collect blood for type and cross-match.
- If possible, perform a CBC to measure infection or the possibility of Disseminated Intravascular Coagulation (DIC). If DIC is present, there will be a low number of platelets.
- Collect and measure urine output. If it is not possible to collect the urine, note if the urine is concentrated (dark color) or if the output is decreased (no urination). If output is low at first and then begins to increase, it signals an improvement in the patient's general condition.
- If possible, take a flat-plate abdominal X-ray to identify air and fluid levels in the bowels and an upright abdominal X-ray to detect air under the diaphragm from uterine or bowel perforation.

### Additional Measures

- Treat underlying cause of infection.
- Check for signs of:
  - Gas gangrene.
  - Tetanus.
  - Intra-Abdominal Injuries (IAIs).
  - Peritonitis.
  - Pelvic abscesses.
- If patient has an IUD in place, it should be removed.

## Participant Handout 6.1C: Infection and Sepsis (continued)

### Signs of Stabilization and Improvement

- Increasing blood pressure (systolic of at least 100 mm Hg)
- Stabilizing heart rate (under 90)
- Skin color improves
- Urine output increases (at least 100 ml/4 hours)

### Continuing Treatment for Sepsis

#### *Universal Measures*

- Continue to monitor vital signs, urine output, and fluids.

#### *Oxygen*

- If the patient was initially unstable and oxygen was given, then continue until the patient stabilizes. Once stabilized, gradually shut off the oxygen. If the patient begins to worsen as the oxygen is turned down or off, then turn the oxygen back on at 6–8 liters/minute.

#### *Fluids*

- For stable patients who are receiving IV fluids only for the purpose of antibiotics, continue with treatment.
- For initially unstable patients who are receiving IV fluids to correct low blood volume and to administer antibiotics, adjust the IV fluid rate to 1 liter/ 6-8 hours once she has stabilized.
- If the patient has a hematocrit of 15% or less, or a hemoglobin of 5 g/100 ml or less, make sure a blood transfusion has been started.

**SOURCE:** Maternal Health and Safe Motherhood Programme, Division of Family Health, WHO. 1994. *Clinical management of abortion complications: a practical guide*. Geneva: WHO.

## Participant Handout 6.1D: Complications of Incomplete or Septic Abortion-Intra—Abdominal Injuries (IAIs)

IAIs seen with incomplete abortion are uterine perforation and possible damage to surrounding organs. With IAI, **risk of infection, sepsis, and tetanus is high.**

Uterine perforation may be discovered upon initial exam, or later during the MVA procedure. Uterine perforation may occur (in rare cases) during the MVA procedure.

### Signs and Symptoms of IAIs

If any signs and symptoms listed below are found in a woman who has missed a period and had an unsafe abortion, the patient may be suffering from an IAI. These symptoms may also indicate a ruptured ectopic pregnancy, ruptured ovarian cyst, or acute appendicitis, each of which is also a surgical emergency.

- Abdominal pain, cramping
- Distended abdomen
- Decreased bowel sounds
- Tense, hard abdomen
- Rebound tenderness
- Nausea/vomiting
- Shoulder pain
- Fever
- Shock
- Sepsis

### Initial Treatment of IAIs

#### *Universal Measures*

- Check vital signs and raise patient's legs.
- Make sure airway is open.
- Do **not** give anything by mouth.

#### *Oxygen*

- Start oxygen at 6-8 liters/minute.

## Participant Handout 6.1D: Intra-Abdominal Injuries (continued)

### *Fluids*

- Give IV fluids—Ringer’s lactate or isotonic solution at rate of 1 liter/15–20 minutes using a large bore (16–18 gauge) needle. It may take 1–3 liters to stabilize a patient who has lost a lot of blood or is in shock.
- Give a blood transfusion if hemoglobin is less than 5 g/100 ml or hematocrit is less than 15%.
- Monitor amount of fluid/blood given.

### *Medications*

- Immediately give broad spectrum antibiotics by IV or IM only (IV preferred).
- Give tetanus toxoid if at risk.
- Give IV or IM analgesia for pain.

### *Labs*

While lab work is helpful, treatment of IAI should begin without delay even if lab facilities are not available.

- Obtain lab tests for hemoglobin or hematocrit, type and cross-match blood.
- Collect and measure urine output. If it is not possible to collect the urine, note if the urine is concentrated (dark color) or if the output is decreased (no urination).
- When IAI is suspected and the facility has X-ray capabilities, an X-ray should be taken to determine the presence of gas in the peritoneal cavity. The X-ray may be performed with the patient upright, or, if necessary, may be taken lying down (lateral view). The presence of gas is a sign of uterine or bowel perforation.

### *Additional Measures*

- For all IAIs, if your facility cannot perform laparotomy or laparoscopy, stabilize the patient and refer.
- However, if the woman is stable after initial treatment, the X-ray is negative, the abdomen not rigid, and there are no signs or symptoms of ectopic pregnancy, the provider may then evacuate the uterus by MVA in order to remove retained POC.

## Participant Handout 6.1D: Intra-Abdominal Injuries (continued)

### Signs of Stabilization and Improvement

- Increasing blood pressure (systolic of at least 100 mm Hg)
- Stabilizing heart rate (under 90)
- Skin color improves
- Urine output increases (at least 100 ml/4 hours)

### Continuing Treatment for IAIs

#### *Universal Measures*

- Continue to monitor vital signs, urine output, and fluids.

#### *Oxygen*

- Continue oxygen until the patient stabilizes. Once the patient has stabilized, gradually shut off the oxygen. If the patient begins to worsen as the oxygen is turned down or off, then turn the oxygen back on at 6–8 liters/minute.

#### *Fluids*

- Once the patient has stabilized, adjust the IV fluid rate to 1 liter/6–8 hours once she has stabilized.
- If the patient has a hematocrit of 15% or less, or a hemoglobin of 5 g/100 ml or less, make sure a blood transfusion has been started.

**SOURCE:** Maternal Health and Safe Motherhood Programme, Division of Family Health, WHO. 1994. *Clinical management of abortion complications: a practical guide*. Geneva: WHO.

## Participant Handout 6.2: Antibiotic Therapy for Infected Abortion

Antibiotic Therapy for Infected Abortion		
Antibiotic	Dosage	Comments
Ampicillin	1 g IV every 4 hours or 500 mg oral every 6 hours	Good broad spectrum antibiotic, inexpensive.
Benzylpenicillin	10 million units IV every 4 hours	Few serious side effects; effect limited to Gram (+) cocci and gonorrhea (if not resistant).
Chloramphenicol	1 g IV every 6 hours	Good aerobic and anaerobic coverage; effective against chlamydia. Serious side effects are associated with it: -Anemia and leucopenia (dose related). -Aplastic anemia (not dose related, rare). Must be able to monitor blood count to watch for anemia.
Gentamicin	1.5 mg/Kg/dose IV or IM every 8 hours	Effective against Gram (-) organisms such as GI tract flora (e.g. E. coli).
Doxycycline	100 mg IV every 12 hours	Adequate for both Gram (+) and Gram (-) organism most especially chlamydia; can replace or be used along with ampicillin; good in combination with metronidazole.
Metronidazole	1g IV every 12 hours or 500 mg oral every 6 hours	Good Gram (-) and anaerobic coverage; can be used in combination with ampicillin, doxycycline, inexpensive, generally available; oral administration achieves serum levels equivalent to IV administration.

### Notes:

1. Penicillin (or ampicillin), gentamicin, and metronidazole are most commonly used together as the broadest spectrum treatment of patients with severe infectious sepsis of a pelvic origin.
2. Chloramphenicol is quite often available when other drugs are not. It is effective in combination with penicillin or ampicillin.
3. Once started, intravenous therapy should be continued until the patient is afebrile at least 24 hours, preferable 48 hours. If there is no response in 48 hours, regimen should be changed.
4. When recovery is underway, intravenous therapy should be followed by oral medication. Generally 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 on tetracycline may develop a rash when their skin is exposed to the sun.

**Source:** WHO, Maternal Health and Safe Motherhood Programme, Division of Family Health. *Clinical management of abortion complications: a practical guide*. 1994. Geneva: WHO.

## Participant Handout 6.2: Antibiotic Therapy (continued)

Inpatient Antibiotic Combination Regimens (in order of preference)				
Penicillin or Ampicillin	with	Gentamicin	with	Metronidazole
Doxycycline	with	Metronidazole		
Penicillin	with	Chloramphenicol		

Outpatient Antibiotic Therapy		
Antibiotic	Oral Dose	Comments
Ampicillin or Procaine Penicillin	3.5 g oral plus 1g Probenecid  4.8 million units IM plus 1g oral Probenecid	Coverage for gonorrhea & general broad spectrum coverage  Coverage for gonorrhea and gram (+) cocci
	<b>PLUS one of these:</b>	
Doxycycline or Tetracycline or Co-trimoxazole	100 mg oral twice daily for 10-14 days  500 mg oral 4 times daily for 10-14 days  2 tablets oral twice daily for 10 days	Good chlamydia coverage  Good chlamydia coverage  Good broad spectrum coverage available, inexpensive

**Source:** WHO, Maternal Health and Safe Motherhood Programme, Division of Family Health. *Clinical management of abortion complications: a practical guide*. 1994. Geneva: WHO.

## Participant Handout 6.3A: Signs and Symptoms

**Instructions: Match each of the complications of incomplete or septic abortion listed below with its corresponding symptoms.**

- ◆ Shock
- ◆ Severe Vaginal Bleeding
- ◆ Infection and sepsis
- ◆ Intra-abdominal injuries

**Signs and symptoms of \_\_\_\_\_**

- Fast, weak pulse (110/minute or greater)
- Low blood pressure (systolic less than 90 mm Hg)
- Pallor (especially of inner eyelid, around mouth, or of palms)
- Diaphoresis (perspiring, sweating)—skin cold and clammy
- Rapid breathing (respiration 30/minute or greater)
- Anxiety, confusion or unconsciousness
- Hgb or HCT (if taken) will be low

**Signs and symptoms of \_\_\_\_\_**

- Heavy, bright red vaginal bleeding with or without clots
- Blood-soaked pads, towels, or clothing
- Pallor (especially of inner eyelids, palms, or around the mouth)

**Signs and symptoms of \_\_\_\_\_**

- Chills, fever, sweats (flu-like symptoms)
- Foul-smelling vaginal discharge
- Abdominal pain
- Distended abdomen
- Rebound tenderness
- Mildly low blood pressure
- History of interference with the pregnancy (patient may or may not tell you this)
- Prolonged bleeding after an abortion or miscarriage
- Subinvolution of the uterus

## Participant Handout 6.3A: Signs and Symptoms (continued)

### Signs and Symptoms of \_\_\_\_\_

- Abdominal pain, cramping
- Distended abdomen
- Decreased bowel sounds
- Abdomen tense, hard
- Rebound tenderness
- Nausea/vomiting
- Shoulder pain
- Fever
- Shock
- Sepsis

## Participant Handout 6.3B: Initial Treatment Steps

**Instructions: Match each of the complications of incomplete or septic abortion listed below with its corresponding treatment.**

- ◆ Shock
- ◆ Severe Vaginal Bleeding
- ◆ Infection and sepsis
- ◆ Intra-abdominal injuries

**Initial Treatment for \_\_\_\_\_**

- Make sure airway is open.
- Give oxygen at 6-8 liters/minute (mask or nasal cannula).
- Give IV fluids (Ringer's lactate or isotonic solution at 1 liter in 15-20 minutes using large bore (16-18 gauge) needle. Do not give fluids by mouth.
- Raise the patient's legs or foot of the bed.
- Keep the patient warm.
- A hemoglobin of 5g/100ml or less, or a hematocrit of 15% or less is life threatening and a blood transfusion is necessary.

### After initial treatment

- Careful monitoring for signs of improvement is essential.
- If necessary, additional treatment measures may include IV antibiotics (if sepsis) or blood transfusion to treat the cause of shock

**Initial Treatment for \_\_\_\_\_**

- Check vital signs.
- Raise the patient's legs or foot of the bed.
- Control bleeding.
- Make sure airway is open.
- Give oxygen at 6-8 liters/minute.
- Replace fluid or blood volume.
- Give IV fluids (Ringer's lactate or isotonic solution at rate of 1 liter in 15-20 min.). It may take 1-3 liters to stabilize a patient who has lost a lot of blood.
- If hematocrit is less than/equal to 15%, or hemoglobin of 5g/100 ml, a blood transfusion is required.
- Monitor amount of fluid/blood given and urine output.

## Participant Handout 6.3B: Initial Treatment Steps (continued)

Initial Treatment for \_\_\_\_\_

### If risk of shock is low:

- Make sure airway is open.
- Monitor vital signs.
- Give IV fluids. Do NOT give fluids by mouth.
- Give IV antibiotics using broad-spectrum antibiotics that are effective against gram-negative, gram-positive, anaerobic organisms, and chlamydia.
- Give tetanus toxoid, if the patient has been exposed to tetanus or her vaccination history is uncertain.

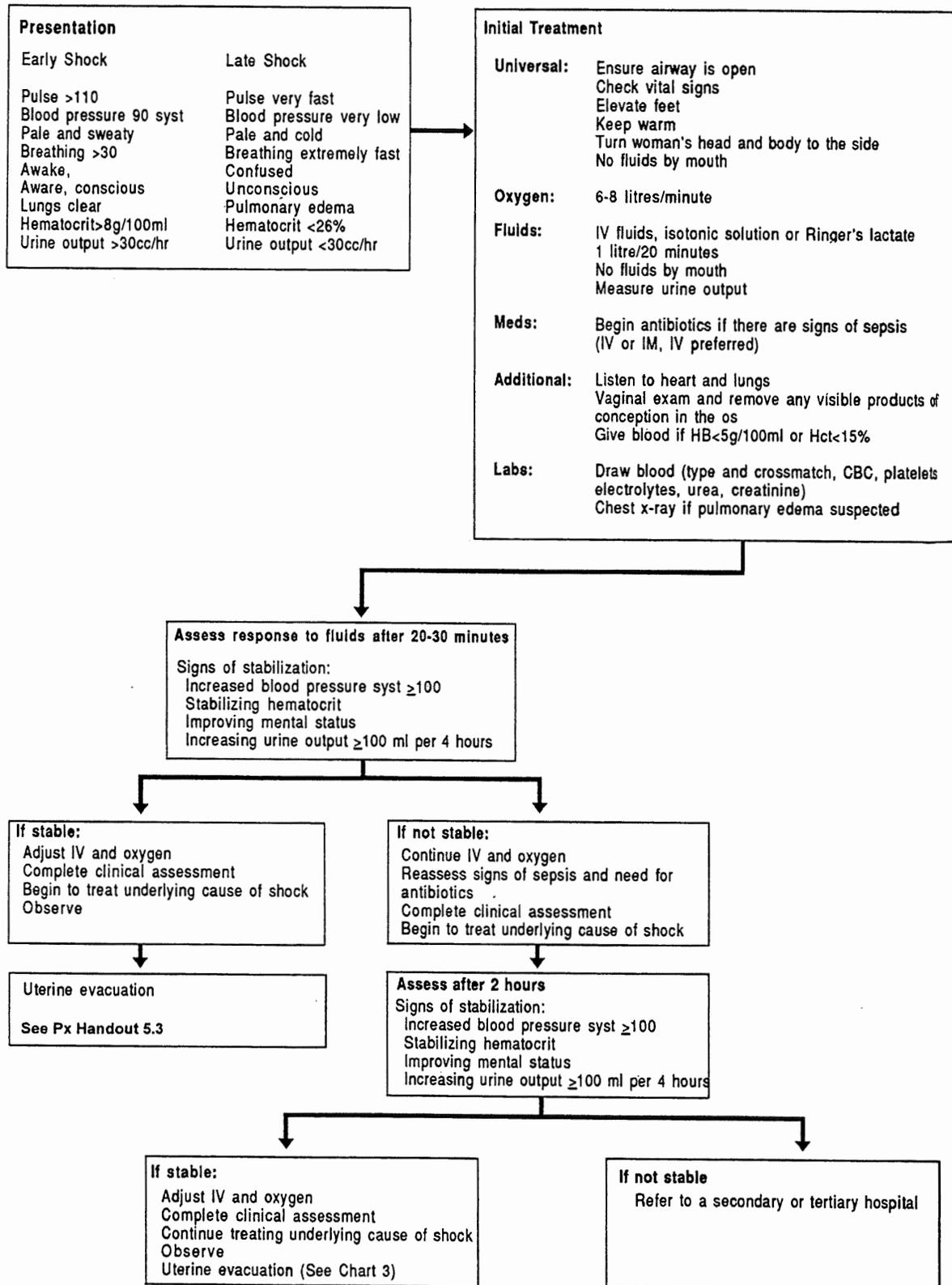
### If risk of shock is high:

- Follow steps for low-risk patients, plus give oxygen.
- Give IV with large bore needle when possible.
- Run IV at 1 liter per 20 minutes (no fluid by mouth).
- Measure urine output.

Initial Treatment for \_\_\_\_\_

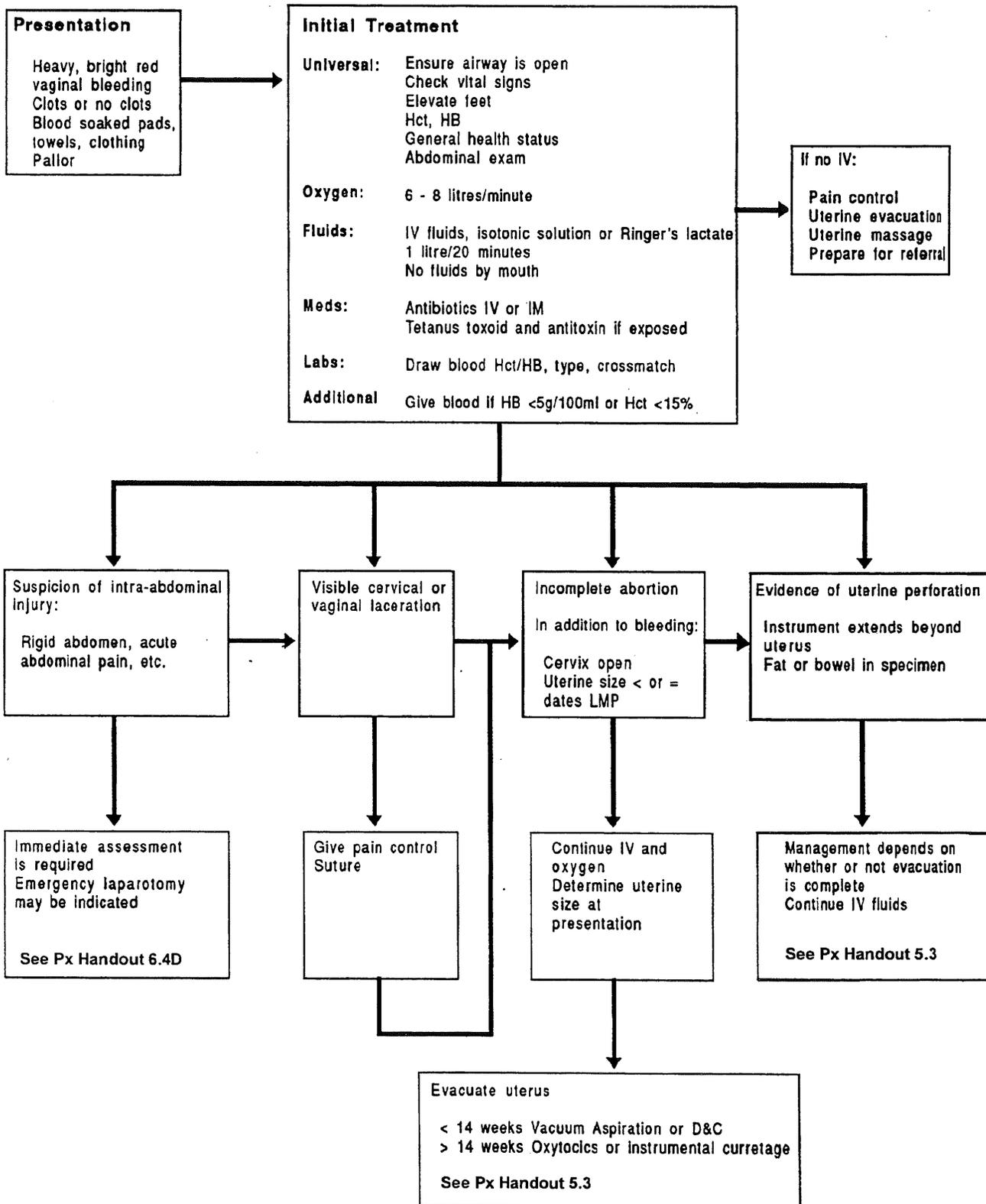
- Check vital signs and raise patient's legs.
- Make sure airway is open.
- Do not give anything by mouth.
- Give IV fluids (Ringer's lactate or isotonic saline solution at a rate of 1 liter /15–20 min.).
- Give a blood transfusion if Hb less than 5g/100ml.
- If signs of infection, give antibiotics.
- Give tetanus toxoid if at risk.
- Give IV or IM analgesia for pain.
- Obtain lab tests for hemoglobin or hematocrit, type and cross-match blood, measure urine output.
- Obtain upright abdominal X-ray.

## Participant Handout 6.4A: Shock



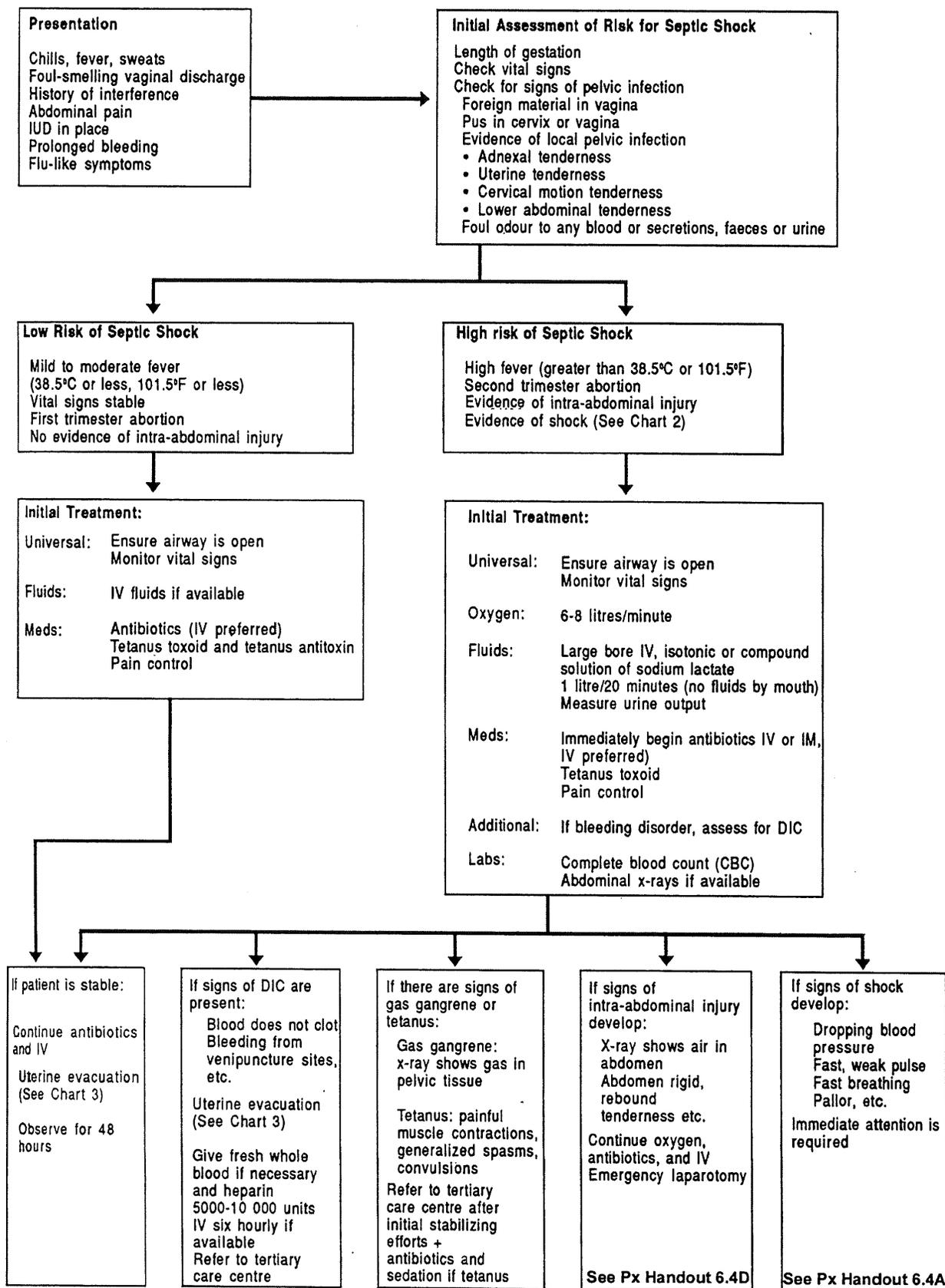
**Source:** WHO, Maternal Health and Safe Motherhood Programme, Division of Family Health. *Clinical management of abortion complications: a practical guide*. 1994. Geneva: WHO.

## Participant Handout 6.4B: Severe Vaginal Bleeding

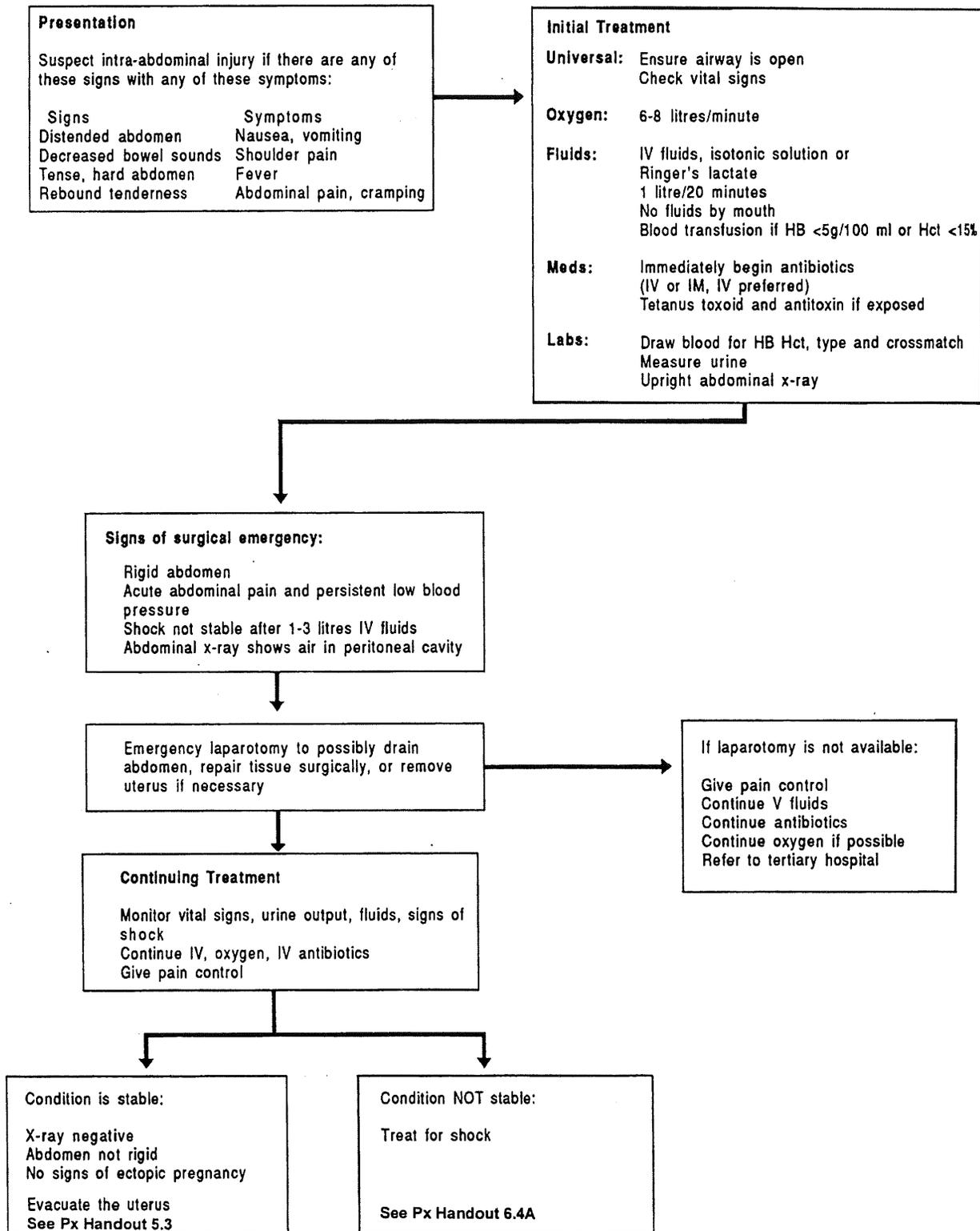


**Source:** WHO, Maternal Health and Safe Motherhood Programme, Division of Family Health. *Clinical management of abortion complications: a practical guide*. 1994. Geneva: WHO.

## Participant Handout 6.4C: Sepsis



## Participant Handout 6.4D: Intra-Abdominal Injury



Source (this page and previous page): WHO, Maternal Health and Safe Motherhood Programme, Division of Family Health. *Clinical management of abortion complications: a practical guide*. 1994. Geneva: WHO.

## Participant Handout 6.5: Signs, Symptoms, and Treatment of Complications

Complication	Signs and Symptoms	Initial Treatment
<p><b>Shock</b></p>	<ul style="list-style-type: none"> <li>• Fast, weak pulse (110/minute or greater)</li> <li>• Low blood pressure (systolic less than 90 mm Hg)</li> <li>• Pallor (especially of inner eyelid, around mouth, or of palms)</li> <li>• Diaphoresis (perspiring, sweating)—skin cold and clammy</li> <li>• Rapid breathing (respiration 30/minute or greater)</li> <li>• Anxiety, confusion, or unconsciousness</li> <li>• Hgb or HCT (if taken) will be low</li> </ul>	<ul style="list-style-type: none"> <li>• Make sure airway is open.</li> <li>• Give oxygen at 6-8 liters/minute (mask or nasal cannula).</li> <li>• Give IV fluids (Ringer's lactate or isotonic solution at 1 liter in 15-20 minutes using large bore, 16-18 gauge needle. <b>Do not give fluids by mouth.</b></li> <li>• Raise the patient's legs or foot of the bed.</li> <li>• Keep patient warm.</li> <li>• A hemoglobin of 5g/100 ml or less, or a hematocrit of 15% or less is life threatening and a blood transfusion is necessary.</li> </ul> <p><b>After Initial Treatment</b></p> <ul style="list-style-type: none"> <li>• Careful monitoring for signs of improvement is essential.</li> <li>• If necessary, additional treatment measures may include IV antibiotics (if sepsis) or blood transfusion to treat the cause of shock.</li> </ul>
<p><b>Severe Vaginal Bleeding</b></p>	<ul style="list-style-type: none"> <li>• Heavy, bright red vaginal bleeding with or without clots</li> <li>• Blood-soaked pads, towels, or clothing</li> <li>• Pallor (especially of inner eyelids, palms, or around the mouth)</li> </ul>	<ul style="list-style-type: none"> <li>• Check vital signs.</li> <li>• Raise the patient's legs or foot of the bed.</li> <li>• Control bleeding.</li> <li>• Make sure airway is open.</li> <li>• Give oxygen at 6-8 liters/minute.</li> <li>• Replace fluid or blood volume.                             <ul style="list-style-type: none"> <li>- IV fluids (Ringer's lactate or isotonic solution at rate of 1 liter/15-20 min.). It may take 1-3 liters to stabilize a patient who has lost a lot of blood.</li> <li>- If hematocrit is less than/equal to 15%, or hemoglobin of 5g/100 ml, a blood transfusion is required.</li> </ul> </li> <li>• Monitor amount of fluid/blood given and urine output.</li> </ul>

## Participant Handout 6.5: Signs, Symptoms, and Treatment of Complications (continued)

Complications	Signs and Symptoms	Initial Treatment
<b>Sepsis</b>	<ul style="list-style-type: none"> <li>• Chills, fever, sweats (flu-like symptoms)</li> <li>• Foul-smelling vaginal discharge</li> <li>• Abdominal pain</li> <li>• Distended abdomen</li> <li>• Rebound tenderness</li> <li>• Mildly low blood pressure</li> <li>• History of interference with the pregnancy (patient may or may not tell you this)</li> <li>• Prolonged bleeding after an abortion or miscarriage</li> <li>• Subinvolution of the uterus</li> </ul>	<p><b>If risk of shock is low:</b></p> <ul style="list-style-type: none"> <li>• Make sure airway is open.</li> <li>• Monitor vital signs.</li> <li>• Give IV fluids. Do <b>not</b> give fluids by mouth.</li> <li>• Give IV antibiotics using broad-spectrum antibiotics that are effective against gram-negative, gram-positive, anaerobic organisms, and chlamydia.</li> <li>• Give tetanus toxoid if the patient has been exposed to tetanus or her vaccination history is uncertain.</li> </ul> <p><b>If risk of shock is high:</b></p> <ul style="list-style-type: none"> <li>• Follow steps for a low-risk patient, plus give oxygen.</li> <li>• Give IV with large bore needle when possible.</li> <li>• Run IV at 1 liter per 20 minutes (no fluid by mouth).</li> <li>• Measure urine output.</li> </ul>
<b>Intra-Abdominal Injury</b>	<ul style="list-style-type: none"> <li>• Abdominal pain, cramping</li> <li>• Distended abdomen</li> <li>• Decreased bowel sounds</li> <li>• Tense, hard abdomen</li> <li>• Rebound tenderness</li> <li>• Nausea/vomiting</li> <li>• Shoulder pain</li> <li>• Fever</li> <li>• Shock</li> <li>• Sepsis</li> </ul>	<ul style="list-style-type: none"> <li>• Check vital signs and raise patient's legs.</li> <li>• Make sure airway is open.</li> <li>• Do <b>not</b> give anything by mouth.</li> <li>• Give IV fluids (Ringer's lactate or isotonic saline solution at a rate of 1 liter/15-20 min.).</li> <li>• Give a blood transfusion if Hb is less than 5g/100ml.</li> <li>• If signs of infection, give antibiotics.</li> <li>• Give tetanus toxoid if at risk.</li> <li>• Give IV or IM analgesia for pain.</li> <li>• Obtain lab tests for hemoglobin or hematocrit, type and cross-match blood, and measure urine output.</li> <li>• Obtain upright abdominal X-ray.</li> </ul>



## Participant Handout 6.6B: Case Studies

**Case #2:** A patient arrives at the hospital having aborted at home after 4 months of pregnancy. She reports having lost a lot of blood. When she arrives at the hospital, she is very anemic and febrile.

The pelvic examination reveals a 12 week sized uterus and a few pieces of placental remains which are removed by MVA. She is advised to have a blood transfusion and is given antibiotics (ampicillin IM). An IV line is started, but no blood is available for the transfusion. One hour after the MVA procedure, she complains of a headache and becomes agitated. One half hour later, in spite of being given adrenaline and cardiac massage, the patient dies.

1. Was the case managed adequately? Give your rationale.
2. What additional steps could the practitioner have taken to manage the case?
3. What was the most likely cause of the death?



## Participant Handout 6.6D: Case Studies

**Case #4:** A woman presents at the hospital at 4 PM with vaginal bleeding and a low fever. (LMP 10 weeks, uterus 6 weeks size.) The hospital is very crowded that day and she is unable to be treated until the next morning. By then her fever is 104°F (39°C), and her abdomen quite tender with pain limited to the lower abdomen. The attending physician decides that because the patient is septic, she should be treated in the OR with a D&C. Finally at 11:30 AM, the operating theatre and an anesthesiologist are available and a D&C is performed. After the D&C, the patient is admitted and remains in the hospital for three days until her fever is normal again.

1. Could MVA have been used to manage this patient? Are any steps other than uterine evacuation required to manage the patient?
2. What advantages would MVA have afforded the patient?
3. What disadvantages would have been experienced in using MVA on the patient?

## Participant Handout 9.1: Antiseptic Effectiveness

Group	Activity Against Bacteria						Recommended Use				
	Gram Positive	Most Gram Negative	TB	Viruses	Fungi	Endospores	Relative Speed of Action	Affected by Organic Matter	Surgical Scrub	Skin Preparation	Comments
Alcohols (60-90% ethyl or isopropyl)	Very good	Very good	Good	Good	Good	None	Fast	Data varies	Yes	Yes	Not for use on mucous membranes
Chlorhexidine <sup>1</sup> (4%) (Hibitane, Hibiscrub)	Very good	Good	Poor	Fair	Fair	None	Slow	Slight	Yes	Yes	Has good persistent effect
Hexachlorophene (3%) (pHisoHex)	Good	Poor	None	Fair	Poor	None	Slow	Slight	Yes	No	Rebound growth of bacteria may occur
Iodine preparations (3%). Iodine and alcohol (tincture of iodine)	Very good	Very good	Good	Good	Good	Poor	Intermediate	Slight	No	Yes	Not for use on mucous membranes
Iodophors (1:2,500) (Betadine)	Very good	Good	Good	Good	Good	None	Slow	Yes	Yes	Yes	Can be used on mucous membranes

<sup>1</sup> **Note:** Savlon, which contains chlorhexidine, is not listed because the concentration of chlorhexidine varies from country to country from as little as 1% to as much as 4%.

Adapted from: Tietjen, L., W. Cronin, N. McIntosh. 1992. *Infection prevention for family planning service programs*. Baltimore, MD: JHPIEGO.

## Participant Handout 10.1A: Recommended Dilutions of Chlorine-Releasing Compounds

Dilution is necessary when using a pre-made bleach solution, because bleach sold by commercial brands is more concentrated than 0.5%. The following chart shows how to obtain a 0.1% and a 0.5% solution from pre-made solutions.

	Dirty condition (e.g., blood spills, soiled equipment), or dilution made with contaminated water	Clean condition (e.g., cleaned medical equipment)
<b>Available chlorine required</b>	<b>0.5% (5 g/liter, 5000 ppm)</b>	<b>0.1% (1 g/liter, 1000 ppm)</b>
Sodium hypochlorite solution	see table on next page	20 ml/liter, if starting with 5% available chlorine
Calcium hypochlorite (70% available chlorine)	7.0 g/liter	1.4 g/liter
NaDCC (60% available chlorine)	8.5 g/liter	1.7 g/liter
NaDCC-based tablets (1.5 g of available chlorine per tablet)	4 tablets/liter	1 tablet/liter
Chloramine (25% available chlorine)	20 g/liter*	20 g/liter*

\*Chloramine releases chlorine at a slower rate than do hypochlorites. Therefore, a higher available chlorine concentration is required of chloramine solutions for the same effectiveness. On the other hand, chloramine solutions are not inactivated by biological materials (e.g., protein and blood) to the same extent as hypochlorites. Therefore, a concentration of 20 g/litre (0.5% available chlorine) is recommended for both clean and dirty conditions.

**Source:** WHO. 1989. *Guidelines on sterilization and disinfection methods effective against human immunodeficiency virus (HIV)*. 2nd. ed. Geneva: WHO

## Participant Handout 10.1B: Recommended Dilutions of Sodium Hypochlorite (Bleach)

Dilution is necessary when using a pre-made bleach solution because bleach sold by commercial brands is more concentrated than 0.5%. The following chart shows how to obtain a 0.1% and a 0.5% solution from pre-made solutions.

Brand of Bleach (Country)	Percent Available Chlorine	Dilution Necessary to Achieve 0.5% Concentration (for decontamination, blood spills, soiled equipment)	Dilution Necessary to Achieve 0.1% Concentration (for high level disinfection of cannulae)
JIK (Africa), Robin bleach (Nepal), Ajax (Jamaica)	3.5%	1 part bleach to 6 parts water, or 160 ml bleach to 1 liter water	1 part bleach to 34 parts water, or 30 ml bleach to 1 liter water
Household bleach, Clorox (USA, Canada), ACE (Turkey), Jif, Red & White (Haiti), Odex, (Jordan), Eau de Javel (France, Viet Nam) (15° chlorum**), Clorox (Peru)	5%	1 part bleach to 9 parts water, or 110 ml bleach to 1 liter water	1 part bleach to 49 parts water, or 20 ml bleach to 1 liter water
Blanqueador, cloro (Mexico), Hypex (Jordan)	6%	1 part bleach to 11 parts water, or 90 ml bleach to 1 liter water	1 part bleach to 59 parts water, or 17 ml bleach to 1 liter water
Lavandina (Bolivia)	8%	1 part bleach to 15 parts water, or 70 ml bleach to 1 liter water	1 part bleach to 79 parts water, or 13 ml bleach to 1 liter water
Chloros (UK), Liguria (Peru)	10%	1 part bleach to 19 parts water, or 50 ml bleach to 1 liter water	1 part bleach to 99 parts water, or 10 ml bleach to 1 liter water
Extrait de Javel (France) (48° chlorum**), Chloros (UK)	15%	1 part bleach to 29 parts water, or 30 ml bleach to 1 liter water	1 part bleach to 149 parts water, or 7 ml bleach to 1 liter water

\*\*In some countries, the concentration of sodium hypochlorite is expressed in chlorometric degrees (° chlorum); 1° chlorum is approximately equivalent to 0.3% available chlorine.

Source: Tietjen, L., W. Cronin, and N. McIntosh. 1992. *Infection prevention for family planning service programs*. Baltimore, MD: JHPIEGO.

## Participant Handout 10.1C: Formulas for Preparing Dilute Chlorine Solution

### Using Liquid Bleach

Chlorine in liquid bleach comes in different concentrations. You can use any concentration to make a 0.5% dilute chlorine solution using the following formula:

$\frac{\% \text{ chlorine in liquid bleach}}{\% \text{ chlorine desired}} - 1 = \text{Total parts of water for each part bleach}$

% chlorine desired

Example: To make a 0.5% chlorine solution from 3.5% bleach.

$\frac{3.5\% \text{ chlorine bleach}}{0.5\% \text{ chlorine desired}} - 1 = [7] - 1 = 6 \text{ parts bleach to 1 part water}$

0.5% chlorine desired

Therefore: Add 1 part bleach to 6 parts water to make a 0.5% chlorine solution.

### Using Bleach Powder (such as calcium hypochlorite 35%)

Using bleach powder, calculate the ratio of bleach to water by using the following formula:

$\frac{\% \text{ chlorine desired}}{\% \text{ chlorine in bleach powder}} \times 1,000 = \text{Number of grams of powder for each liter of water}$

% chlorine in bleach powder

Example: To make a 0.5% chlorine solution from calcium hypochlorite powder containing 35% active chlorine.

$\frac{0.5\% \text{ chlorine desired}}{35\% \text{ chlorine in bleach powder}} \times 1,000 = 0.0143 \times 1,000 = 14.3$

35% chlorine in bleach powder

**Note:** When using bleach powder the solution often looks cloudy and the smell is not as strong as it is when liquid bleach is used.

## Participant Handout 10.2: HLD and Sterilization of Instruments

High-Level Disinfection of Instruments							
Equipment	Disinfecting Agent	Advantages	Disadvantages	Solution Strength	Minimum Time Required for Disinfection	Steps	Precautions
Cannulae	Boiling water	Easily available; will provide HLD up to 5,500 meters (18,000ft.)		N/A	20 minutes at rolling boil	Fill large (at least 25 cm/10" diameter) pot 3/4 full with clean water; deposit instruments; cover pot; bring to boil again; boil for 20 minutes; remove items gently with HLD forceps; air dry on a HLD tray or in a HLD container.	Grasp cannulae gently when removing from water. Grasping hot cannulae with forceps may flatten the cannulae. Do not leave cannulae in previously boiling water.
Metal Instruments and Cannulae	Glutaraldehyde (2-4%)	Not easily inactivated by organic materials	Skin, eye, respiratory irritant	Use full strength—never dilute; follow manufacturers' instructions for mixing.	20 minutes at a rolling boil	Submerge items completely, making sure solution fills cannula interior; soak; remove with HLD forceps; rinse with boiling water, air dry on a HLD tray or in a HLD container.	Discard solution (7 to 28 days) after mixing or sooner if cloudy (follow manufacturers instructions).
Instruments, Cannulae & Syringe	Chlorine (0.1%)	Fast-acting, very effective against HBV and HIV	Corrosive to metal	Dilute to 0.1% for clean equipment using boiled water; 0.5% if tap water used.	20 minutes at a rolling boil	Submerge items completely in a non-metal container, making sure solution fills cannula interior; soak; remove with HLD forceps; rinse with boiled water; air dry on a HLD tray or in a HLD container.	Change solution daily or sooner if cloudy.
	Hydrogen Peroxide (6%)	Not easily inactivated by organic materials	Corrosive to copper, zinc, aluminum, and brass; inactivated by prolonged exposure to heat (over 30°C) or light	Mix 1 part 30% hydrogen peroxide with 4 parts boiling water to make 6% solution.	30 minutes at a rolling boil	Submerge items completely in a non-metal container, making sure solution fills cannula interior; soak; remove with HLD forceps; rinse with boiled water; air dry on a HLD tray or in a HLD container.	Store hydrogen peroxide in opaque container away from light and heat. Change solution daily or sooner if cloudy.

## Participant Handout 10.2: HLD and Sterilization of Instruments (continued)

High-Level Disinfection of Instruments							
Equipment	Disinfecting Agent	Advantages	Disadvantages	Solution Strength	Minimum Time Required for Disinfection	Steps	Precautions
Metal, Plastic, or Rubber	Formaldehyde (8%)	Not easily inactivated by organic materials	Vapors toxic; skin, eye, respiratory irritant	Dilute 1 part commercial formaldehyde (35-40%) with 4 parts boiled water to make 8% solution.	20 minutes at a rolling boil	Submerge items completely, making sure solution fills cannula interior, soak; remove with HLD forceps; rinse with boiling water, air dry on a HLD tray or in a HLD container.	Use only in well-ventilated area. Do not dilute with chlorinated water—this produces toxic gas. Discard solution after 14 days or sooner if cloudy.
Sterilization of Instruments							
Equipment	Disinfecting Agent	Advantages	Disadvantages	Solution Strength	Minimum Time Required for Disinfection	Steps	Precautions
Instruments, Cannulae & Syringe	Glutaraldehyde 2-4% (Cidex)	Not easily inactivated by organic materials	Sterilization slower below 25°C (77°F); skin, eye, respiratory irritant	Full strength never dilute; follow manufacturer's instructions for mixing	10 hours	Submerge instruments completely, make sure solution fills cannulae interior; soak; remove with sterile forceps; rinse with sterile water; air dry.	Use only in well-ventilated areas; discard according to manufacturers instructions or sooner if solution is cloudy.
	Formaldehyde (8%)	Not easily inactivated by organic materials	Vapors toxic; skin, eye, respiratory irritant	Dilute 1 part commercial formaldehyde (35-40%) with 4 parts bottled water to make 8% solution.	24 hours	Submerge instruments completely, make sure solution fills cannulae interior; soak; remove with sterile forceps; rinse with sterile water; air dry.	Use only in well-ventilated areas; do not dilute with chlorinated water—this produces toxic gas; discard 14 days after mixing or sooner if solution is cloudy.

## Participant Handout 13.1: Matching Exercise

**Instructions: Match the Complication Signs with the appropriate Cause.**

### Complication Signs and Symptoms

1. Incomplete Evacuation: Post procedure bleeding, infection, pain, and cramping.
2. Empty Uterus: There are no POC in the uterus, nothing comes out in the syringe.
3. Acute Hematometra: Uterine distension due to continued intrauterine bleeding, uterine tenderness, fainting (vagal symptoms), and cramping within a few hours post procedure.
4. Hemorrhage: Development of severe bleeding and shock.
5. Depressed respirations, hives, itching, airway constriction, disorientation, or convulsions.
6. Uterine or Cervical Perforation: The cannula penetrates further than expected, fat bowel or omentum is seen in the syringe or with aspirated tissue, the vacuum decreases or is lost and the cannula has not been partially withdrawn, hemorrhage.
7. Pelvic Infection: Development of fever, chills, foul discharge, post procedure.
8. Neurogenic Shock (Vagal Reaction): Fainting, slow pulse, slow respirations, and hypotension.

### Possible Causes

- A. Blood flow from the uterus is blocked.
- B. Cannula is too small or is withdrawn before complete evacuation of all POC.
- C. Complete passage of POC before the procedure, patient was not pregnant, or ectopic pregnancy.
- D. Overly forceful dilation of the cervix, inadequate examination of uterine size and position.
- E. Allergic reaction to or overdose of anesthesia.
- F. Multiple causes can include perforation, incomplete evacuation, uterine fibroids, or atony.
- G. Overly forceful cervical dilation or rough scraping of the uterus.
- H. Multiple causes can include inadequate infection prevention procedures, pre-existing infection, or incomplete procedure.

## Participant Handout 13.2A: Case Studies—Complications Related to the MVA Procedure

### Group 1

#### Case Study #1

A patient comes to the hospital for treatment of an incomplete abortion. The physician performs a MVA. While the patient is still in the recovery room, she begins bleeding very heavily.

1. What are the possible causes of this heavy bleeding?
2. What additional information might help you make your diagnosis and why?
3. What physical examination would you perform that might help you make an accurate diagnosis?
4. How would you manage each condition?

## Participant Handout 13.2B: Case Studies (continued)

### Group 1

#### Case Study #2

You are called by the nurse to see a patient who had a MVA procedure yesterday. She is in significant pain, the uterus is enlarged, firm, tense and tender, and she is afebrile. She is not bleeding and has hardly bled at all since the procedure.

1. What is the likely diagnosis?
2. What additional information is useful before treatment?
3. How should this case be managed?
4. What may have caused this condition?

## Participant Handout 13.2C: Case Studies (continued)

### Group 2

### Case Study #3

A patient comes to the hospital for treatment of an incomplete abortion. The physician performs a MVA. While the woman is still in the recovery room she experiences severe abdominal pain. She is diaphoretic and light-headed. On examination her uterus feels large and hard.

1. What are the possible causes of this severe abdominal pain?
2. What additional information would you need to know before beginning treatment and why?
3. What physical examination would you perform that might help you make an accurate diagnosis?
4. How would you manage this condition?

## Participant Handout 13.2D: Case Studies (continued)

### Group 2 Case Study #4

A patient received a MVA for treatment of an incomplete abortion. Two weeks later she returns to the hospital complaining of cramps and persistent bleeding. She tells you that she feels like she is still pregnant. On examination the uterus is boggy and enlarged, the os is open, the uterus is mildly tender, and there is no adnexal tenderness.

1. What is your probable diagnosis and what other conditions should you rule out?
2. What additional information would you need and why?
3. How would you manage the most common cause of this complication ?





## Participant Handout 13.2G: Case Studies (continued)

### Group 4

#### Case Study #7

A 20-year-old woman presents at a clinic for treatment of an incomplete abortion. She is determined to be 9 weeks LMP by her own account. A bimanual exam was performed on admission. The results confirmed the patient's dates. She has no children, and no history of previous pregnancies. During the MVA procedure, the cannula used penetrates to a level associated with a 14 week LMP uterine size before you even begin the suction.

1. What could be the cause of this condition?

2. What steps should be taken?



## Participant Handout 14.1: Postabortion Contraception—Selection Guidelines for Contraceptive Methods

Method	Timing after Incomplete Abortion	Advantages	Precautions	Remarks
Non-Fitted Barriers (latex and vinyl male and female condoms; vaginal sponge; suppositories; foaming tablets; jelly; or film)	Begin use as soon as intercourse is resumed.	<ul style="list-style-type: none"> <li>No serious method-related health risks</li> <li>Good interim method if initiation of another method must be postponed</li> <li>No medical supervision required</li> <li>Condoms (latex and vinyl) provide protection against STDs (including HBV and HIV)</li> <li>Easily obtained</li> </ul>	<ul style="list-style-type: none"> <li>Do not begin use if there has been a vaginal or cervical injury until after it has healed.</li> </ul>	<ul style="list-style-type: none"> <li>Less effective than IUD or hormonal methods</li> <li>Requires use with each episode of intercourse</li> <li>Requires continued motivation</li> <li>Resupply must be available</li> <li>May interfere with intercourse</li> </ul>
Fitted Barriers Used With Spermicide (diaphragm or cervical cap with foam or jelly)	<p>Diaphragm can be fitted immediately after first-trimester abortion. After second-trimester abortion, fitting should be delayed until uterus returns to pre-pregnancy size (6-8 weeks).</p> <p>Delay fitting cervical cap until bleeding has stopped and uterine involution is complete.</p>	<ul style="list-style-type: none"> <li>No method-related health risks</li> <li>Inexpensive</li> <li>Good interim method if initiation of other method must be postponed</li> <li>Some protection against STDs when used with spermicide</li> <li>Easily discontinued</li> <li>Effective immediately</li> </ul>	<ul style="list-style-type: none"> <li>Needs to be refitted following a second trimester incomplete abortion.</li> <li>Do not begin use if there has been a vaginal or cervical injury until after it has healed.</li> </ul>	<ul style="list-style-type: none"> <li>Less effective than IUD or hormonal methods</li> <li>Requires use with each episode of intercourse</li> <li>Requires continued motivation</li> <li>Resupply must be available</li> <li>Associated with urinary tract infections in some users</li> <li>Requires fitting by trained service provider</li> </ul>

## Participant Handout 14.1: Postabortion Contraception (continued)

Method	Timing after Incomplete Abortion	Advantages	Precautions	Remarks
Oral Contraceptives	Begin pill use immediately, preferably on the day of treatment.	<ul style="list-style-type: none"> <li>• Highly effective</li> <li>• Can be started immediately even if infection is present</li> <li>• Can be provided by non-physicians</li> <li>• Does not interfere with intercourse</li> </ul>	<ul style="list-style-type: none"> <li>• In cases of severe bleeding and related severe anemia, use Progestin Only Pills with caution until the cause of hemorrhage or anemia has resolved.</li> </ul>	<ul style="list-style-type: none"> <li>• Requires continued motivation and regular use</li> <li>• Re-supply must be available</li> <li>• Effectiveness may be lowered when certain medications are used (e.g., rifampin, griseofulvin)</li> </ul>
Injectables (DMPA, NET-EN)	May be given immediately after abortion in the first or second trimester.	<ul style="list-style-type: none"> <li>• Highly effective</li> <li>• Easily administered by non-physician</li> <li>• Does not interfere with intercourse</li> <li>• Not user-dependent except for injection every two or three months</li> <li>• Health benefits</li> <li>• Acceptable for women who should avoid estrogen</li> </ul>	<ul style="list-style-type: none"> <li>• In cases of severe bleeding and related anemia, delay starting until acute anemia improves.</li> </ul>	<ul style="list-style-type: none"> <li>• May cause irregular bleeding; excessive bleeding may occur in rare instances</li> <li>• Possible delayed return to fertility</li> <li>• Must return to clinic for injections</li> <li>• Condoms recommended if at risk for STDs, HBV, and HIV</li> </ul>

## Participant Handout 14.1: Postabortion Contraception (continued)

Method	Timing after Incomplete Abortion	Advantages	Precautions	Remarks
Implants (Norplant)	May be inserted immediately after abortion in the first or second trimester. If adequate counseling and informed decision-making cannot be guaranteed, it may be best to delay insertion and provide an interim temporary method.	<ul style="list-style-type: none"> <li>• Highly effective</li> <li>• Long-term contraception</li> <li>• Immediate return to fertility on removal</li> <li>• Does not interfere with intercourse</li> <li>• Health benefits</li> <li>• No supplies needed by client</li> </ul>	<ul style="list-style-type: none"> <li>• In cases of severe bleeding and related anemia, delay starting until acute anemia improves.</li> </ul>	<ul style="list-style-type: none"> <li>• May cause irregular bleeding or amenorrhea</li> <li>• Trained provider required to insert and remove</li> <li>• Cost effectiveness depends on long-term use</li> <li>• Implants only effective for five years</li> <li>• Condoms recommended if at risk for STDs, HBV, and HIV</li> </ul>
IUD	First Trimester: IUDs can be inserted immediately if the uterus is not infected. If adequate counseling and decision-making cannot be guaranteed, it may be best to delay insertion and provide an interim temporary method.	<ul style="list-style-type: none"> <li>• Highly effective</li> <li>• Long-term contraception</li> <li>• Immediate return to fertility following removal</li> <li>• Does not interfere with intercourse</li> <li>• Convenient</li> <li>• No supplies needed by client</li> <li>• Requires only monthly checking for strings</li> </ul>	<ul style="list-style-type: none"> <li>• In cases of uterine perforation, or serious vaginal or cervical injury, do not insert until serious injury has healed.</li> <li>• In cases of severe bleeding and related anemia, delay starting until acute anemia improves.</li> </ul>	<ul style="list-style-type: none"> <li>• Uterine perforation can occur during insertion</li> <li>• May increase risk of PID and subsequent infertility for women at risk for STDs HBV, and HIV</li> <li>• Trained provider required to insert and remove</li> </ul>

## Participant Handout 14.1: Postabortion Contraception (continued)

Method	Timing after Incomplete Abortion	Advantages	Precautions	Remarks
IUD continued	Second Trimester: Delay for six weeks unless equipment and expertise available for immediate postabortal insertion. Insure there is no uterine infection. (If infection suspected, delay insertion until the infection has been resolved and use an interim method.)	<ul style="list-style-type: none"> <li>Only one follow-up visit needed unless there are problems</li> </ul>	<ul style="list-style-type: none"> <li>In cases of second-trimester incomplete abortion, an IUD should only be inserted by a skilled experienced provider who can perform high fundal placement of the IUD.</li> </ul>	<ul style="list-style-type: none"> <li>May increase menstrual bleeding and cramping during the first few months</li> </ul>

**Source:** Winkler, J., E. Oliveras, and N. McIntosh. 1995. *Postabortion care: a reference manual for improving quality of care*. Postabortion Care Consortium.

## Participant Handout 14.2: Family Planning and Informed Choice

Individual Factors and Counseling Recommendations and Rationale (more than one may apply)		
If the woman...	Recommendations	Rationale
Does not want to be pregnant soon	Consider all methods. Help the woman make a free, informed choice.	Seeking treatment for incomplete abortion may suggest that the woman does not want to be pregnant.
Is under stress, in pain, or not prepared to make a long-term decision	Consider all methods. Do not encourage use of permanent methods. Provide referral for a more long-term approach to contraception.	Stress and pain interfere with making free, informed decisions. The time of treatment for incomplete abortion may not be a good time for a woman to make a permanent decision.
Was using a contraceptive method when she became pregnant; or Had stopped using a method	Assess why contraception failed and what problems the woman might have using a 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 resupply, discontinue use, and change methods.	Method failure, unacceptability, ineffective use, or lack of access to supplies may have led to unwanted pregnancy.  These factors may still be present and may lead to another unwanted pregnancy.
Has a partner who is unwilling to use condoms or will prevent use of another method	If the woman wishes, include her partner in counseling. If the woman is at risk for STDs, tell her about methods that offer some protection. Protect the woman's confidentiality even if she does not involve her partner. Do not recommend methods that the woman will not be able to use effectively.	In some instances, involving the male will lead to successful contraception; however, if the woman, for whatever reasons, does not want to involve a partner, her wishes should be respected.
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.

**Source:** Winkler, J., E. Oliveras, and N. McIntosh. 1995. *Postabortion care: a reference manual for improving quality of care*. Postabortion Care Consortium.

## Participant Handout 14.3: Search and Learn Exercise

1. How soon can a diaphragm be fitted following a first trimester abortion?
2. What is the precaution to using a non-fitted barrier method for postabortion contraception?
3. Which method is more effective in preventing pregnancy, an IUD or a non-fitted barrier method like a condom?
4. How soon should oral contraceptives be started following treatment of an incomplete abortion?
5. What is one possible side effect of the injectable contraceptive DMPA?
6. In cases of severe bleeding and related anemia, when should the injectable contraceptive DMPA be initiated?
7. When can an IUD be inserted following the treatment of a first trimester incomplete abortion?
8. Why is female voluntary sterilization **not** an appropriate method immediately following treatment of an incomplete abortion?
9. If there has been an injury to the genital tract as a result of an unsafe abortion, when can female voluntary sterilization be safely performed?
10. Why is natural family planning not recommended for immediate use following treatment for abortion complications?
11. If a woman does not want to become pregnant following an incomplete abortion, which family planning methods should she consider?

### **Participant Handout 14.3: Search and Learn Exercise (continued)**

12. If a patient comes to your facility in severe pain following an unsafe abortion, but tells you that she never wants to become pregnant again and wants to be sterilized immediately, what would you advise and why?
13. If a woman comes to your facility in very poor health following an unsafe abortion, but tells you she wants to become pregnant again soon, what would you advise?
14. What contraceptive advice would you give a woman who has just had an unsafe abortion because she became pregnant while taking pills?
15. When can a patient start oral contraceptives following a septic abortion?
16. In cases of severe bleeding and related severe anemia following an unsafe abortion what would you advise a patient about taking Progestin Only Pills?
17. Does DMPA protect a woman who is at risk of contracting a STD?
18. When can an IUD be inserted following a second trimester abortion?
19. What advice would you give a patient who wants to use a method of family planning, but whose husband does not agree?
20. How is IUD insertion different following a second trimester abortion than one following a first trimester abortion?

## Participant Handout 15.1: Facilities for Postabortion Care

### Community Level

Staff May Include	Activities	Facilities
<p>Community health workers with basic health training including:</p> <ul style="list-style-type: none"> <li>• Traditional birth attendants (TBAs)</li> <li>• Traditional healers</li> <li>• Community residents</li> </ul>	<p>Recognition of abortion and complications.</p> <p>Timely referral to the formal health care system</p> <p>Health education regarding unsafe abortion</p> <p>Family planning information, education, and services</p>	<p>There are usually no formal health care facilities at this level.</p>
<p><b>Remarks:</b> The level of responsibility varies from country to country dependent on the primary health care programme. Good communication between the community health worker and the primary level is essential.</p>		

**Source:** WHO, Maternal Health and Safe Motherhood Programme, Division of Family Health. *Clinical management of abortion complications: a practical guide*. 1994. Geneva: WHO.

## Participant Handout 15.1: Facilities for Postabortion Care (continued)

### Primary Level

Staff May Include	Activities	Facilities
<p>Auxiliary health workers including:</p> <ul style="list-style-type: none"> <li>• Health assistants</li> <li>• Aides</li> <li>• Dispensers/dressers</li> </ul> <p>Nurses</p> <p>Some primary level facilities may have the following staff available:</p> <ul style="list-style-type: none"> <li>• Trained midwives</li> <li>• Medical residents</li> <li>• General practitioners</li> </ul>	<p>All listed for the community level <u>plus</u>:</p> <p>Simple physical and pelvic exam</p> <p>Diagnosis of stages of abortion</p> <p>Resuscitation/preparation for treatment or transfer (if needed) including:</p> <ul style="list-style-type: none"> <li>• Management of the airway &amp; respiration</li> <li>• Control of bleeding</li> <li>• Pain control</li> </ul> <p>Hematocrit/hemoglobin test</p> <p>Referral</p> <p>Postabortion family planning counselling and services</p>	<p>Outpatient treatment room or area</p> <p>Side laboratory</p> <p>Family planning area or clinic</p>
<p><b>If trained staff and appropriate equipment are available, the following additional activities can be performed at the primary level:</b></p> <ul style="list-style-type: none"> <li>• Initiation of essential treatments, including antibiotic therapy, intravenous fluid replacement, and oxytocics</li> <li>• Uterine evacuation (first trimester)</li> <li>• Pain control including paracervical block, simple analgesia and sedation</li> </ul>		<p>Separate room or private corner of treatment room</p>
<p><b>Remarks:</b> The activities are based on the skills available. Existing facilities are usually adequate. Rearrangement of the facilities and updating of equipment may be all that is required to improve the abortion care provided. Some facilities may already have uterine evacuation equipment on hand but for some, purchase may be required. Protocol and standing arrangements for transport to higher levels are necessary. If an ambulance is available, it must be kept in serviceable state. If no ambulance is available, standing arrangement should be made with other sectors. It is important to have a reliable system of communication with the other levels of care.</p>		

**Source:** WHO, Maternal Health and Safe Motherhood Programme, Division of Family Health. *Clinical management of abortion complications: a practical guide*. 1994. Geneva: WHO.

## Participant Handout 15.1: Facilities for Postabortion Care (continued)

### First Referral Level

Staff May Include	Activities	Facilities
<p>All listed for primary level <u>plus:</u></p> <ul style="list-style-type: none"> <li>• Trained midwives</li> <li>• Medical residents</li> <li>• General practitioners</li> </ul>	<p>All activities listed for the primary level <u>plus:</u></p> <p>Uterine evacuation for 1st and 2nd trimester</p>	<p>Treatment room in outpatient area or gynecology ward and recovery area</p> <p>Laboratory</p>
<p>Specialist including a physician with training in Ob/Gyn may sometimes be available</p>	<p>Blood cross-match and transfusion</p> <p>Treatment of most abortion complications</p> <p>Local and general anesthesia</p> <p>Laparotomy and indicated surgery, including surgery for ectopic pregnancy if skilled staff are available</p> <p>Diagnosis of pregnancy</p> <p>Diagnosis and referral of severe complications such as septicemia, peritonitis or renal failure</p>	<p>Surgical theatre</p>
<p><b>Remarks:</b> Most facilities and equipment needed for treatment of abortion complications will already be present in a district hospital for general emergencies and essential obstetric functions. Expansion and/or additional equipment may be necessary. Supply logistics and maintenance procedures may need to be strengthened. A serviceable ambulance should be on hand or other arrangements made.</p>		

**Source:** WHO, Maternal Health and Safe Motherhood Programme, Division of Family Health. *Clinical management of abortion complications: a practical guide*. 1994. Geneva: WHO.

## Participant Handout 15.1: Facilities for Postabortion Care (continued)

### Secondary and Tertiary Level

Staff May Include	Activities	Facilities
All staff listed for the first referral level <u>plus</u> :	All activities listed for the first referral level <u>plus</u> :	Treatment room in outpatient or inpatient gynecological areas
Specialists in Ob/Gyn and other allied specialties	<p>Uterine evacuation for all abortions</p> <p>Treatment of severe complications (for example, bowel injury, tetanus, renal failure, gas gangrene, severe sepsis, septic shock, coagulopathy) including:</p> <ul style="list-style-type: none"> <li>• Diagnostic X ray</li> <li>• Ultrasonography</li> <li>• Laparoscopy</li> <li>• Laparotomy including hysterectomy</li> </ul>	<p>24 hour access to surgical theatre (may include a specific gynecological emergency theatre)</p> <p>More complete laboratory facilities</p> <p>Intensive care facilities</p> <p>Shielded X-ray room</p> <p>Blood bank</p>
<p><b>Remarks:</b> Most of the facilities and equipment are present. Rearrangement of patient flow or expansion of facilities may improve services. Additional equipment is likely to include vacuum aspiration equipment.</p>		

**Source:** WHO, Maternal Health and Safe Motherhood Programme, Division of Family Health. *Clinical management of abortion complications: a practical guide*. 1994. Geneva: WHO.

**Participant Handout 15.2**

**Facility Assessment for Postabortion Care Services**

Pathfinder International

# Clinic Assessment Guide

Pathfinder International

## Introduction

This assessment guide is designed to help assessment teams, project managers, trainers, supervisors, and others collect detailed information on the range and quality of postabortion care services available at a given facility. Pathfinder intends the guide primarily to be used as a needs assessment instrument for determining what the physical, informational, training, and commodities needs of facilities preparing to improve postabortion care services are. This needs assessment also provides essential baseline information, and this assessment guide can be used again, or at regular intervals, to examine changes and the impact of program interventions. Pathfinder has designed the guide primarily for use by a team, although it may be used by an individual clinician.

Determining minimum requirements for postabortion care is a difficult task. Given the great differences in contexts and availability of resources, there is no simple means for quantifying quality of care and services. This assessment guide can help Pathfinder and its grantees determine what each facility needs in order to improve the quality of services and design appropriate interventions. The guide allows observers to look at key areas of facilities and note which areas require improvement.

## Using This Assessment Guide

*Discussing Objectives:* Before starting to fill out the individual sections of this guide, it is extremely important that the assessment team discuss the objectives of the assessment with facility staff and supervisors. The assessment team leader should explain clearly how and why the assessment will be done, emphasizing that the assessment guide is designed not to find fault, but to identify areas where improvements can be made.

*Completing the Guide:* Complete only the sections of the guide which are relevant to the facility and the services it provides. The sections do not need to be completed in a particular order. For example, if there are postabortion care patients at the facility, complete those sections which require observation of patients receiving services.

### *Filling out the Data Collection Forms:*

- For each section, fill in the information requested, using the ratings given at the start of each section. In many cases the same rating system is used to measure quality, frequency, or quantity.
- Consider whether a team or an individual will be most appropriate, and decide who will collect the data for different sections.

- Take into account the routine of the service providers and try to make data collection as unobtrusive as possible.
- Be as objective as possible—if a team is collecting data, it is important that you agree on definitions and ratings before beginning the data collection.
- Consider timing—which sections require patients, which sections can be completed when there are no clients.
- Be flexible—it may be impossible to complete the whole guide at one time. You may have to wait to observe some procedures.
- Just observe. Do not discuss procedures with service providers.
- Use the comments/recommendations column—these observations often provide the useful information.

*Using the Information:* Go over the data with facility staff, looking at each section and interpreting the data as a whole. Discuss which areas show the greatest strengths and weaknesses and how care and facilities could be improved. The assessment tool can provide baseline information for planning, prioritizing, and decision-making. However, the guide may be used in a number of other ways:

- As an ongoing monitoring tool.
- For annual evaluations.
- For designing training opportunities.
- For developing workplans.
- As a self-assessment tool for staff.

### **Organization of Assessment Guide**

This guide is organized according to the sections listed below. Each section starts with an introduction about why the information is being collected, why the topic is important, and how the observations/data collection should be carried out.

- I. General Background Information
- II. Patient Volume and Range of Services Provided
- III. Personnel
- IV. Observation of Recordkeeping & Treatment Protocols
- V. Observation of Rooms, Equipment & Commodity Storage
- VI. Observation of Training Equipment & Supplies
- VII. Observation of Infection Prevention Practices
- VIII. Observation of Counseling Practices
  - General Conditions
  - Contraception
  - Providing Information About the Procedure
- IX. Assessment of Provider's Clinical Skills/Performance
  - Physical assessment
  - Clinical history
  - MVA procedure
  - D&C

## I. General Background Information

This section is designed to provide general information about the facility, its size and location, as well as details of the assessment process.

Date of Visit:

Name of Facility:

Location:

Type of Facility: MOH \_\_\_\_\_ NGO \_\_\_\_\_ Other \_\_\_\_\_

Number of Beds: Total \_\_\_\_\_ Obstetrics \_\_\_\_\_ Gynecology \_\_\_\_\_

Staff Interviewed:

Person Conducting Interview and Observation:

## II. Client Volume and Range of Services Provided

This section is for gathering information on client volume and the range of services provided. In order to maintain and improve the quality of services, service providers should have experience in all aspects of postabortion care, including—where appropriate—counseling, MVA, and the provision of contraceptive methods. At least one staff member trained to provide emergency postabortion care should be present at all times.

Using the facility record books, record below the postabortion care statistics for one month. If statistics vary greatly from month to month, collect 3 months worth of information and record an average for a 1 month period. Any additional comments or recommended actions should be noted in the "Comments/Recommendations" column.

Service Provided	No. of Clients	Comments/Recommendations					
<b>Postabortion Family Planning Services</b>							
Combined Oral Pill							
Progestin-Only-Pill							
Injectables (monthly)							
Injectables (Trimonthly/DMPA)							
IUD							
Condoms / Spermicides							
Foaming Tablets							
Norplant							
Female Sterilization							
<b>Postabortion Care Services</b>							
Treatment of Incomplete Abortions (MVA)							
Treatment of Incomplete Abortions (D&C)							
Postabortion consultations							
<b>Schedule of Available Services</b>							
<b>Days and Hours of Services</b>							
<b>Services Offered</b>	<b>Sunday</b>	<b>Monday</b>	<b>Tuesday</b>	<b>Wednesday</b>	<b>Thursday</b>	<b>Friday</b>	<b>Saturday</b>
Family Planning							
Family Planning Counseling							
MVA							
D&C							
Postabortion Counseling							



## IV. Observation of Recordkeeping and Treatment Protocols

This section is designed to provide information on how the facility keeps track of the services provided and patients. It is important to keep accurate records of patients and services in order to assess patients' health against their medical history. Client records should be stored in such a way that they may be easily retrieved. Records should be accurate and complete, including information on complications and deaths. Select 10–25 patient records from the past year at random and review them for accuracy and completeness.

Review the facility's recordkeeping system and rate the record keeping on the following scale:

- 1 = Poor or Rarely/Never                      3 = Good or Routine/Always  
 2 = Average or Sometimes                    N/A = Does not apply/Not observed

Where information beyond the rating is needed or you have recommendations for improvement, use the "Comments/Recommendations" column.

General Recordkeeping	Rating	Comments/Recommendations
Is there a record of admission on arrival?		
Is the client given a card to record her visit to the facility?		
Is there a system for filing and retrieval of clients' records?		
Can records be retrieved easily?		
<b>Are the following records accurate and complete?</b>		
• Informed Consent Form		
• Medical History		
• Physical Examination		
• Laboratory Results		
• Postoperative evaluation if D&C/MVA Performed		
• Record of Counseling Session		
• FP Method Chosen		
• Number of FP Supplies Given		
• Referral Form		
Is there a registration book that includes incomplete abortions?		
Is the length of hospital stay for patients with incomplete abortions recorded anywhere?		
Is the collected data reviewed and analyzed? If so, by whom?		
Service trends are reported back to key hospital staff.		

#### IV. Observation of Recordkeeping and Treatment Protocols (continued)

Treatment Procedures/Protocol	Rating	Comments/Recommendations
Are there service delivery guidelines for treatment of incomplete or septic abortion?		
Are the protocols routinely followed?		
Are there guidelines for postabortion family planning?		
Are these guidelines followed?		
Is there a procedure followed for D&C/MVA?		
Are maternal deaths recorded?		
Is there a mechanism for reviewing maternal deaths?		
Is there a mechanism for reviewing complicated cases?		

## V. Observation of Rooms, Equipment, and Commodity Storage

The questions in this section are designed to provide information on the physical aspects of the facility, including space for services, utilities, equipment, supplies, and commodities. Whenever possible, facilities should have dedicated spaces or rooms for a waiting area, private counseling area, private examination room, operating room, recovery area, training room, a room for processing contaminated instruments, and an appropriate method for disposing of medical waste. Facilities should also have certain basic amenities such as electricity, running water, adequate lighting, and functioning sinks and toilets. Sufficient supplies and equipment for the provision of postabortion care are also very important to the availability and quality of services. Procedures and facilities for storing commodities and contraceptive supplies must be adequate.

Recognizing that wide variations in context and resources available lead not only to significant differences in physical structures, utilities, and equipment, but also to unique solutions to the challenges posed by insufficient resources, it is particularly important to include comments and observations in this section. For example, if a facility has no running water, make a note of how instrument cleaning and handwashing is carried out; if there is no electricity, list alternative light sources used.

Does the clinic have dedicated room for each of the purposes listed in the chart below? If so, rate them according to the following scale.

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- 1 = Inadequate, not present, needs renovation, poor quality or insufficient supply
- 2 = Adequate facility, quality or supply
- 3 = Good facility, good quality or good supply of an item
- N/A = Not observed, Not applicable

If any of the rooms needs renovation, specify the necessary renovations in the "Comments/Recommendations" column of the following chart.

**V. Observation of Rooms, Equipment, and Commodity Storage (continued)**

Room/Area	Rating	Comments/Recommendations
Separate room for the processing of equipment		
An appropriate place for the disposal of medical waste		
Multi-purpose operating room		
Isolated operating room for treatment of incomplete abortion		
Recovery area		
Laboratory		
Training room		
<b>Outpatient Clinic</b>		
Private counseling area		
Private examination room		
<b>Waiting Area</b>		
Adequate seating for all waiting patients		
Waiting area is protected from rain		
A toilet for waiting patients		
IEC material appropriate for clients		

The Site Has:	Rating	Comments/Recommendations
Sign with clinic working hours		
Signs directing clients to services inside the clinic		
Electricity		
Running water		
<b>Examination Room</b>		
Functioning sink		
Adequate lighting		
An adequate supply of water		
Stethoscope		
Sphygmomanometer		

**V. Observation of Rooms, Equipment, and Commodity Storage (continued)**

The Site Has:	Rating	Comments/Recommendations
Thermometer		
Gloves		
Instruments for Gynecology Exam		
Gooseneck Lamp		
<b>Equipment</b>		
Postabortion IUD insertion/removal kits available		
MVA equipment available		
D & C equipment available		
Operating table		
Instrument trays		
Instrument table		
OR light		
Sphygmomanometer		
Stethoscope		
Gooseneck lamp		
Revolving stool		
Screens (for privacy)		
Linens		
Drapes		
Gloves		
<b>Essential Drugs for Postabortion Care</b>		
<i>Anesthetics, Local</i>		
Atropine		
Diazepam/Valium		
Lidocaine 1%, without epinephrine		

### V. Observation of Rooms, Equipment, and Commodity Storage (continued)

Essential Drugs for Postabortion Care	Rating	Comments/Recommendations
<b>Analgesics</b>		
Acetylsalicylic acid		
Ibuprofen		
Pethidine (or suitable substitute)		
<b>Antibiotics</b>		
Ampicillin		
Benzympenicillin		
Crystalline Penicillin		
Chloramphenicol		
Metronidazole		
Sulfamethoxazole		
Sulfamethoxazole-trimethoprim		
Tetracycline		
<b>Blood Products</b>		
Dried human plasma		
<b>Antiseptics</b>		
Chlorhexidine 4% (Hibitane, Hibiscrub)		
Iodine preparations, 1–3%		
Iodophors		
<b>Disinfectants</b>		
Sodium hypochlorite 5–10% (liquid bleach)		
Formaldehyde 8% (Formalin)		
Glutaraldehyde 2% (Cidex)		

### V. Observation of Rooms, Equipment, and Commodity Storage (continued)

Essential Drugs for Postabortion Care	Rating	Comments/Recommendations
<b>Tetanus Toxoid</b>		
<b>Oxytocics</b>		
Ergometrine injection		
Ergometrine tablets		
Oxytocin injections		
<b>Intravenous Solutions</b>		
Water for injections		
Sodium lactate (Ringer's)		
Glucose 5% and 50%		
Glucose with isotonic saline		
Potassium chloride		
Sodium chloride		
Safe needles and syringes		
<b>Please note any additional equipment and supplies needed</b>		

### V. Observation of Rooms, Equipment, and Commodity Storage (continued)

Rate the facility's commodities storage procedures, facilities, and supplies using the following rating scale:

- 1 = Inadequate, not present, needs renovation
- 2 = Adequate facility, quality, or supply
- 3 = Good facility
- N/A = Not observed, Not applicable

Mark contraceptive stock-outs with a "1" in the appropriate "Rating" box to indicate an inadequate system for supplies.

The following systems are in place:	Rating	Comments/Recommendations
Inventory of equipment and commodities		
Storage system according to commodity expiration dates		
Supplies maintained in good condition		
Expired contraceptives are destroyed		
System for ordering (reordering) supplies		
<b>Is the storage facility protected from damage by:</b>		
Sun and rain		
Rats and pests		
<b>Did supplies of any contraceptive methods run out during the past three months?</b>		
Combined pills		
IUDs		
Condoms		
Injectables		
Norplant Implants		
Progestin Only Pills		
Spermicides		
Other:		

## V. Observation of Rooms, Equipment, and Commodity Storage (continued)

It is important to ascertain whether the amount and condition of contraceptive supplies are sufficient to provide family planning services on an ongoing basis. Perform a rough count of the total number of contraceptives in stock in the storeroom for each method supplied, and note the number below, along with any other comments or recommendations.

Contraceptive Method	Quantity in Stock	Comments/Recommendations
Combined Pills		
Progestin Only Pills		
Condoms		
Spermicides		
IUDs		
Injectables		
Norplant		

## VI. Observation of Training Equipment and Supplies

This section is designed to collect information on training equipment. If on-site clinical training is to be provided, ideally training equipment such as overhead and slide projectors, video player, whiteboard or blackboard, and anatomic models, should be available and in good working order. A knowledge and skills-based training curriculum is also an important component of clinical training.

Please indicate in the table below if equipment used for training is functioning, using the following rating scale:

- 1 = Inadequate, not present, needs renovation, poor quality, or insufficient supply
- 2 = Adequate quality and supply
- 3 = Good quality or supply of item
- N/A = Not observed, Not applicable

The FP Site Has a Functional:	Rating	Comments/Recommendations
Training room		
Overhead projector		
Slide projector		
Projection screen		
Television		
VCR		
Video cassettes for training (include number and variety)		
Black board or white board		
Training curriculum		
Reference material		
Pelvic model		
Handheld uterine models		
Postpartum uterine models		
Breast models		

## VII. Observation of Infection Prevention Practices

This section provides information on a variety in infection prevention practices and procedures. The facility should work towards the highest possible standards of infection prevention. The best possible guidelines for infection prevention procedures should be in place and all contaminated instruments should be being processed according to the established protocol.

Enter the appropriate rating from the list below into the "Rating" column of the monitoring chart. Please note the name of the person observed on this worksheet. Note any further remarks in the "Comments/Recommendations" column.

- 1 = Poor or Rarely / Never
- 2 = Average or Sometimes
- 3 = Good or Routine / Always
- N/A = Does not apply / Not observed

Task	Rating	Comments/Recommendations
<b>Decontamination</b>		
0.5% chlorine solution available		
Instructions for mixing chlorine are present		
Plastic buckets available and solutions are labeled		
Wears rubber gloves		
Places <u>all</u> instruments in chlorine solution for 10 minutes immediately following procedure		
Draws chlorine solution through cannula and syringe		
Mixes chlorine solution correctly		
Removes items from chlorine after 10 min. and rinses or cleans immediately to prevent rust		
Wipes down exam table with chlorine between patients		
<b>Cleaning of Instruments</b>		
Completely disassembles instruments and/or opens jaws of jointed items		
Washes <u>all</u> surfaces with soap and water		
Thoroughly cleans serrated edges		
Rinses all surfaces with clean water		
Wears rubber gloves		
Cleaning equipment, detergent & brushes available		
Reassembles syringe		

## VII. Observation of Infection Prevention Practices (continued)

Task	Rating	Comments/Recommendations
<b>High Level Disinfection (HLD)</b>		
<i>Boiling (cannula and metal equipment only)</i>		
Completely submerges items in water		
Starts timing when boiling begins		
Keeps water at a rolling boil for 20 min.		
Air dries equipment		
Removes boiled items using HLD forceps		
Stores items in HLD container		
<i>Chemical (for cannula, metal equipment &amp; syringe)</i>		
Immerses items completely		
Submerges instruments for 20 min.		
Rinses items with boiled water		
Stores items in HLD container for up to 1 week		
<b>Sterilization</b>		
<i>Autoclaving (for metal instruments &amp; gloves only)</i>		
Wraps instruments		
Arranges packs loosely in autoclave		
Puts holes in drums in open position		
Sterilizes for 30 min. for wrapped items at 121°C (250° f) and 106 kPa (15 lbs/in <sup>2</sup> )		
Stores items in a sterile container		
<i>Dry heat (for metal instruments only)</i>		
Puts loose instruments on trays		
Begins timing after set temperature has been reached		

## VII. Observation of Infection Prevention Practices (continued)

Task	Rating	Comments/Recommendations
Uses standard time/temperature 170° C (340° F) – 60 minutes 160° C (320° F) – 120 minutes 150° C (300° F) – 150 minutes 140° C (285° F) – 180 minutes 121° C (250° F) – overnight		
Stores items in a sterile container		
<i>Chemical sterilization (for cannula, syringe and metal instruments)</i>		
Makes fresh 2% glutaraldehyde		
Soaks cannula, syringe, and instruments in covered container 8-10 hours		
Rinses items with sterile water		
Stores items in a sterile container		
<b>Handwashing</b>		
Soap available		
Clean towel available		
Washes hands correctly for 15 seconds with running water		
Washes hands between clients		
<b>Barriers</b>		
Uses clean linen		
Changes paper or linen between clients (if possible)		
Changes sterile gloves between procedures		
Puts gloves on properly		
Disposes of gloves properly		

### VII. Observation of Infection Prevention Practices (continued)

Task	Rating	Comments/Recommendations
<b>Storage and Disposal</b>		
Antiseptic solutions are labeled		
HLD or sterilizes pickup forceps daily and stores in a dry HLD or sterile container		
Immediately disposes of used needles and syringes in a special container		
<b>Handling specimens</b>		
Wears clean gloves when obtaining or handling specimens		
Immediately cleans spills of blood or other bodily products with 0.5% chlorine solution		

### VIII. Observation of Counseling

This section is for information on counseling practices. Patient counseling is an essential component in the provision of postabortion care services. Counseling is done to explain the patient's physical condition to her, to explain procedures, to help her manage pain and to inform her about contraceptive options. Counseling must be a standard training component and clinic staff must be adequately trained in counseling.

Please indicate if the counseling practices listed below are properly discussed using the following rating system.

- 1 = Poor information/counseling skills infrequently performed
- 2 = Adequate information/counseling skills sometimes performed
- 3 = Good information/counseling skills routinely performed
- N/A = Not observed, Not applicable

Please note who was observed on this worksheet.

Counseling Practice	Rating	Comments/Recommendations
<b>General Conditions</b>		
Visual and auditory privacy is acceptable for counseling		
Greets client in a respectful manner		
Uses language the client can understand		
Communication between client & provider is interactive		
Creates a warm atmosphere		
Has a cordial and respectful attitude		
Discusses patient's fears, emotions, and feelings related to her situation		
<b>Contraception</b>		
Identifies the patient's intentions and desires		
Explains the range of methods offered in the clinic		
Learns the client's opinion about FP methods		
Encourages the client to ask questions		

### VIII. Observation of Counseling (continued)

Counseling Practice	Rating	Comments/Recommendations
Asks client information that will help determine suitability of the method (age, number of children, birth date of last child, whether she wishes to space or limit pregnancies)		
Asks if the client has a preferred method		
If the client has a preferred method, asks what she knows about the method and if she wants to discuss other methods that may be suitable for her		
If the client has no preferred method, informs her of methods which may be appropriate for her given her reproductive goal and other needs		
Allows client to receive her/his chosen method if medically eligible		
Describes benefits and risks		
Discusses effectiveness		
Discusses risk factors for STD/HIV		
Uses visual aids		
Provides key information on method chosen – How to use – Signs to watch for – When to return		
Gives accurate information when client expresses incomplete or incorrect information		
Tells client to return if s/he has any concerns		
<b>Providing Information about the procedure</b>		
Explains the procedure to be performed		
Identifies and manages the patient's stress		
Counsels about pain management		
Objectively informs patient of risks		
Provides emotional support during the procedure and helps the patient relax		
Informs the patient about post-procedure care and how to recognize possible complications		

## IX. Assessment of Provider Clinical Skills/Performance

This section is for collecting information on provider clinical skills. Whenever possible providers are observed conducting a physical assessment, taking a patient history, providing contraception, and performing an MVA or D&C. Since some clinic staff may act as trainers and preceptors, their clinical skills must meet certain uniform standards. Key indicators of technical competence may be used to determine whether clinic staff need further training.

Enter the appropriate rating and note any further remarks in the "Recommendations" column. Please note who was observed on this worksheet.

1 = Poor or Rarely/Never  
2 = Average or Sometimes

3 = Good or Routine/Always  
N/A = Does not apply/Not observed

Task	Rating	Comments/Recommendations
<b>Physical assessment</b>		
Provider makes client comfortable and gives feedback during and after the examination		
Privacy is ensured during examination		
Provider follows correct steps in conducting the physical examination		
Abnormal and normal findings are documented in client record		
<b>Include the Following in the Clinical History:</b>		
Relationship status		
Date of last period		
Previous births/abortions		
Previous use of contraceptives		
Previous surgery		
Previous anesthesia		
Blood type		
<b>MVA Procedure</b>		
Explains the procedure to the client		

## IX. Assessment of Provider Clinical Skills/Performance (continued)

Task	Rating	Comments/Recommendations
Makes sure the patient has emptied her bladder before the procedure		
Has the patient or staff wash the perineal area with soap and water		
Treats the client with respect		
Reviews clinical history and revises if necessary		
Determines the type of anesthesia to be given		
Washes hands before the procedure		
Puts on sterile gloves without contaminating them		
Prepares the instrument table correctly		
Prepares all of the equipment necessary for the procedure: – Checks that the MVA syringe holds a vacuum – Charges the syringe by locking the valve in the closed position and pulling back on the plunger until the arms lock		
Performs a bimanual pelvic exam correctly		
Gently inserts the speculum obliquely		
Cleans the cervix and vagina with antiseptic		
Examines the cervix and vaginal wall for tears		
Applies the tenaculum at 10 and 12 o'clock		
Performs a peracervical block if necessary		
Allows time for the anesthesia to take effect		
Dilates the cervix if necessary		
Applies gentle traction to align the cervix		
Gently inserts the cannula until it reaches the fundus and withdraws it slightly		
Carefully attaches the prepared syringe to the cannula		
Releases the pinch valve		

## IX. Assessment of Provider Clinical Skills/Performance (continued)

Task	Rating	Comments/Recommendations
Moves the cannula gently back and forth while rotating the syringe		
Checks the patient for complications during the procedure		
Checks for signs of completion: – Red or pink foam visible in the cannula – No more tissue seen in the cannula – Gritty sensation felt – Uterus contracts around the cannula		
Withdraws the cannula, detaches the syringe, and empties contents into a glass container		
Puts all instruments in decontamination solution and draws solution in and out of syringe and cannula		
Performs bimanual exam to check firmness of the uterus		
Washes hands after the procedure		
Monitors recovery by checking vital signs and checking for bleeding		
<b>D&amp;C Procedure</b>		
Treats patient in a respectful, friendly manner		
Reviews clinical history and revises if necessary		
Gives emotional support and counseling		
Reviews the procedure with the patient		
Washes hands before the procedure		
Puts on sterile gloves correctly		
Makes sure the perineal area is clean and the patient has urinated		
Inserts the speculum correctly		
Disinfects the vagina and cervix		

**IX. Assessment of Provider Clinical Skills/Performance (continued)**

Task	Rating	Comments/Recommendations
Gives sedatives, analgesic, or anesthetic		
If using local anesthetic waits 3–5 min. before beginning		
Carefully applies the tenaculum		
Measures the uterine cavity		
Scrapes carefully		
Inspects material obtained		
Decontaminates equipment		
Washes hands after the procedure		

## Participant Handout 15.3A: Patient Flow for Emergency Postabortion Care

When planning postabortion care services, it is important to know the current case load of postabortion patients and the projected caseload. An efficient system for managing the flow of postabortion patients must be developed. There are many questions to be answered in order to develop an efficient system.

1. What activities must be carried out in each area and in what order?
2. Where does the congestion seem to occur and why?
3. How could the use of space and personnel be modified to both increase the efficiency and better serve the patient?

The best way to answer these questions is to document the patient's hospital experience from the time she enters the hospital until the time of discharge. This documentation helps assess the efficiency of the process that enabled the patient to obtain postabortion care. Reducing patient waiting time not only improves the quality of postabortion care services, but benefits the hospital in terms of time, money, and resources saved.

### Instructions:

1. At registration, identify women seeking postabortion care.
2. Privately explain to the patient that you are evaluating the service provided by the hospital and that you would like to accompany her throughout her visit. Obtain her permission.
3. Using a stop watch that records hours, minutes, and seconds, time and record the exact amount of time spent in each place. This includes arrival time, all waiting times, examinations, pre- and post-procedure preparation, overnight stay, etc.
4. Use the attached form to record time. Include a description of each activity. (See sample form.)
5. Analyze the time spent in each area to see where improvements can be made.

**Recommendations:** Write your analysis, conclusions, and recommendations below.

**Participant Handout 15.3A: Patient Flow for Emergency  
Postabortion Care (continued)**

## Participant Handout 15.3A: Patient Flow for Emergency Postabortion Care (continued)

### SAMPLE REPORT:

**City:** Arequipa, Peru

**Hospital Name:** Hospital Goyeneche

Exact Time	Description of Activity	Time Elapsed At Each Step		
		Hours	Minutes	Seconds
12:00 PM	Patient (Pt) arrives at Emergency Room where she is registered		5	
12:05	Pt goes to obtain ticket		5	
12:10	Pt returns to wait for the physician		20	
12:30	The physician arrives and Pt enters exam room		20	
12:50	Pt leaves exam room and proceeds to be admitted, however, her husband has to go get money	2	40	
3:30	Pt is taken to the hospital facility		5	
3:35	Pt arrives at her floor and she goes to the preparation room—her genital area is shaved		10	
3:45	Pt goes to her assigned bed	2	45	
6:30	Pt is prepared to go to the surgery room		10	
6:45	Pt arrives at the door of the surgery room, waits for previous Pt exit		15	
7:00	Pt enters surgery room		20	
7:20	Pt exits surgery room to return to her assigned floor		5	
7:25 PM	Pt returns to her floor for the night	11	35	
7:00 AM	The attendant cleans the Pt and checks vital signs	1		
8:00 AM	The physician examines the Pt and she is told she is still bleeding and must remain in the hospital	12	30	
8:30 PM	Pt is kept for observation	10	15	
6:45 AM	The attendant cleans Pt	2	15	
9:00 AM	Physician examines Pt and approves Pt for discharge	3		
12:00 PM	Pt is discharged and returns home	-	-	
	<b>END</b>	<b>43 hrs</b>	<b>300 min</b>	
<b>TOTAL TIME:</b>		<b>48 HRS (2 DAYS)</b>		



## Participant Handout 15.3B: Equipment and Supplies Needed For Emergency Postabortion Care

### Equipment and Supplies Needed for MVA

Basic instruments and consumable supplies needed to perform MVA include:

- Bivalve speculum (small, medium, or large).
- Uterine tenaculum or vulsellum forceps.
- Sponge or ring forceps (2).
- 10–20 ml syringe and 22-gauge needle (for paracervical block) and needle extender.
- MVA instruments:
  - MVA vacuum syringes, single or double valve.
  - flexible cannulae of different sizes
  - adapters (if double valve syringe).
  - silicone for lubricating MVA syringe o-ring.
- Swabs/gauze.
- Antiseptic solution (preferably an iodophor such as providone iodine).
- Gloves—sterile or high-level disinfected surgical gloves or new examination gloves.
- Gloves—utility.
- Strainer (for tissue inspection).
- Simple magnifying glass (x 4–6 power) (optional).
- Light source (to see cervix and inspect tissue).
- Clear container or basin (for tissue inspection).

Items that should be on hand but are not required for all MVA procedures:

- Local anesthetic (e.g., 1% lidocaine without epinephrine).
- Curettes, sharp.
- Tapered mechanical dilators (Pratt [metal] or Denniston [plastic]).
- The essential drugs needed for emergency postabortion care that should be available at the primary and referral levels are listed on a separate worksheet.

### Furniture and Equipment

Before beginning the MVA procedure, make sure the treatment room is in working order:

- Examination table with stirrups.
- Strong light (e.g., gooseneck lamp).
- Seat or stool for clinician (optional).
- Plastic buckets for decontamination solution (0.5% chlorine).
- Puncture-proof container for disposal of sharps.
- Leak-proof container for disposal of infectious waste.

## **Participant Handout 15.3B: Equipment and Supplies Needed For Emergency Postabortion Care (continued)**

### **For High-Level Disinfection or Sterilization of Instruments**

These items should be available for processing instruments:

- Nonmetal (plastic) containers.
- Detergent.
- Clean water.
- Chlorine solution (concentrated solution or dry powder).
- High-level disinfectant or sterilization agent (optional).
- Large pot for boiling cannulae (optional).
- Steamer for steaming surgical gloves, cannulae, and surgical instruments.
- Autoclave (steam) or convection oven (dry heat).

### **For Emergency Resuscitation**

These items are seldom required in uterine evacuation cases but are needed for possible emergency use:

- Spirits of ammonia (ampules).
- Atropine.
- IV infusion equipment and fluid (DSW or D/S).
- Ambu bag with oxygen (tank with flowmeter).
- Oral airways.

## **Participant Handout 15.3B: Equipment and Supplies Needed For Emergency Postabortion Care (continued)**

### **Instructions:**

1. Determine the availability of all equipment and supplies listed above.
2. Question staff about how often supplies are used and whether they run out of supplies.

### **Analysis and Recommendations:**

1. Decide which equipment and supplies will need to be purchased for postabortion care and services.
2. Write your recommendations below.

## Participant Handout 15.3C: Essential Drugs For Emergency Postabortion Care

The essential drugs needed for emergency postabortion care are as follows:

### Anesthetics, Local \*\*

Atropine  
Diazepam  
Lidocaine, 1% without epinephrine

### Analgesics

Acetylsalicylic acid  
Ibuprofen  
Pethidine (or suitable substitute)

### Antibiotics

Broad spectrum antibiotics such as:  
Ampicillin  
Benzylpenicillin  
Crystalline penicillin  
Chloramphenicol  
Metronidazole  
Sulfamethoxazole

### Blood Products

Dried human plasma

### Antiseptics

Chlorhexidine, \*\*\* 4% (Hibitane, Hibiscrub)  
Iodine preparations, 1–3%  
Iodophors (Betadine)

### Disinfectants

Sodium hypochlorite 5–10% (liquid bleach)  
Formaldehyde, 8% (Formalin)  
Glutaraldehyde, 2% (Cidex)

### Intravenous Solutions

Water for injections  
Sodium lactate (Ringer's)  
Glucose 5% and 50%  
Glucose with isotonic saline  
Potassium chloride  
Sodium chloride

### Tetanus Toxoid \*\*\*\*

### Oxytocics

Ergometrine injection  
Ergometrine tablets  
Oxytocin injection

\*\* Should be available at all secondary or referral facilities.

\*\*\* Savlon, which contains chlorhexidine, is not listed because the concentration of chlorhexidine varies from country to country from as little as 1% to 4%. Check local products for concentration before using.

\*\*\*\* Anti-D tetanus immunoglobulin (human) or antitoxin, if available, should be provided when indicated.

Adapted from: WHO. 1991. *Essential Obstetric Functions at First Referral Level*. Geneva: WHO.

## **Participant Handout 15.3C: Essential Drugs For Emergency Postabortion Care**

### **Instructions:**

1. Determine the availability of all essential drugs listed on the previous page.
2. Question staff about how often drugs are used and whether they run out of supplies.

### **Analysis and Recommendations:**

1. Decide which drugs will need to be purchased for postabortion care and services.
2. Write your recommendations below.

### Participant Handout 15.4 Action Plan

ACTION REQUIRED	PERSON RESPONSIBLE	DATE PLANNED/ COMPLETED	OBSTACLES

## Participant Handout 15.5: Post-Test

**Instructions: Circle all the answers that apply. Some questions have more than one correct answer.**

1. The return to fertility following a first trimester abortion is:
  - a. 2–3 weeks after the abortion.
  - b. 30 days after the abortion.
  - c. Following the first menstruation after the abortion.
  - d. All of the above.
  - e. None of the above.
  
2. The following aspects must be taken into account to provide information on contraception for postabortion patients:
  - a. Reproductive risk.
  - b. Effectiveness of method.
  - c. Patient preference for a particular method.
  - d. Availability of a wide range of contraceptive options.
  - e. All of the above.
  
3. The family planning counseling process may be described as:
  - a. A one-way communication process in which the provider asks the questions and the client answers them.
  - b. A onetime process in which a client learns everything about the family planning methods.
  - c. A process of interpersonal communication through which emotional support is given to the client to help her make a decision.
  - d. An ongoing communication process that takes place at every health center and family planning service encounter.
  
4. Informed choice means that a family planning client:
  - a. Has been informed about all methods and agrees to use the contraceptive method the provider recommends.
  - b. Has informed the provider about the method s/he wants.
  - c. Has been informed about the side effects of the method s/he has chosen.
  - d. Has the right to choose any method s/he wants (including the right not to choose any method), based on full information about the benefits and risks of all the methods available; and has been counseled on all aspects of the method chosen.
  
5. Which of the following are good examples of *nonverbal communication*?
  - a. Stating instructions clearly
  - b. Looking directly at the patient
  - c. Using simple language
  - d. Making encouraging gestures

6. Which of the following statements related to general anesthesia is true?
  - a. Provides high level of safety and maximum participation of patient
  - b. Increases the risk of complications, lengthens time of recovery, and has negative physiologic effects on the patient
  - c. Produces a minimum of physiologic disorders allowing firm contraction of uterus
  - d. Is followed by a prompt recovery
  
7. Which of the following strategies is/are applicable for pain management during the MVA:
  - a. Showing breathing techniques to the patient to help her relax during the procedure.
  - b. Telling her that the procedure is "simple" and "it won't hurt."
  - c. Explaining that during the procedure she might experience a discomfort similar to a menstrual cramp.
  - d. Telling the patient that you want her to ask for additional pain medication if the pain becomes too strong.
  
8. Which are some of the ways to reduce anxiety in a patient during the MVA procedure?
  - a. Good communication and supportive attitude of the service providers
  - b. Use of sedatives
  - c. Clear explanation of each step of the procedure
  - d. Telling her the procedure won't hurt
  
9. Which are the elements to be considered in the selection of the diameter of the cannula in the treatment of incomplete abortion?
  - a. The age of the patient and the LMP
  - b. The position of the uterus and the degree of cervical dilation
  - c. Sign of infection and the size of the uterus
  - d. The type of anesthesia used and the degree of dilation
  - e. The size of the uterus by bimanual examination and the degree of cervical dilation
  
10. What is the best way to determine the size of the uterus before MVA?
  - a. Examining the cervix
  - b. History of amenorrhea
  - c. Bimanual examination
  - d. Speculum examination
  
11. Which of the following are contra-indications to the use of MVA for treatment of incomplete abortion?
  - a. Uterus over 12 weeks LMP in size
  - b. Urinary tract infection
  - c. Acute cervicitis or pelvic infection, without treatment
  - d. Anemia

12. Which of the following are appropriate High Level Disinfection (HLD) methods for disinfecting MVA cannula?
  - a. Autoclave for 10 minutes
  - b. Soaking in enzymatic soap for 20 minutes
  - c. Soaking in 2% glutaraldehyde (Cidex) for 20 minutes
  - d. Soaking in 0.5% chlorine solution for 20 minutes
  
13. Which of the following is the most appropriate method for sterilizing MVA equipment?
  - a. Soaking in 2% glutaraldehyde (Cidex) for 10 hours
  - b. Soaking in Savlon for 1 hour
  - c. Autoclaving for 1 hour
  - d. Soaking in alcohol 70% for 20 minutes
  
14. A woman comes for treatment of incomplete abortion and on vaginal examination, has an infection. She requests to have an IUD inserted. The service provider should:
  - a. Tell her an IUD is not the method for her.
  - b. Insert the IUD and give her an antibiotic.
  - c. Not insert the IUD, wait for resolution of the infection (3 months), and suggest the use of another method during those 3 months.
  - d. Tell her to return for family planning after her next menstrual period.
  
15. A postabortion patient is experiencing anemia. Which contraceptive method may be the most appropriate for her?
  - a. IUD
  - b. Minilaparotomy
  - c. Combined oral contraceptives
  - d. A Norplant implant
  
16. Which of the following are signs that the MVA procedure is complete?
  - a. Walls of the uterus feel smooth
  - b. Walls of the uterus feel gritty
  - c. Uterus contracts around the cannula
  - d. The cervix relaxes
  
17. Which of the following statements are true about the use of a local anesthetic (paracervical block) when performing a MVA procedure?
  - a. The paracervical block reduces the pain from dilating the os.
  - b. Local anesthesia can stop the pain completely.
  - c. The best local anesthetic to use is 1% lidocaine without epinephrine.
  - d. The local anesthetic stops the pain caused by uterine contractions related to the emptying of the uterus.

18. When MVA is used for treatment of incomplete abortion, women are likely to feel pain from:
- a. Headache.
  - b. Cervical movement/manipulation.
  - c. Leg cramps.
  - d. Uterine cramps.
19. What is the best way to determine uterine size?
- a. Looking at the cervix
  - b. Palpating the abdomen
  - c. Bimanual examination
  - d. Calculating the LMP (Last Menstrual Period)
20. Which of the following are signs of infection following an unsafe abortion?
- a. High blood pressure
  - b. Foul-smelling vaginal discharge
  - c. Chills, fever, sweats
  - d. Severe bleeding

**Instructions: Read the statements below and place a mark in the true or false space provided.**

21. In the presence of infection, the MVA procedure should be done under antibiotic cover. ( ) True ( ) False
22. During the MVA procedure, counseling reduces anxiety and therefore lessens pain. ( ) True ( ) False
23. The following are elements, which should be incorporated into each counseling session: privacy, confidentiality, and technical jargon. ( ) True ( ) False

During the counseling/orientation process the service provider must:

24. Insist that the client express her feelings. ( ) True ( ) False
25. Inquire about reproductive and family planning history. ( ) True ( ) False
26. Offer information about what to expect during and after the MVA procedure. ( ) True ( ) False
27. Show a preference for a particular method. ( ) True ( ) False
28. If the cervix is open, you do not need to do a paracervical block. ( ) True ( ) False

## Participant Handout 15.6: Comprehensive FP/RH Curriculum Participant Evaluation

### Module 11: MVA for Treatment of Incomplete Abortion

- 5 = Strongly agree**
- 4 = Agree**
- 3 = Neither agree nor disagree**
- 2 = Disagree**
- 1 = Strongly disagree**

#### OVERVIEW

- The objectives of the module were clearly defined. 5 4 3 2 1
- The material presented was new to me. 5 4 3 2 1
- The trainer understood the material being presented. 5 4 3 2 1
- The material was presented clearly and in an organized fashion. 5 4 3 2 1
- The time spent on this module was sufficient. 5 4 3 2 1
- Time for discussion and questions was sufficient. 5 4 3 2 1
- The material in this module has provided me with sufficient information to safely perform MVA for treatment of incomplete abortion. 5 4 3 2 1
- The module has helped me develop the skills to counsel women during the treatment of incomplete abortion. 5 4 3 2 1

#### MEETING CONDITIONS/LOCATIONS

- The training was held on a convenient day and time. 5 4 3 2 1
- Necessary supplies were available. 5 4 3 2 1
- The interval between the meetings was appropriate. 5 4 3 2 1

#### TRAINING METHODS AND MATERIALS

- The trainers' presentations were useful. 5 4 3 2 1
- Case studies were useful. 5 4 3 2 1
- Class discussion was helpful. 5 4 3 2 1
- Required reading was useful. 5 4 3 2 1

## Participant Handout 15.6: Comprehensive FP/RH Curriculum Participant Evaluation (continued)

- |   |           |
|---|-----------|
| • MVA Competency Based Skills Checklists were useful. | 5 4 3 2 1 |
| • The Action Planning Worksheets were useful.         | 5 4 3 2 1 |
| • The clinic assessment tool was useful.              | 5 4 3 2 1 |
| • The module lesson plan was useful.                  | 5 4 3 2 1 |

What was the most useful aspect of this module? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

What was the least useful aspect of this module? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

### SUGGESTIONS

What suggestions do you have to improve the module? Feel free to make references to points above.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## Participant Handout 16.1: Competency Based Training (CBT) Skills Assessment Checklists

Date of Assessment \_\_\_\_\_ Dates of Training \_\_\_\_\_

Place of Assessment: Clinic \_\_\_\_\_ Classroom \_\_\_\_\_

Name of Clinic Site \_\_\_\_\_

Name of the Service Provider \_\_\_\_\_

Name of the Assessor \_\_\_\_\_

This assessment tool contains the detailed steps that a service provider should accomplish in performing a general physical examination and pelvic examination for a woman presenting with symptoms of an incomplete abortion. The checklist may be used during training to monitor the progress of the trainee as s/he acquires the new skills and during the clinical phase of training to determine whether the trainee has reached a level of competence in performing the skills. The checklist may also be used by the trainer or supervisor when following up or monitoring the trainee. The trainee should always receive a copy of the assessment checklist so that s/he may know what is expected of her/him.

### Instructions for the Assessor

1. Always explain to the client what you are doing before beginning the assessment. Ask for the client's permission to observe.
2. Begin the assessment when the trainee greets the client.
3. Use the following rating scale:
  - 2 = Done according to standards
  - 1 = Needs improvement
  - N/O = Not observed
4. Continue assessing the trainee throughout the time s/he is with the client, using the rating scale.
5. Only observe. Do not interfere unless the trainee misses a critical step or compromises the safety of the client.
6. Fill in the form using the rating numbers. Write specific comments when the task is not performed according to standards.
7. Use the same form for one trainee for at least 3 observations.
8. When you have completed the observation, review the results with the trainee. Do this in private, away from the client or other trainees.

## Participant Handout 16.2: Counseling and Communication

TASK/ACTIVITY	CASES			COMMENTS
	1	2	3	
<b>Provider's Non-Verbal Behavior</b>				
• Friendly and welcoming?				
• Smiles and nods at patient?				
• Non-judgmental/receptive?				
• Listens attentively? Nods head to encourage and acknowledge client's responses?				
• Leans towards the patient?				
• Makes eye contact in a culturally appropriate manner?				
• Has a relaxed and friendly manner?				
• Appears rushed or impatient?				
<b>Provider's Verbal Communication</b>				
• Phrases questions clearly and appropriately? Uses non-technical terms?				
• Listens closely to patient's responses?				
• Responds to the patient's non-verbal communication?				
• Answers patient's questions?				
• Provides encouragement?				
• Uses paraphrasing?				
• Uses language the patient can understand?				
• Summarizes and ensures a common understanding of the discussion?				
<b>Providing Information</b>				
• Provides reassurance to the patient about her physical condition?				
• Answers patient's questions about her physical condition?				
• Explains how the pelvic examination will be done?				

**Participant Handout 16.2: Counseling and Communication (continued)**

TASK/ACTIVITY	CASES			COMMENTS
	1	2	3	
• Encourages relaxation as the speculum is inserted?				
• Explains the details of the MVA procedure?				
• Informs patient of possible major and minor complications?				
• Explain the results of examinations and tests in simple language?				
<b>Providing verbal anesthesia—help in controlling pain</b>				
• Explains to the woman what she may feel?				
• Encourages the woman to relax her abdominal muscles by inhaling deeply and exhaling slowly and demonstrates how this will be done?				
• Explains the effect of any pain control medications given?				
• Talks calmly and reassuringly to the patient during the MVA procedure, explaining what is happening?				
<b>Providing information on postabortion care, signs of normal recovery, and symptoms of a complication</b>				
• Explains warning signs of possible complications?				
• Instructs patient not to put anything in her vagina because it could cause an infection and to use sanitary pads or clean rags?				
• Instructs patient not to have sex until 3 days after bleeding stops?				
• Instructs patient to get plenty of rest and eat iron and protein-rich foods to assist recovery?				
• Makes arrangements for post-procedure follow-up?				

### Participant Handout 16.2: Counseling and Communication (continued)

TASK/ACTIVITY	CASES			COMMENTS
	1	2	3	
<ul style="list-style-type: none"> <li>Reassures the patient about the prompt return of fertility—fertility may return even before the woman's next period?</li> </ul>				
<b>Providing Information on postabortion contraception</b>				
<ul style="list-style-type: none"> <li>Asks about the patient's individual needs, situation, and preferences?</li> </ul>				
<ul style="list-style-type: none"> <li>Provides essential information about postabortion contraception?</li> </ul>				
<ul style="list-style-type: none"> <li>Provides information about where to obtain contraceptive methods?</li> </ul>				
<ul style="list-style-type: none"> <li>Helps the patient make an informed choice of an FP method?</li> </ul>				
<ul style="list-style-type: none"> <li>Provides the woman's chosen method unless medically inappropriate?</li> </ul>				
<ul style="list-style-type: none"> <li>Provides clear instructions about how to use the method?</li> </ul>				
<ul style="list-style-type: none"> <li>Provides information about possible side effects and complications?</li> </ul>				
<ul style="list-style-type: none"> <li>Plans for a follow-up visit?</li> </ul>				

Comments:

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## Participant Handout 16.3: Taking the Medical History

TASK/ACTIVITY	CASES			COMMENTS
	1	2	3	
Explains the purpose of the medical history?				
Ask about and record the following information:				
• When was the first day of her last menstrual period?				
• What method of contraception is she using?				
• Bleeding: How long has she been bleeding? How much blood has she lost?				
• Has she passed any tissue from her vagina?				
• Does she feel dizzy or faint?				
• Does she have fever, or chills, or malaise?				
• Cramping: How long? How severe? Both sides or one side of the pelvis?				
• Other pain? Abdominal pain? Shoulder pain (may be signs of intra-abdominal injury)?				
• Tetanus vaccination status or possibility of exposure to tetanus?				
• Allergies to drugs (antibiotics or anesthetics)?				
• Has she taken any drugs or herbs?				
• Does she have any medical conditions (such as bleeding disorders or RTIs)?				

Comments:

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## Participant Handout 16.4: Performing the Physical Examination

TASK/ACTIVITY	CASES			COMMENTS
	1	2	3	
<b>General Physical Examination</b>				
• Checks and records vital signs (temp., pulse, respirations and BP)?				
• Notes general health (anemic, malnourished, etc.)?				
• Examines lungs, heart, extremities?				
• Examines abdomen for bowel sounds, distension, rigidity, rebound tenderness, abdominal masses, and location and severity of pain?				
• Checks Rh status (when possible to do so and to give Rhogam)?				
<b>Pelvic Examination</b>				
• Asks woman to empty her bladder?				
• Positions woman comfortably on the table?				
• Drapes the patient to protect privacy?				
• Speaks kindly to her throughout the procedure?				
• Washes hands and puts on gloves before the examination?				
<b>Speculum Examination</b>				
• Checks the perineum for lacerations and bleeding?				
• Gently inserts closed speculum obliquely into the vagina, rotates it to the transverse, and opens it?				
• Gently removes any visible POC and any foreign objects?				
• Checks for signs of infection?				
• Inspects cervix for bleeding or lacerations?				
• Gently removes speculum?				

### Participant Handout 16.4: Physical Examination (continued)

TASK/ACTIVITY	CASES			COMMENTS
	1	2	3	
<ul style="list-style-type: none"> <li>Places speculum in decontamination solution?</li> </ul>				
<b>Bimanual Examination</b>				
<ul style="list-style-type: none"> <li>Gently inserts two fingers of one hand into the vagina while palpating the abdomen with the other hand?</li> </ul>				
<ul style="list-style-type: none"> <li>Estimates the size and position of the uterus and compares it to the LMP?</li> </ul>				
<ul style="list-style-type: none"> <li>Checks for pelvic mass and pain, notes severity and location of pain?</li> </ul>				
<ul style="list-style-type: none"> <li>Gently withdraws fingers?</li> </ul>				
<ul style="list-style-type: none"> <li>Disposes of gloves or places used gloves in decontamination solution?</li> </ul>				
<ul style="list-style-type: none"> <li>Explains to the patient what will be done next?</li> </ul>				

Comments:

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## Participant Handout 16.5: Infection Prevention

TASK/ACTIVITY	CASES			COMMENTS
	1	2	3	
<b>Personal Infection Prevention Practices</b>				
• Washes hands before and after each procedure?				
• Air dries hands following handwashing or dries them only with an unused, dry portion of a clean towel?				
• Puts on sterile gloves without contaminating them?				
<b>Use of Antiseptics</b>				
• Asks the patient about allergies before selecting an antiseptic?				
• If visibly soiled, cleans the patient's perineum with soap and water before applying antiseptic?				
• After inserting the speculum applies the antiseptic liberally to the vagina and cervix?				
<b>Instrument Processing</b>				
<b>Decontamination</b>				
• Puts on utility gloves or leaves on surgical gloves post-procedure?				
• Empties the content of the syringe into a strainer or waste container before decontamination?				
• Places all instruments in chlorine solution for 10 minutes immediately after completing the procedure?				
• Draws the solution through the syringe and cannula?				
• Disposes of needles in a puncture-proof container?				
• Decontaminates exam or table or other surfaces contaminated during the procedure by wiping them with 0.5% chlorine solution?				

## Participant Handout 16.5: Infection Prevention (continued)

TASK/ACTIVITY	CASES			COMMENTS
	1	2	3	
<ul style="list-style-type: none"> <li>Removes instruments/gloves from chlorine solution after 10 minutes and places them in water?</li> </ul>				
<ul style="list-style-type: none"> <li>Removes reusable gloves by inverting and soaking in 0.5% chlorine solution for 10 minutes? (If wearing utility gloves, does not remove until instrument cleaning is finished.)</li> </ul>				
<b>Cleaning (Instruments)</b>				
<ul style="list-style-type: none"> <li>Places instruments in a basin with clean water and mild, non-abrasive detergent?</li> </ul>				
<ul style="list-style-type: none"> <li>Completely disassembles syringe and other instruments and/or opens jaws of jointed items?</li> </ul>				
<ul style="list-style-type: none"> <li>Washes all instrument surfaces with a brush or cloth until visibly clean (holds instruments under water while cleaning)?</li> </ul>				
<ul style="list-style-type: none"> <li>Thoroughly cleans serrated edges (e.g., jaws of hemostat) of instruments, using small brush?</li> </ul>				
<ul style="list-style-type: none"> <li>Rinses all surfaces thoroughly with clean water?</li> </ul>				
<ul style="list-style-type: none"> <li>Towel-dries instruments or allows them to air dry?</li> </ul>				
<ul style="list-style-type: none"> <li>Reassembles syringe?</li> </ul>				
<b>High-Level Disinfection (HLD)</b>				
<b>Boiling of Cannula</b>				
<ul style="list-style-type: none"> <li>Places cannula in boiling water, brings to a boil again, and boils for 20 minutes?</li> </ul>				
<ul style="list-style-type: none"> <li>Removes cannula gently with HLD forceps?</li> </ul>				
<ul style="list-style-type: none"> <li>Air dries on a disinfected surface?</li> </ul>				
<b>Chemical HLD for Cannula and/or Syringe</b>				
<ul style="list-style-type: none"> <li>Mixes solution correctly?</li> </ul>				

## Participant Handout 16.5: Infection Prevention (continued)

TASK/ACTIVITY	CASES			COMMENTS
	1	2	3	
• Submerges items in a chemical solution for 20 minutes?				
• Removes items with HLD forceps and rinses with boiled water?				
• Lets items air dry?				
• Stores HLD equipment in a HLD container for up to one week?				
<b>Sterilizing Cannula and Syringe</b>				
• Prepares fresh solution of chemical sterilizant or checks to be sure solution is not out of date?				
• Immerses cleaned and dried items in 2% glutaraldehyde or 8% formaldehyde solution, completely covering all items?				
• Covers container and soaks for appropriate time (10 hours for glutaraldehyde or 24 hours for formaldehyde)?				
• Removes items from the chemical solution using sterile gloves or a sterile forceps or pickups?				
• Rinses items thoroughly with <b>sterile</b> water to remove <b>all</b> traces of chemical sterilizant?				
• Stores items in a sterile, covered container?				

Comments:

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## Participant Handout 16.6: Pain Management

TASK/ACTIVITY	CASES			COMMENTS
	1	2	3	
<b>Providing Verbal Anesthesia</b>				
• Explains each step of the procedure <b>before</b> it is performed?				
• Waits a few seconds after performing each step to give the patient time to prepare for the next step?				
• Moves slowly, without jerky or quick motions?				
• Avoids saying things like "This won't hurt" when they are not true?				
<b>Administering the Paracervical Block</b>				
• Decides on pain control measures that are appropriate, given the patient's condition?				
• Asks the patient about any drug allergies?				
• Explains to the patient what she will feel and what to expect?				
• Fills a 10cc syringe with lidocaine?				
• Aspirates before <b>each</b> injection?				
• Injects 1 ml before placing tenaculum?				
• Injects 2–3 ml at 3, 5, 7, and 9 o'clock at the junction of the cervix and vagina?				
• Waits 2–4 minutes for it to take effect?				
• Talks calmly and reassuringly to the patient throughout the procedure?				

Comments:

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## Participant Handout 16.7: Performing the MVA Procedure

TASK/ACTIVITY	CASES			COMMENTS
	1	2	3	
<b>Before the MVA procedure the trainee has:</b>				
• Revised and completed the clinical history?				
• Treated and stabilized any complications?				
• Evaluated the type of anesthesia, sedation, or analgesia necessary for the patient?				
• Prepared all equipment necessary for the procedures?				
• Made sure the patient emptied her bladder?				
• Placed the woman on a gynecological table with her feet in stirrups?				
• Made sure the vulvoperineal area had been cleaned with soap and water?				
<b>Steps to performing the MVA procedure</b>				
• Prepares instruments so the "no touch" instruments were separated from other instruments?				
• Explains the MVA procedure to the patient?				
• Gently inserts the speculum in an oblique direction?				
• Cleans the cervix and vagina with antiseptic solution?				
• Places a tenaculum at 10 and 12 o'clock on the cervix?				
• Performs a paracervical block?				
• Allows anesthesia to take effect?				
• Dilates the cervix, if necessary?				
• Gently inserts the cannula through the cervix into the uterine cavity?				
• Gently applies traction to straighten the uterine axis?				

## Participant Handout 16.7: Performing the MVA Procedure (continued)

TASK/ACTIVITY	CASES			COMMENTS
	1	2	3	
<ul style="list-style-type: none"> <li>Pushes the cannula slowly into the uterus until it touches the fundus and withdraws it slightly?</li> </ul>				
<ul style="list-style-type: none"> <li>Carefully attaches the prepared syringe?</li> </ul>				
<ul style="list-style-type: none"> <li>Releases the pinch valve(s)?</li> </ul>				
<ul style="list-style-type: none"> <li>Evacuates the contents of the uterus by moving the cannula gently and slowly back and forth within the uterine cavity?</li> </ul>				
<ul style="list-style-type: none"> <li>Checks for signs of completion: <ul style="list-style-type: none"> <li>Red or pink foam visible in cannula?</li> <li>No more tissue seen in cannula?</li> <li>Gritty sensation felt as cannula passes over the surface of the evacuated uterus?</li> <li>Uterus contracts around (grips) the cannula?</li> </ul> </li> </ul>				
<ul style="list-style-type: none"> <li>Withdraws cannula, detaches syringe, and removes all instruments?</li> </ul>				
<ul style="list-style-type: none"> <li>Empties tissue and blood from the syringe into a glass receptacle?</li> </ul>				
<ul style="list-style-type: none"> <li>Places all instruments into decontamination solution?</li> </ul>				
<ul style="list-style-type: none"> <li>Strains and rinses the aspirated tissue, places it into a clear container of clean water, and conducts a visual examination?</li> </ul>				
<ul style="list-style-type: none"> <li>Monitors recovery (bleeding, cramping, vital signs)?</li> </ul>				
<ul style="list-style-type: none"> <li>Before the patient leaves, provides information about family planning options, signs of normal recovery, and symptoms requiring emergency care?</li> </ul>				

Comments:

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# **CONTENT**



## **Specific Objective #1: Explain the impact of unsafe abortion on maternal mortality and morbidity**

### **OVERVIEW**

This module can be used to train health workers to prevent death and serious injury from abortion complications. Abortion complications are responsible for approximately 13% of the 600,000 maternal deaths that occur globally each year.

WHO estimates that unsafe abortions kill about 70,000 women annually. Each hour, 8 women die from unsafe abortions. For every woman who dies from an unsafe abortion, many more suffer serious injuries and permanent disabilities. In some countries as many as 50% of the pregnancy-related deaths are caused by abortion.

The complications from unsafe abortion that lead to morbidity and mortality include sepsis and hemorrhage.

In this region it is estimated that \_\_\_\_\_ unsafe abortions occur each year. The estimated number of deaths that occur each year due to unsafe abortion in this region are \_\_\_\_\_. The mortality ratio (deaths due to unsafe abortion per 100,000 live births) is \_\_\_\_\_ in this region. The percent of maternal deaths due to unsafe abortion in this region is \_\_\_\_\_.

These abortion-related deaths can be prevented by the rapid response of technically competent, sensitive providers.

Abortion related complications can be prevented by:

1. Improving patient and community knowledge about family planning.
2. Strengthening family planning and reproductive health services.
3. Providing access to emergency contraception.
4. Providing postabortion care for incomplete and septic abortions.
5. Making abortions legal, safe, and accessible.

Manual Vacuum Aspiration (MVA) is one technology for the treatment of incomplete abortion.

## **Specific Objective #2: Identify unwanted pregnancy as a major cause of unsafe abortion**

Unwanted pregnancy is the most frequent cause of unsafe abortion. This is especially true for single women and for adolescents. In this country, x% or x# of pregnancies are unwanted.

Unplanned and unwanted pregnancies have major implications for individuals and for society.

For the woman, these include:

- Frequent periods of absentism from work, possibly leading to unemployment.
- Being unable to continue her education.
- Taking on new or additional responsibilities.
- Possibly losing her partner.
- Embarrassment and shame in her family.
- Social discrimination.
- Compromising her future.

For the male partner, these include:

- Taking on responsibilities for which he may not be prepared.
- Being unable to pursue his education.
- Compromising his future.

For an adolescent, these include:

- Being forced to drop out of school.
- Losing an opportunity for a career.
- Possibly not being able to marry.
- Social discrimination.

## Specific Objective #2

For the family, these include:

- Compromising the well-being of other children.
- Economic difficulties.
- Family conflict.

There are several possible outcomes of unwanted pregnancies:

- As the pregnancy continues, feelings change and the pregnancy becomes wanted.
- The pregnancy continues, but does not become wanted.
- The unwanted child is given up for adoption.
- Abortion. In many places, 50% of unwanted pregnancies result in abortion.

## **Specific Objective #3: Demonstrate sensitivity throughout the postabortion care process**

### **DEMONSTRATING SENSITIVITY AND EMPATHY WHILE PROVIDING POSTABORTION CARE**

When a woman comes to a facility for treatment of an incomplete abortion, she has contact with many people, not just the health care worker treating her. She may encounter many different types of auxiliary staff as well as other patients in the waiting room. Remaining aware that these women are often under severe emotional stress in addition to physical discomfort, health care providers must serve as role models for other staff and patients in the facility. Every woman should be treated as you would want yourself or your daughter treated in the same situation.

### **PATIENT RIGHTS**

All women coming to health care facilities for treatment of incomplete or septic abortion have the right to emergency care and high-quality care. High-quality care includes:

**The right to treatment**, regardless of a woman's age, ethnic origin, socioeconomic status, religion, marital status, family size, sexual behavior, political beliefs, or the cause of the abortion.

**The right to information** about her condition given in a supportive, confidential, and non-judgmental manner. Information should be given to a woman about her physical condition, the results of examinations and laboratory tests, risks and benefits of procedures, any need for referral or transportation, and information on how to prevent future unwanted pregnancies.

**The right to discuss** concerns and her condition in an environment in which she feels safe. She should be fully informed about procedures and medications before giving consent for treatment.

**The right to privacy** should be respected during physical examination and counseling. Privacy means both auditory and visual privacy, as well as the confidentiality of any information given to the provider.

**The right to decide freely** whether or not to receive treatment or disclose information.

**The right to express her views** about the service she receives including her opinions about the quality of services and what can be done to improve services.

### **Specific Objective #3**

Every member of the health care team can contribute to the quality of care women receive by:

- Encouraging open communication.
- Ensuring patient confidentiality.
- Protecting patient privacy.
- Practicing fairness and equal treatment.
- Maintaining respectful, non-judgemental patient-provider interactions.

It is important that every staff member be committed to the principle that women who come to the hospital or clinic for treatment of incomplete or septic abortion are entitled to the best medical care and services that are safe, humane, and supportive.

## **Specific Objective #4: Explain counseling procedures, skills, and attitudes appropriate for MVA services**

### **DEMONSTRATING SENSITIVITY**

Health care providers must be sensitive to the woman presenting with incomplete abortion who may be experiencing:

- Feelings of shame.
- Feelings of fear (of losing her baby; of being found out by parents, husband, relatives, community members, or law enforcement; of disapproval and poor treatment by health care providers; or even of loss of her life).
- Apprehension about how she will be judged and treated by providers.

Attitudes of caregivers can impact the woman experiencing incomplete abortion and the quality of care provided to her by:

- Bringing her through this experience safely and with her self-esteem intact.
- Counseling her on contraceptive options so that she will be less likely to ever need an unsafe abortion again.

Our behavior often reflects our attitudes, feelings, and values, even when we don't realize it. Becoming aware of our own attitudes often helps us alter our behavior. The goal of this unit is to help us modify our behavior to maintain a respectful, non-judgmental, and supportive relationship with the patient for maximum benefit and best possible outcome for the patient.

### **INTERPERSONAL COMMUNICATION**

Interpersonal communication is the face-to-face, two-way process of transmitting information and understanding between two people.

Face-to-face communication takes place in two forms, **verbal and nonverbal**, and is both conscious and unconscious, intentional and unintentional.

#### **Types of Interpersonal Communication**

##### *Verbal Communication:*

- Refers to words and their meaning.

## Specific Objective #4

- Begins and ends with what we say.
- Is largely conscious and can be controlled by the individual speaking.

### *Nonverbal Communication:*

- Refers to actions, gestures, behaviors, and facial expressions that express how we feel without speaking.
- Is complex and largely unconscious.
- Often reveals a person's real feelings.

While **verbal** communication is restricted to hearing, **nonverbal** communication can involve all of our senses.

Some examples of nonverbal communication include: body posture, eye contact, physical appearance, the use of inanimate objects (like desks and chairs), the use of space (nearness and distance), and the use of time (how little or how much time is spent attending to a person's needs).

## Barriers to Effective Interpersonal Communication

**Time:** Provider has little time to establish a trusting relationship with a client, and the client spends too much time waiting for her visit.

**Knowledge:** Providers can't communicate effectively if they don't understand clients or their reasons for resorting to an unsafe abortion.

**Attitude:** Provider may have a negative or judgmental attitude toward women coming for postabortion care.

**Privacy:** The clinic setting may not facilitate visual or auditory privacy.

**Pain:** The patient may be in physical pain and have difficulty listening.

**Emotions:** The patient may have strong emotions such as fear, anxiety, or anger that make it difficult for her to listen.

**Religion and Culture:** Sometimes religious and cultural backgrounds may interfere with communication.

**Sex/Gender:** Women coming for postabortion care may prefer to communicate with a provider of the same sex, especially on sensitive issues.

## Specific Objective #4

**Language:** Technical language is difficult for most women to understand. It is important to speak in words women can understand.

### COUNSELING

Counseling is the face-to-face, personal, confidential communication in which one person helps another to make decisions and then to act on them.

Counseling during the management of incomplete abortion is essential—it is the key to positive physical and emotional health outcomes. Women in crisis need both support and information. Counseling should not only educate and inform the patient, but also help strengthen her personal self-esteem. It should help her understand her situation and perhaps, how best to resolve her problem. Counseling must be compassionate, empathetic, and nonjudgmental. Privacy and confidentiality must be assured.

### Providing Information and Support

During postabortion care, the provider is expected to offer the woman the following information and support:

#### *Information about her physical condition*

- Provides reassurance about her physical condition.
- Answers questions about her physical condition.

#### *Information about what is being done to her during procedures and examinations*

- Explains how the pelvic examination will be done—that the staff will clean the external vagina with a solution to help prevent infection and that a speculum will be inserted gently into her vagina.
  - Explains who will be present and who will do the procedure.
  - Explains what is happening during each step of the procedure.
- Encourages relaxation as the speculum is inserted.
- Provides details of the MVA procedure.
  - Explains that the woman will have to urinate before the procedure.
  - Explains where the procedure will take place.

## Specific Objective #4

- Informs patient of possible major and minor complications.

### *The results of physical examinations and tests*

- Explains the results of examinations and tests in simple language.

### *Verbal anesthesia or help in controlling pain*

- Explains to the woman what she will feel.
- Encourages the woman to relax her abdominal muscles by inhaling deeply and exhaling slowly, and demonstrates this breathing technique.
- Explains the effect of any pain control medications given.
- Talks calmly and reassuringly to the patient during the MVA procedure, explaining what is happening.

### *Information on postabortion care, signs of normal recovery, and symptoms of a complication*

- Explains warning signs of possible complications: fever, bleeding for more than 2 weeks, foul-smelling discharge from the vagina, menses heavier than normal, strong abdominal pains, chills, fainting (dizziness, weakness), and vomiting or feeling nauseous. (If any of these symptoms are present, the patient should return to the hospital or clinic immediately.)
- Instructs the patient not to put anything in her vagina because it could cause an infection and to use sanitary pads or clean rags.
- Instructs the patient not to have sex until 3 days after bleeding stops.
- Instructs the patient to get plenty of rest and eat iron and protein-rich foods to assist recovery.
- Makes arrangements for post-procedure follow-up.
- Advises the patient about the prompt return of fertility. (Fertility may return even before the woman's next period.)

### *Information on postabortion contraception*

- Explains availability of safe and effective contraceptive methods.

## Specific Objective #4

- Explains where to obtain contraceptive methods, ideally given at the time of postabortion care.

### ACTIVE LISTENING

Active listening is more than just hearing what the patient says. It is listening in a way that communicates empathy, understanding, and interest.

#### Demonstrating Active Listening

- Listen carefully to the woman (rather than thinking of what you are going to say next).
- Acknowledge the patient's feelings and concerns.
- Maintain good eye contact.
- Avoid fidgeting.
- Keep silent long enough to give the woman a chance to ask questions, and respect the patient's silences.
- Don't rush the patient; move at her speed.
- Give the patient your full attention.
- Encourage the woman's questions, and give clear answers.
- Ask the same question in different ways if you think the patient has not understood.
- Avoid asking questions that begin with the word "why," which may sound judgmental.
- Provide essential postabortion contraception information.

### PARAPHRASING

Paraphrasing is restating what the patient says in simple words to make sure you have understood what the patient means. This supports the patient and encourages her to continue speaking.

## **Specific Objective #4**

### **Demonstrating Paraphrasing**

- Listen for the patient's basic message.
- Restate to the patient a simple summary of what you believe is her basic message.
- Don't add any new ideas.
- Observe the patient for cues, or ask for a response from the patient that lets you know that you have paraphrased her message accurately.
- Don't restate negative statements the patient may have made about herself in a way that confirms her perception. For example, if the patient says "I feel that I did a bad thing by having an abortion," it is not appropriate to say "Your abortion was wrong."

### **USING SIMPLE LANGUAGE**

Medical terminology is not appropriate to use with patients. Patients may be intimidated or confused by language they don't understand. Simple language prevents misunderstanding and encourages patients to ask questions.

### **Demonstrating Using Simple Language**

- Use simple language that the patient won't find embarrassing or vulgar.
- Use short sentences and words the patient understands.
- Avoid medical terms for parts of the body like fallopian tubes, gravid uterus, or pubic symphysis.
- Avoid medical terms for the procedures being carried out on the patient such as paracervical block, manual vacuum aspiration, or cervical dilation.
- Avoid medical terms for describing symptoms such as conjunctival pallor, hypotension, or vasovagal reaction.
- Don't ridicule the use of more commonly understood terms.

## Specific Objective #4

### ASKING OPEN-ENDED QUESTIONS

An open-ended question is one that begins with *who*, *what*, *where*, *when*, *why*, or *how*. Questions that begin with these words encourage patients to give a more complete and meaningful response than questions that require only a "yes" or "no" answer.

#### Demonstrating Asking Open-Ended Questions

- Asking a question such as "How do you feel about having this procedure today?" will usually elicit more useful information than "Are you feeling ok about having this procedure?"
- Ask questions that begin with *how* or *what*. These are usually easy to answer. Questions that begin with *why* may put people on the defensive.
- After you ask a question, be patient and wait for the answer.

### CLARIFYING

Clarifying is another way of making sure you understood what the patient is saying. The provider restates the patient's message the way s/he understands it and asks the patient if that is what she meant.

#### Demonstrating Clarifying

- Admit that you don't have a clear understanding of what the patient is telling you.
- Restate her message as you understand it, asking if your interpretation is correct.
- Ask questions beginning with phrases like "Do you mean that . . ." or "Are you saying. . ."
- Don't make the patient feel like she has been cut off or that she doesn't communicate well.

## **Specific Objective #5: Explain the steps needed to assess the condition of a woman presenting with symptoms of an incomplete abortion**

### **SYMPTOMS OF ABORTION**

If you see a woman of reproductive age with **any** of the following three symptoms, consider the possibility that she may have an incomplete abortion or complications of an abortion:

- Vaginal bleeding
- Cramping and/or lower abdominal pain
- Amenorrhea (no menses for over one month)

Remember, due to social and legal conditions in some countries, a woman may not be able to tell you if she has attempted to abort a pregnancy herself or obtain an unsafe abortion.

### **STEPS TO ASSESSMENT**

The first step to assessing the condition of a woman with **any** of the symptoms of incomplete abortion is to look for signs of shock:

- Fast, weak pulse (rate 100 per minute or faster)
- Low blood pressure (hypotension)
- Pallor of the skin around the mouth or palms
- Pale conjunctiva (inner eyelids)
- Rapid respirations (30 per minute or greater)
- Anxiety, confusion, or loss of consciousness

Always consider shock, look for signs of shock, and treat shock immediately. If shock is not present, it may develop later.

For all women with the symptoms of abortion, complete the following **Clinical Assessment**:

#### **History**

Explain to the patient the purpose of the medical history. Ask the following questions and record the following patients answers.

- When was the first day of her last menstrual period?

## Specific Objective #5

- What method of contraception is she using? How does she use the method? Assess whether she is using the method correctly and if it is a possible method failure.
- Bleeding: How long has she been bleeding? How much blood has she lost?
- Has she passed any clots or tissue from her vagina?
- Does she feel dizzy or faint?
- Does she have fever, chills, or malaise?
- Cramping: How long? How severe? Both sides or one side of the pelvis?
- Other pain? Abdominal pain? Shoulder pain? (May be signs of intra-abdominal injury or ectopic pregnancy).
- Tetanus vaccination status or possibility of exposure to tetanus?
- Allergies to drugs (antibiotics or anesthetics)?
- Has she taken any drugs or herbs?
- Does she have any medical conditions such as a bleeding disorder or a (RTI) Reproductive Tract Infection?

While taking the patient's history, speak to her kindly and try to help her remember what has happened to her. This will help you to assess her emotional state.

## General Physical Exam

- Check and record vital signs (temperature, pulse, respirations, blood pressure).
- Note the general health of the woman (anemic, malnourished, or general signs of ill health).
- Examine lungs, heart, and extremities.
- Examine the abdomen: Check bowel sounds, then check to see if the abdomen is distended or rigid (tense and hard), if there is rebound tenderness, and if there are abdominal masses. Determine presence, location(s), and severity of pain.
- If possible, check the patient's Rh status, and if she is Rh (-), give her a dose of anti-D globulin within 48 hours of possible abortion.

## Specific Objective #5

### Pelvic Examination

The pelvic exam will be both a bimanual exam and a speculum exam. The purpose of the pelvic examination is to assess the size, consistency, and position of the uterus, to check for tenderness, and to determine if the cervix is dilated.

- Ask the woman to empty her bladder.
- Position the woman on an examination table with her feet in stirrups.
- Drape the patient to protect her privacy.
- Speak kindly to her throughout the procedure to help her relax.
- Wash your hands before putting on sterile or high level disinfected (HLD) gloves.

### Speculum Exam

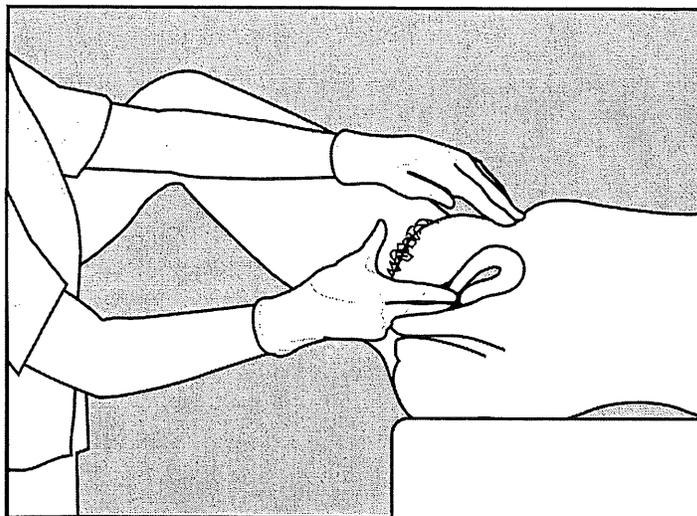
- Before inserting the speculum, inspect the perineal area for lacerations and to determine the amount of bleeding (if any).
- Gently insert a closed speculum, and then open it to expose the cervix. Avoid pressure on the urethra while inserting the speculum.
- Gently remove any visible products of conception from the vaginal canal or cervical os with a ring forceps or vulsellum forceps. Place the tissue in a receptacle to inspect with the evacuated uterine contents.
- There may also be foreign objects in the vagina or cervical os from illegal abortion. If so, gently remove these.
- Note if there is a foul odor (to check for infection).
- Note any other signs of cervical or vaginal infections. These could be related to an unsafe abortion or could indicate Pelvic Inflammatory Disease (PID) or other RTIs. If signs of infection are present, obtain cervical cultures (if lab capability exists).
- Note the amount of bleeding.
- Note if the cervix is open or closed (to help determine the stage of abortion).
- Check for cervical lacerations.

## Specific Objective #5

- Gently withdraw the speculum.
- Even if there are no signs of sepsis, if a RTI is present or suspected, begin antibiotic treatment with broad-spectrum antibiotics **BEFORE** performing the MVA. Ideally, antibiotic treatment should begin 30-60 minutes before the MVA, but if it is an emergency situation, give the antibiotic immediately before the MVA, rather than delaying the procedure.

### Bimanual Exam

- Gently insert two fingers of one hand into the vagina while palpating the abdomen with the other hand.
- Estimate the size and position of the uterus and compare it to the dates of the Last Menstrual Period (LMP). With an incomplete abortion or ectopic pregnancy the uterus may be smaller than expected. If the uterus is larger than expected, it may be due to multiple pregnancies, blood clots, molar pregnancy, fibroids, or incorrect estimate of LMP.
- Check for pelvic masses and severity and location of any pain.
- Gently withdraw your examining fingers.
- Explain to the patient, based on your findings, what you will do next.



*Palpating the Uterus*

Source: IPAS

## Specific Objective #5

### EVALUATION OF FINDINGS

#### Types of Abortion:

1. **Threatened Abortion:** Bleeding is slight to moderate, the cervix is not dilated, and the uterus is equal to dates by LMP. If a pregnancy test can be performed, it will be positive. There may be some cramping, and the uterus will be soft. The best treatment for threatened abortion is to wait and see what happens. Ask the woman to rest in bed for 24-48 hours, but to return to the facility immediately if bleeding increases, cramping becomes heavier, or if she develops signs of infection. If she rests in bed and seems to do well, she should return to the facility in 1-2 weeks for an examination to confirm her continuing pregnancy.
2. **Inevitable Abortion:** Bleeding is moderate to heavy, the cervix has begun to dilate, the uterus will be equal to or less than expected by LMP, there is cramping, and the uterus may feel tender. The best treatment for inevitable abortion depends on individual factors for the patient and the facility. In general it is safest to perform MVA to complete the process and prevent complications such as hemorrhage or infection from retained Products of Conception (POC).
3. **Incomplete Abortion:** Bleeding ranges from very light to very heavy, the cervix is soft and open, the uterine size is equal to or less than expected by LMP, there may be cramping, POC may have already been expelled or may be visible at the cervical os, and the uterus may be tender. MVA should be performed to prevent complications.
4. **Complete Abortion:** Bleeding is slight or nonexistent; the cervix may be open or closed, but will be soft; the uterus is smaller than expected by LMP and may be firm; cramping may or may not be present; POC may have already been passed. Unless there is heavy bleeding, MVA is unnecessary.

If the findings of the assessment are normal and there are no major complications, the provider may continue with the MVA procedure.

### ASSESSMENT FOR POSSIBLE COMPLICATIONS

If any complications of shock, infection or sepsis, hemorrhage, or internal abdominal injury are discovered, the complications should be stabilized and treated before MVA is performed.

**Note:** *Evacuating the uterus promptly may stop hemorrhage.*

If the facility is not prepared to handle these complications, the woman should be stabilized and referred to a higher level facility (see *Specific Objective #6*).

## **Specific Objective #6: Describe possible complications of incomplete or septic abortion and their appropriate management**

### **COMPLICATIONS OF INCOMPLETE OR SEPTIC ABORTION**

Any woman presenting at a clinic or hospital with an incomplete or septic abortion may also be experiencing **one or more** life-threatening complications:

- Shock.
- Severe vaginal bleeding.
- Sepsis.
- Intra-abdominal injury.

These complications may occur together. Some women may present in shock, with sepsis, and severe vaginal bleeding due to intra-abdominal injuries.

### **SIGNS, SYMPTOMS, AND TREATMENT OF COMPLICATIONS**

**Note:** *These are not complications of the MVA procedure (except in very rare cases), but rather of unsafe induced abortion or of incomplete spontaneous abortion.*

#### **SHOCK**

Shock is the condition in which circulating blood volume is decreased, and oxygen supply to tissues is interrupted, resulting in damage to the vital organs. It is a highly unstable condition with a high risk of mortality.

In cases of abortion, shock most often results from hemorrhage (blood loss) or dilation of blood vessels from sepsis. Immediate treatment is required to save the patient's life.

When shock is suspected, immediately assess its stage and severity. Early shock is reversible and can usually be treated at the primary care level. Late shock usually requires referral for more intensive care once emergency care has started.

#### **Signs of Early Shock**

- Slightly fast pulse (110/minute or greater)
- Mild low blood pressure (systolic less than 90 mm Hg)
- Pallor (especially of inner eyelid, around mouth, or of palms)
- Rapid breathing (respiration 30/minute or greater)

## Specific Objective #6

- Awake, aware, and anxious
- Lungs clear
- Hemoglobin of 8 g/100 ml or above, or hematocrit of 26% or above
- Urine output of at least 30 cc/hour

## Signs of Late Shock

- Fast and weak pulse
- Very low blood pressure
- Extremely fast and shallow breathing
- Pallor
- Diaphoresis (perspiring, sweating)—skin cold and clammy
- Confused or unconscious
- Hemoglobin (Hb) below 8 g/100 ml or hematocrit (HCT) below 26% (if taken)
- Urine output less than 30 cc/hour (not always able to determine in emergency situations)

## Initial Treatment for Shock

Remember that shock is a life-threatening symptom of other complications. Treat shock first and then treat the source of the shock.

### *Universal Measures*

- Make sure airway is open.
- Check vital signs.
- Turn the woman's head and body to the side so that if she vomits, she is less likely to aspirate.
- Raise the patient's legs or the foot of the bed.

## Specific Objective #6

- If lying down causes severe difficulty breathing, there may be heart failure and pulmonary edema. In this case, lower the legs and raise the head to relieve fluid pressure on the lungs.
- Keep the patient warm.

### Oxygen

- Give oxygen at 6-8 liters/minute (mask or nasal cannula).

### Fluids

- Give IV fluids—Ringer's lactate or isotonic solution at 1 liter/15-20 minutes using a large bore (16-18 gauge) needle. It may take 1-3 liters to stabilize a patient in shock. **Do not give fluids by mouth.**
- A hemoglobin of 5 g/100 ml or less, or a hematocrit of 15% or less is life-threatening and a blood transfusion is necessary.
- Monitor amount of fluid/blood given.

### Medications

- If there is any indications that infection may be present, including fever, chills, or pus, give broad spectrum antibiotics by IV or IM ONLY (IV preferred). **Do not give medications by mouth.**

### Labs

While lab work is helpful, treatment of shock should begin without delay even if lab facilities are not available.

- Check hemoglobin or hematocrit.
- Collect blood for CBC (including platelets, if possible), type, and cross-match.
- If facilities are available, assess electrolytes and renal status indicators, such as blood urea or creatinine, and blood pH.
- Collect and measure urine output . If it is not possible to collect the urine, note if the urine is concentrated (dark color) or if the output is decreased (no urination).

## Specific Objective #6

### Signs of Stabilization and Improvement

- Increasing blood pressure (systolic of at least 100 mm Hg).
- Stabilizing heart rate (under 90)
- Less confusion or anxiety, or consciousness regained
- Skin color improves
- Respirations decrease
- Urine output increases (at least 100 ml/4 hours)

### Continuing Treatment for Shock

- After 20 to 30 minutes, assess if the patient's condition is stabilizing.

If the patient is **not stabilizing**:

- Continue giving oxygen and IV fluids.
- Monitor patient's condition closely.
- Reassess the need for antibiotics.
- Promptly begin treatment for underlying causes of shock.
- If after 2 hours the patient is not stabilized, refer her immediately.

If the patient is **stabilizing**:

- Gradually shut off oxygen. If patient begins to worsen with the oxygen turned off or down, turn it back on at 6-8 liters/minute.
- Adjust IV fluids to 1 liter/6-8 hours.
- If there is any indications that infection may be present, including fever, chills or pus, give broad spectrum antibiotics by IV or IM ONLY (IV preferred). **Do not give medications by mouth.** If antibiotics have already been started, continue treatment.
- Treat the underlying cause of shock.

## Specific Objective #6

### SEVERE VAGINAL BLEEDING

Severe vaginal bleeding may be caused by trauma to the vagina, cervix, or uterus as a result of an attempt to terminate the pregnancy. It may also be caused by retained products of conception in a spontaneous or induced abortion.

In the case of severe vaginal bleeding, the patient may also be in shock or at risk of shock if heavy bleeding continues.

#### Signs of Severe Vaginal Bleeding

- Heavy, bright red vaginal bleeding with or without clots
- Blood-soaked pads, towels, or clothing
- Pallor (especially of inner eyelids, palms, or around the mouth)
- Dizziness, syncope, hypertension

#### Initial Treatment for Severe Vaginal Bleeding

##### *Universal Measures*

- Make sure airway is open.
- Check vital signs.
- Raise the patient's legs or the foot of the bed.
- Use simple measures as appropriate to control bleeding (oxytocics, tamponing, uterine massage, emptying the uterus, suturing, and bimanual internal and external compression).

##### *Oxygen*

- Give oxygen at 6-8 liters/minute.

##### *Fluids*

- Replace fluid or blood volume.
- Give IV fluids—Ringer's lactate or isotonic solution at rate of 1 liter/15-20 minutes using a large bore (16-18 gauge) needle. It may take 1-3 liters to stabilize a patient who has lost a lot of blood.

## Specific Objective #6

- A hematocrit of 15% or less, or a hemoglobin of 5 g/100 ml or less is life-threatening and a blood transfusion is required.
- Monitor amount of fluid/blood given.

### Medications

- If there is any indications that infection may be present, including fever, chills or pus, give broad spectrum antibiotics by IV or IM ONLY (IV preferred). **Do not give medications by mouth.**
- Give IV or IM analgesia for pain.
- If there is any possibility that the woman was exposed to tetanus and there is uncertainty of her vaccination history, then give her tetanus toxoid and tetanus antitoxin.

### Labs

While lab work is helpful, treatment of severe vaginal bleeding should begin without delay even if lab facilities are not available.

- Check hemoglobin and hematocrit to assess the amount of blood loss. A drop in hemoglobin and hematocrit measures can often lag 6 to 8 hours behind the actual blood loss because of the time required for equilibrium. Type and cross-match blood if necessary.
- Collect and measure urine output. If it is not possible to collect the urine, note if the urine is concentrated (dark color) or if the output is decreased (no urination). If output is low at first and then begins to increase, it signals an improvement in the patient's general condition.

### Signs of Stabilization and Improvement

- Increasing blood pressure (systolic of at least 100mm Hg)
- Stabilizing heart rate (under 90)
- Skin color improves
- Urine output increases (at least 100 ml/4 hours)

## Specific Objective #6

### Continuing Treatment for Severe Vaginal Bleeding

- Continue to monitor vital signs, urine output, and fluids.
- If patient was initially stable, but later shows signs of shock, immediately begin stabilizing treatment with IV fluids and oxygen (see section on "Shock").

#### *Oxygen*

- Continue oxygen as long as patient is unstable.
- As the patient stabilizes, the oxygen can be gradually turned off. However, if the patient begins to worsen with the oxygen turned down or off, turn the oxygen back on at 6-8 liters/minute.

#### *Fluids*

- Once the woman has stabilized and her low fluid volume has been corrected, adjust the rate of IV fluids to 1 liter/6-8 hours.
- If the patient has a hematocrit of 15% or less, or a hemoglobin of 5 g/100 ml or less, make sure a blood transfusion has been started.

#### *Medications*

- If antibiotics, pain control, and tetanus toxoid and tetanus antitoxin have not been given, reassess the need for treatment. If treatment has been started, continue accordingly.

## INFECTION AND SEPSIS

Infection in abortion patients can be caused by microorganisms introduced into the cervix and uterus, or bacteria growing in retained products of conception.

Infection may be limited to the site (uterus or cervix), or may become generalized sepsis. **Immediate treatment is required.**

### Signs and Symptoms of Infection or Sepsis

- Chills, fever, sweats (flu-like symptoms)
- Foul-smelling vaginal discharge

## Specific Objective #6

- Abdominal pain
- Distended abdomen
- Rebound tenderness
- Mildly low blood pressure
- History of interference with the pregnancy (patient may or may not tell you this)
- Prolonged bleeding after an abortion or miscarriage
- Subinvolution of the uterus

Any patient with sepsis must receive immediate antibiotic treatment.

Monitor **all** patients with sepsis carefully for signs of septic shock.

### Assessment of Sepsis

Sepsis can be divided into two categories of risk: low risk of developing severe complications (septic shock) and high risk of developing septic shock. Patients at high risk need **immediate emergency treatment**.

**Low risk:** The patient can be considered low risk if she has **all** of these signs and symptoms:

- Mild to moderate fever (36.5-38.5°C or 99.5-101.5°F).
- Stable vital signs.
- First trimester pregnancy.
- No evidence of intra-abdominal injury.

**High risk:** The patient is at higher risk if she has **any** of these signs and symptoms:

- High fever (38.5°C or 101.5°F and greater) or subnormal temperature.
- If the pregnancy was in the second trimester (later than 14 weeks).
- Any evidence of intra-abdominal injury—distended abdomen, decreased bowel sounds, rigid abdomen, rebound tenderness, or nausea and vomiting.

## Specific Objective #6

- Any evidence of shock (low blood pressure, anxiety, confusion, unconsciousness, pallor, rapid breathing, or rapid, weak pulse).

### Initial Treatment for Sepsis

#### *Universal Measures*

- Make sure airway is open.
- Monitor vital signs.
- Give IV fluids. Do NOT give fluids by mouth.
- If the patient is at high risk for shock, IMMEDIATELY begin IV antibiotics and treat for shock.

#### *Oxygen*

- Oxygen is not necessary if the patient is stable and at low risk for shock.
- If the patient becomes unstable, give oxygen at 6-8 liters/minute.

#### *Fluids*

- Start an IV (1 liter of Ringer's lactate or isotonic solution per 20 minutes) using a large bore (16-18 gauge) needle for every patient at risk for sepsis.
- Monitor amount of fluid/blood given.

#### *Medications*

- Start IV antibiotics immediately, using broad-spectrum antibiotics that are effective against gram-negative, gram-positive, anaerobic organisms, and chlamydia.
- Give IV or IM analgesia for pain.
- Give tetanus toxoid and tetanus antitoxin if the patient has been exposed to tetanus or her vaccination history is uncertain.

#### *Labs*

While lab work is helpful, treatment of sepsis should begin without delay even if lab facilities are not available.

## Specific Objective #6

- If the patient has lost a lot of blood, check hemoglobin and hematocrit and collect blood for type and cross-match.
- If possible, perform a CBC to measure infection or the possibility of Disseminated Intravascular Coagulation (DIC). If DIC is present, there will be a low number of platelets.
- Collect and measure urine output. If it is not possible to collect the urine, note if the urine is concentrated (dark color) or if the output is decreased (no urination). If output is low at first and then begins to increase, it signals an improvement in the patient's general condition.
- If possible, take a flat-plate abdominal X-ray to identify air and fluid levels in the bowels and an upright abdominal X-ray to detect air under the diaphragm from uterine or bowel perforation.

### *Additional Measures*

- Treat underlying cause of infection.
- Check for signs of:
  - Gas gangrene.
  - Tetanus.
  - Intra-Abdominal Injuries (IAls).
  - Peritonitis.
  - Pelvic abscesses.
- If patient has an IUD in place, it should be removed.

### **Signs of Stabilization and Improvement**

See “Signs of Stabilization and Improvement” under “Severe Vaginal Bleeding.”

### **Continuing Treatment for Sepsis**

#### *Universal Measures*

- Continue to monitor vital signs, urine output, and fluids.

## Specific Objective #6

### Oxygen

- If the patient was initially unstable and oxygen was given, then continue until the patient stabilizes. Once stabilized, gradually shut off the oxygen. If the patient begins to worsen as the oxygen is turned down or off, then turn the oxygen back on at 6-8 liters/minute.

### Fluids

- For stable patients who are receiving IV fluids only for the purpose of antibiotics, continue with treatment.
- For initially unstable patients who are receiving IV fluids to correct low blood volume and to administer antibiotics, adjust the IV fluid rate to 1 liter/6-8 hours once she has stabilized.
- If the patient has a hematocrit of 15% or less, or a hemoglobin of 5 g/100 ml or less, make sure a blood transfusion has been started.

## INTRA-ABDOMINAL INJURIES (IAIs)

IAIs seen with incomplete abortion are uterine perforation and possible damage to surrounding organs. With IAI, **risk of infection, sepsis, and tetanus is high.**

Uterine perforation may be discovered upon initial exam, or later during the MVA procedure. Uterine perforation may occur (in rare cases) during the MVA procedure.

### Signs and Symptoms of IAIs

If any signs and symptoms listed below are found in a woman who has missed a period and had an unsafe abortion, the patient may be suffering from an IAI. These symptoms may also indicate a ruptured ectopic pregnancy, ruptured ovarian cyst, or acute appendicitis, each of which is also a surgical emergency.

- Abdominal pain, cramping
- Distended abdomen
- Decreased bowel sounds
- Tense, hard abdomen
- Rebound tenderness
- Nausea/vomiting
- Shoulder pain

## Specific Objective #6

- Fever
- Shock
- Sepsis

### Initial Treatment of IAIs

#### *Universal Measures*

- Check vital signs and raise patient's legs.
- Make sure airway is open.
- Do **not** give anything by mouth.

#### *Oxygen*

- Start oxygen at 6-8 liters/minute.

#### *Fluids*

- Give IV fluids—Ringer's lactate or isotonic solution at rate of 1 liter/15-20 minutes using a large bore (16-18 gauge) needle. It may take 1-3 liters to stabilize a patient who has lost a lot of blood or is in shock.
- Give a blood transfusion if hemoglobin is less than 5 g/100 ml or hematocrit is less than 15%.
- Monitor amount of fluid/blood given.

#### *Medications*

- Immediately give broad spectrum antibiotics by IV or IM only (IV preferred).
- Give tetanus toxoid if at risk.
- Give IV or IM analgesia for pain.

#### *Labs*

While lab work is helpful, treatment of IAI should begin without delay even if lab facilities are not available.

- Obtain lab tests for hemoglobin or hematocrit, type and cross-match blood.

## Specific Objective #6

- Collect and measure urine output. If it is not possible to collect the urine, note if the urine is concentrated (dark color) or if the output is decreased (no urination).
- When IAI is suspected and the facility has X-ray capabilities, an X-ray should be taken to determine the presence of gas in the peritoneal cavity. The X-ray may be performed with the patient upright, or if necessary, may be taken lying down (lateral view). The presence of gas is a sign of uterine or bowel perforation.

### *Additional Measures*

- For all IAIs, if your facility cannot perform laparotomy or laparoscopy, stabilize the patient and refer.
- However, if the woman is stable after initial treatment, the X-ray is negative, the abdomen not rigid, and there are no signs or symptoms of ectopic pregnancy, the provider may then evacuate the uterus by MVA in order to remove retained POC.

## Signs of Stabilization and Improvement

See “Signs of Stabilization and Improvement” under “Severe Vaginal Bleeding.”

## Continuing Treatment for IAIs

### *Universal Measures*

- Continue to monitor vital signs, urine output, and fluids.

### *Oxygen*

- Continue oxygen until the patient stabilizes. Once the patient has stabilized, gradually shut off the oxygen. If the patient begins to worsen as the oxygen is turned down or off, then turn the oxygen back on at 6-8 liters/minute.

### *Fluids*

- Once the patient has stabilized, adjust the IV fluid rate to 1 liter/6-8 hours once she has stabilized.
- If the patient has a hematocrit of 15% or less, or a hemoglobin of 5 g/100 ml or less, make sure a blood transfusion has been started.

**SOURCE:** Maternal Health and Safe Motherhood Programme, Division of Family Health, WHO. 1994. *Clinical management of abortion complications: a practical guide*. Geneva: WHO.

## Specific Objective #6

### Under What Conditions Should MVA be Performed When a Patient Presents with Complications from an Incomplete or Unsafe Abortion?

Treating complications and stabilizing the patient are the primary measures. Once the patient is stable, consider evacuation of the uterus by MVA if possible. If D&C or direct visualization is necessary, and your facility does not have the proper staff and necessary equipment, refer the patient to a facility with surgical capabilities.

### Preparing for Patient Referral and Transport

- Stabilize the patient.
  - Manage the airway and respiration.
  - Control bleeding.
  - Replace fluids via IV.
  - Administer pain control.
  - Begin antibiotic therapy if needed.
- Prepare referral information including:
  - Patient information.
  - History.
  - Assessment.
  - What initial treatment was given.
- If shock or hemorrhage, keep feet elevated.
- Arrange for prompt transport, and alert the referral center that patient is on her way.

### During Transport

- Trained staff should accompany patient, if possible.
- Continue oxygen, IV therapy, and antibiotics.
- Keep patient warm.
- Continue to monitor vital signs.

## **Specific Objective #7: Evaluate the methods of uterine evacuation following incomplete abortion in the first trimester**

### **METHODS OF UTERINE EVACUATION**

The primary methods of uterine evacuation following incomplete abortion in the first trimester are Dilation and Curettage (**D&C**), and Vacuum Aspiration (**VA**).

The decision on which method should be used to empty the uterus should be based on:

- The duration of gestation.
- Availability of equipment and supplies.
- Training and skill level of staff and facility.

**D&C**, also called sharp curettage, uses metal surgical instruments to empty the uterus. The use of D&C may entail operating theatre facilities and staff trained in surgical techniques and general anesthesia.

**VA** uses a vacuum of at least 55 mm Hg with a cannula made of flexible plastic, rigid plastic, or metal to evacuate the uterus. **This technique has low complication rates and involves very little trauma.** It can often be performed in a clinic or outpatient setting that requires less resources and fewer staff.

Currently, VA is preferred to D&C because of the lower complication rates and the reduced need for transporting the woman to a high-level facility with an operating theatre.

#### **Two Types of VA are Available:**

**1. Electric vacuum aspiration** uses an electric pump and rigid cannula for uterine evacuation in the first trimester.

**2. Manual Vacuum Aspiration (MVA)** uses a hand-held vacuum syringe and flexible plastic cannula. Foot-operated pumps also are available in some areas. MVA was developed in the early 1970s in the US. MVA is a safe, effective, and low-cost method of uterine evacuation.

#### **Mechanism of MVA**

The MVA cannula is inserted through the cervix and attached to a syringe that contains a vacuum. A valve or two valves are compressed which creates this vacuum. When the valve is released, the contents of the uterus are emptied by suction into the syringe. The syringe aspirates (provides suction), while the cannula reaches into the uterus.

## Specific Objective #7

### Key Aspects of the MVA Mechanism

- It does not require electricity.
- It is portable.
- The syringe has two functions: source of vacuum and a container.
- The syringe (double and single-valve) holds 60 cc of aspirated fluid and tissue.

The World Health Organization (WHO) recommends that doctors, medical assistants, and midwives be trained in vacuum aspiration for treatment of incomplete abortion (Source: WHO. 1991. *Essential Elements of Obstetric Care at First Referral Level*. Geneva: WHO.). The fact that providers other than doctors can be trained in VA is an advantage in areas where human resources are limited.

### Uses of MVA Equipment

The single and double valve syringes may be used for treatment of incomplete abortion up to 8 weeks from the Last Menstrual Period (LMP) (confirmed by bimanual examination), and the double valve syringe may be used for MVA in treatment of incomplete abortion up to 12 weeks LMP.

The single valve syringes are also appropriate for use in obtaining an endometrial biopsy. MVA can be used in outpatient settings, thus increasing women's access to care.

### Advantages of MVA

- Incidence of hemorrhage, pelvic infection, cervical injury, and uterine perforation are lower than with D&C.
- Because no general anesthesia is used, the recovery time is quicker.
- Less cervical dilation is necessary.
- Heavy sedation is not required.
- Costs for procedure, staff time, and resources are lower.

## Specific Objective #8: Demonstrate the preparation of MVA equipment

### MVA INSTRUMENT PARTS

- Barrel
- Cannulae
- Adapter
- Valve set
- O-rings
- Plunger
- Collar stop

### PREPARING MVA INSTRUMENTS

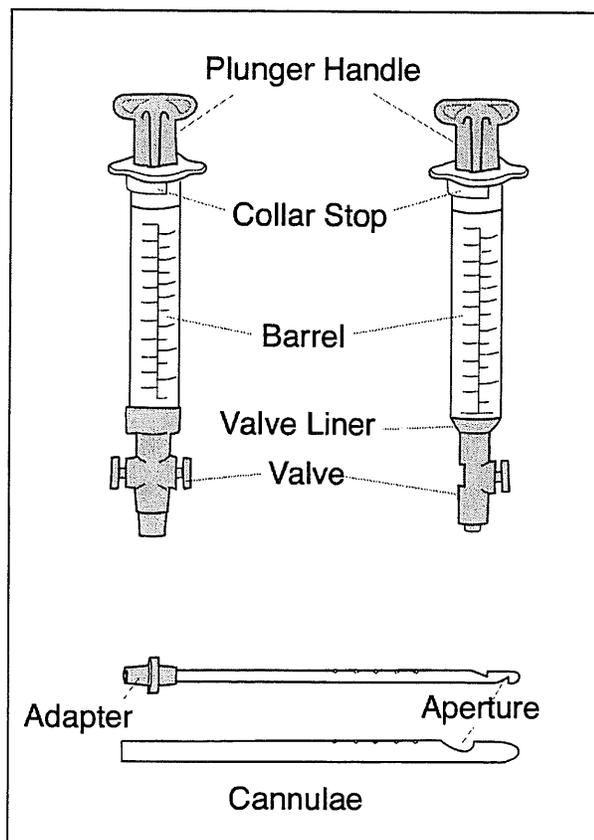
1. **Select cannula** according to the assessment of uterine size (weeks LMP). It is a good idea to prepare several cannulae for the procedure.

For treatment of incomplete abortion, follow the chart below.

The cannula needs to be large enough to allow passage of tissue expected (according to gestation) and to fit snugly through the cervix, but use the largest cannula you can comfortably use.

Approximate Uterine Size	Approximate Cannula Size
5-6 LMP	5-6 mm
7-8 LMP	7 mm
9-10 LMP	7-10 mm
10-12 LMP	9-12 mm

**Inspect cannula** for cracks or defects. Discard cannula if there are any visible signs of weakness or wear.



*Manual Vacuum Aspiration*

Source: IPAS

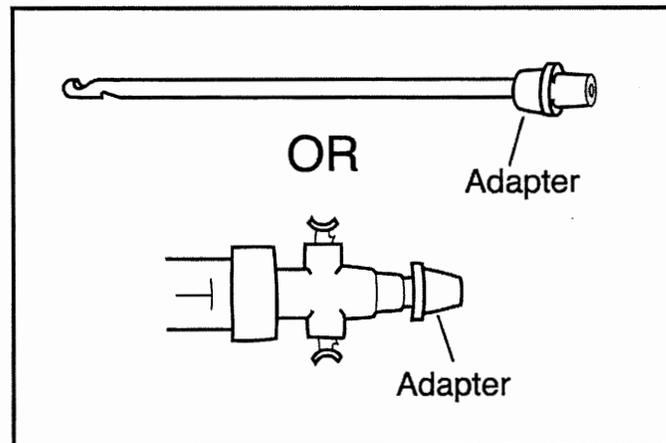
## Specific Objective #8

2. **Select syringes and adapters** (if needed), according to the chart below.

Cannula Size	Adapter Color	Syringe Type
4, 5, 6 mm	No adapter needed	Single
4, 5, 6 mm	Blue	Double
7 mm	Tan	Double
8 mm	Ivory	Double
9 mm	Dark brown	Double
10 mm	Dark green	Double
12 mm	No adapter needed	Double

It may be useful to prepare two syringes in case one is worn or defective. Note that the colored dots on the cannulae match the color of the appropriate adapter.

3. **Inspect syringes.** The syringe must be able to hold a vacuum. Discard syringes with any visible cracks or defects, or ones that do not hold a vacuum.
4. **Attach the adapter** (if required) to the end of the syringe or cannula.



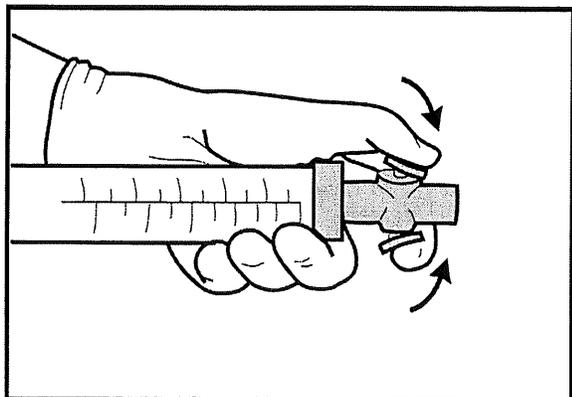
*Attaching the Adapter*

Source: IPAS

5. **Check the plunger and valve.** The plunger should be positioned all the way into the barrel, and the pinch valve should be open with the valve button out.

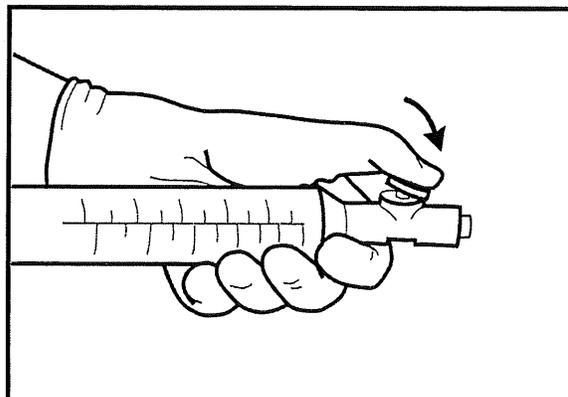
### Specific Objective #8

6. **Close the pinch valve** by pushing the button down and forward until you hear it lock into place.



**Closing the Pinch Valves (Double Valve Syringe)**

Source: IPAS



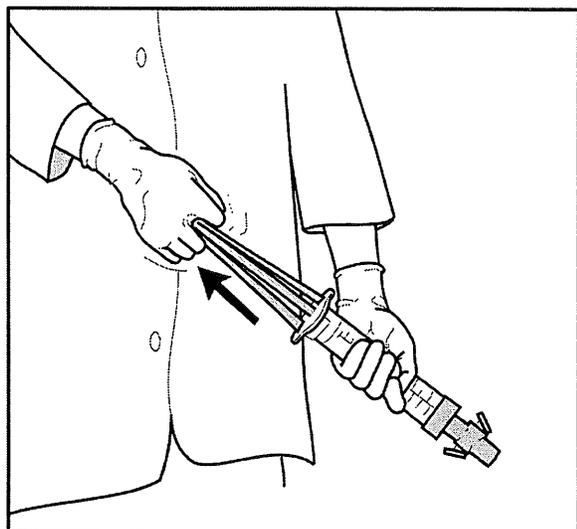
**Closing the Pinch Valves (Single Valve Syringe)**

Source: IPAS

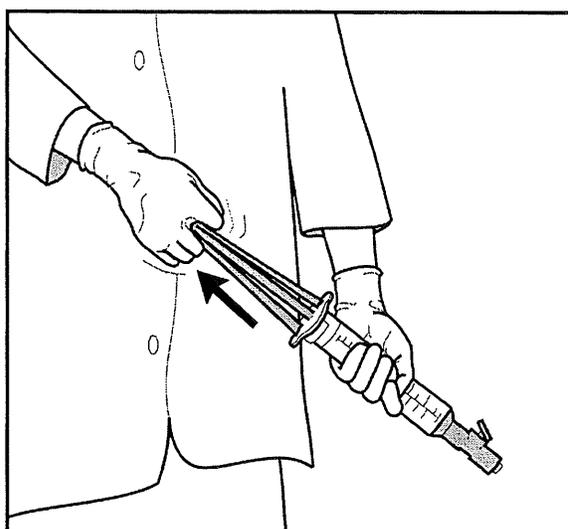
7. **Prepare the syringe** by grasping the barrel and pulling back on the plunger until the arms of the plunger snap outward.

**Plunger arms must be fully secured over the edge of the barrel, so the plunger cannot move forward accidentally.**

Incorrect positioning of the arms could allow them to slip back inside the barrel, possibly pushing air or the contents of the syringe into the uterus. **Never grasp the syringe by the plunger arms.**



**Preparing the Syringe (Double Valve Syringe)**  
Source: IPAS



**Preparing the Syringe (Single Valve Syringe)**  
Source: IPAS

## Specific Objective #8

8. **Check the syringe for vacuum tightness before use** by preparing the syringe as in steps 3-7. Set the arms and leave the syringe that way for several minutes. Then open the pinch valve. You should hear a rush of air into the syringe, indicating that there was a vacuum into the syringe.

**SOURCE:** Ipas. N.D. *Clinical guidelines for the use of manual vacuum aspiration in managing incomplete abortion.* Carrboro, N.C.: Ipas.

## **Specific Objective #9: Demonstrate infection prevention procedures for the provider**

### **INFECTION PREVENTION**

Infection prevention is vitally important to prevent disease transmission in the clinical setting and minimize risk to patients, health care workers, and the community. The MVA procedure is a very safe procedure when done correctly with proper infection prevention techniques. The biggest risk to the patient is from infection from poorly processed instruments or from a provider who is not using good infection prevention practices.

(See Pathfinder's *Module 2: Infection Prevention* for more information.)

In this section, participants will be introduced to infection prevention procedures, including protective barriers, the use of sterile gloves, antiseptics, safe waste disposal, and the correct processing of equipment.

Who is at risk of acquiring an infection in a health care facility?

**Clients** may become infected through:

- Contaminated equipment that is not processed correctly (needles, speculum, etc.).
- Providers' unwashed hands or contaminated gloves.

**Staff** (both service providers and housekeeping personnel) may become infected through:

- Contaminated equipment that is not processed correctly.
- Splashes of blood or other bodily fluids.
- Exposure of provider's broken skin (chapped, cut, rash, or fungal infection) to infection. This can happen while cleaning a procedure room, caring for a client, or working with contaminated equipment.
- Not using the "no hands" method for needle recapping, or not disposing of sharps in appropriate containers.
- Not wearing protective barriers such as gloves, goggles, masks, etc.

**The Community** may be infected through:

- The improper disposal of medical waste such as sharps and contaminated dressings which can be found by children.

## Specific Objective #9

- An infected staff member bringing the infection home to her/his family or her/his community.

### Measures to decrease the risk of infection

Placing a physical, mechanical, or chemical “barrier” between microorganisms (such as bacteria, viruses, or endospores) and an individual is an effective way of preventing the transmission of infection. Protective measures include:

1. Handwashing, surgical scrubbing.
2. Mechanical barriers such as gloves, eye protection, or gowns.
3. Antiseptics, including those for skin and mucosa.
4. Housekeeping.
5. Protection from sharp instruments.
6. Safe waste disposal.
7. Decontamination and correct processing of instruments and linen (See *Specific Objective #10*).
8. Ensuring that cleaning supplies are available in exam room, i.e. soap, clean towels, and water.

### 1. HANDWASHING

(See *Specific Objectives #5 and #6 in Module 2* for more information and details.)

Handwashing is the single most important step in preventing infection because we touch surfaces with our hands and then touch our face—eyes, nose, and mouth—carrying microorganisms into the body.

#### When to Wash

- Before putting on gloves
- Immediately after removing gloves
- After any possible contamination

## Specific Objective #9

### How to Wash

Providers should not wear nail polish and should remove all jewelry. Jewelry and nail polish offer protection to microorganisms and can even carry microorganisms.

- Turn on the water from the tap. **Avoid splashes.**
- If there is no running water, use a dipper to pour water on the hands at the beginning of washing and when rinsing.
- Position the hands and wrists downward as you wet them so that the water flows down and away from the elbows.
- Soap the hands.
- Hold the bar with two fingers on the edges, and rinse it before placing it back in the soap dish.
- Avoid touching the sink or soap dish, as they are probably contaminated.
- Wash hands for 10-15 seconds.
- Use a soft brush or thick stick to clean nails at the beginning and end of the clinic session, and any time that they become dirty during the session.
- Point hands down when rinsing them with running water so that water does not go on the arms.
- Air dry hands or dry them with an unused, dry portion of a clean cotton towel. This towel should not be used by others.
- Hold the towel or a paper towel over the faucet to protect your clean hands from touching the faucet.

### If Clean Water Is Not Available

Clean hands with isopropyl or ethyl alcohol 70%. Keep a covered container of alcohol swabs ready for use. Alcohol makes the skin dry, but lotion can be applied at the end of the session. Do not use lotion every time after cleaning hands with alcohol because it is contaminated with microorganisms.

## Specific Objective #9

### Surgical Handscrub

A 3-5 minute handscrub with a solution containing chlorhexidine or an iodophor and a **soft** brush is recommended.

Alternatively, surgical staff can wash hands with plain soap, then apply alcohol solution containing an emollient (see below) and rub until dry.

A non-irritating alcohol solution can be made by adding either glycerin, propyl glycol, or Sorbitol® to the alcohol (2 ml in 100 ml 60-90% alcohol solution).

Use 3-5 ml for each of two applications and continue rubbing the solution over the hands for about two minutes per application, using a total of 6-10 ml per scrub.

## 2. MECHANICAL BARRIERS

Wear gowns, aprons, goggles, and gloves whenever providing patient care that involves blood or body fluids, and whenever handling bloody items, such as instruments, sheets, etc.

### Gloves

Use High-Level Disinfected (HLD) exam gloves (or surgical gloves) for patient exams and MVA procedure.

**Make sure gloves have no holes or cracks. Wash hands and change gloves between patient contacts and after pelvic or rectal exams.**

Use clean, heavy utility gloves when cleaning instruments, equipment, tables, and rooms.

When putting on sterile gloves, be careful not to touch the outer glove surface.

When rolling gloves off, keep your hands above your waist to prevent contamination from microorganisms moving down your arms and to keep microorganisms or body fluids on the gloves from touching another part of your arms or body.

**Note:** *After using gloves during a pelvic (bimanual) exam, the provider cannot **use the same gloves to touch sterile instruments**. Remove the gloves, wash hands, and put on another pair. If using reusable gloves, put the gloves in a decontamination solution*

## Specific Objective #9

### 3. ANTISEPTICS

Antiseptics are chemicals that kill or inhibit many, though not all, microorganisms while causing little damage to tissue. **Cleaning the client's skin with antiseptic solution is an important infection prevention measure.**

Antiseptic solutions should be used for both surgical scrub prior to the MVA procedure and to prepare the vagina and cervix prior to MVA.

**Note:** *Alcohol should never be used on mucous membranes because it burns the membranes.*

*Zephiran™ (benzalkonium chloride) should not be used as an antiseptic because it takes at least 10 minutes to kill HIV. Benzalkonium chloride solutions have repeatedly been shown to become contaminated by pseudomonas and other bacteria. Solutions of benzalkonium chloride are easily inactivated by gauze and other organic material.*

**Antiseptics are for skin or mucous membranes only.** *They are not designed for use on inanimate objects such as operating tables or equipment.*

#### Vaginal Preps

For vaginal preps, prior to MVA, select a water-based antiseptic such as an iodophor or chlorhexidine gluconate (Hibiclens™ or Savlon™).

1. Ask the client about known allergic reactions before selecting an antiseptic solution.
2. If visibly soiled, thoroughly clean the client's skin or external genital area with soap and water or have her clean it before applying antiseptic solution.
3. You may apply an antiseptic solution to the perineum. Apply the solution from the front of the patient to the back. Select the antiseptic solution from the chart found in *Participant Handout 8.1: Antiseptic Effectiveness*. Allow the antiseptic to dry before beginning the procedure.
4. After inserting the speculum, apply the antiseptic solution to the cervix and the vagina using dry, disinfected forceps and cotton soaked in the antiseptic. Usually 3 cotton balls soaked in solution will be enough. Begin with the cervix and move outward.
5. If iodophors are used, allow 1 to 2 minutes before proceeding (iodophors require up to 2 minutes contact time to release free iodine).

## Specific Objective #9

### 4. HOUSEKEEPING

#### When and How to Clean the Operating Room

Total cleaning of the operating room should be done at the end of each day. Total cleaning is not necessary between each case. However, between each client or procedure, certain decontamination procedures should be followed.

#### Cleaning Between Each Client or Procedure

- Always wear heavy utility gloves when cleaning the operating room or procedure room.
- Using a 0.5% chlorine solution, decontaminate instruments, examination tables, trolleys, or Mayo stands, countertops, lamp handles, and anything which might potentially be contaminated.
- Clean up any blood or body fluid spills with 0.5% chlorine solution. For large spills, flood the area with 0.5% chlorine solution. Mop up solution, and then mop as usual with a disinfectant cleaning solution.
- Clean any visibly soiled areas of the floor with a mop soaked in a disinfectant cleaning solution.
- Remove any contaminated gowns or linen, transporting them in a leak-proof bag or a clean linen bundle with contaminated linen on the inside.
- Remove the equipment in the decontamination bucket after 10 minutes and clean the equipment. It is important to remove equipment after 10 minutes. Failure to do so will result in rusted instruments. If the solution is heavily contaminated, mix a fresh solution.

#### Total Cleaning Done at the End of the Day

- Remove the decontamination bucket and decontaminated equipment for cleaning.
- Remove any contaminated waste, and burn or bury it as soon as possible.
- Wipe down **all** surfaces with a disinfectant cleaning solution. Remember to wash from top to bottom and clean every single exposed surface.
- Clean floors with a mop dampened with a disinfectant cleaning solution. Never dry mop or sweep.

## Specific Objective #9

### 5. PROTECTION FROM SHARP INSTRUMENTS

**Injuries from sharp instruments are the most common way that HIV and HBV are transmitted in health care situations.**

To protect from needlesticks and other injuries:

- Keep handling of sharp instruments to a minimum (pass these on a tray).
- Always have a puncture-proof container for sharps within reach.
- If you must recap a needle, use the "no hand" method.

If you do get a needlestick or other injury:

- **Remove gloves and wash wound immediately** with soap and water. Treat needle stick injuries according to local protocol, and inform clinic or hospital management that an injury has occurred.

If blood or body fluids splash in eyes:

- **Wash eyes thoroughly** with clean water or saline solution. Treat according to local protocol, and inform management.

### 6. SAFE WASTE DISPOSAL

Waste materials generated at a facility may be either contaminated or non-contaminated. **Non-contaminated** waste does not pose any risk of injury or infection. It is the same kind of waste generated at home. It includes paper, trash, boxes, bottles, plastic containers, or trash from the kitchen.

**Contaminated waste** is waste that could injure or infect staff. It may be medical waste generated from the clinical procedures done in the facility. It may include blood, pus, urine, feces, or other body fluids. It may be on objects such as needles, bandages, laboratory supplies, or supplies used during surgery or to do procedures in a patient's room. Contaminated waste also includes items that might cause injury, such as used needles or scalpel blades. It may be chemical waste that is poisonous or potentially toxic such as cleaning products, drugs, or radioactive material.

## **Specific Objective #9**

### **Disposing of Sharp Objects (Needles, Razors, and Scalpel Blades)**

- Dispose of all sharps in a puncture-resistant container such as a heavy plastic or glass container.
- If possible, fill the container partially full with a 0.5% chlorine solution. This solution will rapidly kill HBV and HIV.
- Keep the containers near areas where procedures are conducted so staff doesn't have to go far to dispose of needles or blades.
- Be sure the containers are labeled.
- When the container is  $\frac{3}{4}$  full, close it securely and dispose of it.
- Always wear heavy gloves when disposing of waste.
- If the hospital has a large incinerator, the sharps may be burned. If there is no incinerator, dispose of the sharps by burying them.
- Wash hands after handling the sharps container.

### **Disposal of Contaminated Liquid Waste**

- Always wear heavy gloves when handling or transporting liquid waste.
- When transporting liquid waste, cover it to avoid splashing.
- Carefully pour the waste down a utility sink, toilet, or sluice. Avoid splashing.
- After pouring out waste, carefully rinse toilet or sink with water.
- If a container is to be used again, such as a specimen bottle, decontaminate it with 0.5% chlorine before cleaning it.
- Wash your hands after disposing of contaminated liquid waste.

### **Disposal of Solid Waste**

- Wear heavy gloves when handling or transporting solid waste.
- Dispose of solid waste in a washable container with a tightly fitting cover.

## Specific Objective #9

- Keep enough containers accessible so staff always has them available to throw away solid waste.
- Collect containers on a regular basis and transport them to the incinerator.
- Wash hands after handling waste.

### Disposal of Used Chemical Containers

- Wearing heavy gloves, rinse the glass containers thoroughly with water and wash them with detergent. Dry and reuse.
- For plastic containers that were used to store toxic substances like Cidex, rinse them 3 times and dispose of them by burying. Never reuse these containers.

**Adapted from:** Tietjen, L., W. Crown, and N. McIntosh. 1992. *Infection prevention for family planning service programs*. JHPIEGO.

## **Specific Objective #10: Demonstrate how to process MVA instruments for reuse**

### **PROCEDURES FOR REUSE OF MVA INSTRUMENTS**

This section of the module will outline the procedures for reuse of MVA instruments. These procedures need to be followed closely to protect health workers and their patients from the spread of infection.

Many microorganisms (such as the HBV virus) can live in dry blood. Local or general infections can be caused by bacteria, fungi, or parasites. HIV and hepatitis are caused by viruses. Tetanus and gangrene are caused by bacterial endospore.

If instruments are not properly cleaned and disinfected, blood in the crevices of syringes, tenacula, etc. can dry and flake off on a patient or onto a health worker the next time the instruments are used.

Instruments must be processed safely in order to protect doctors, nurses, housekeeping staff, and patients from infection.

Safe processing of instruments does not require expensive, high-tech equipment.

### **THE 4 STEPS IN PROCESSING INSTRUMENTS**

1. Decontamination
2. Cleaning with detergent and water
3. High-Level Disinfection (HLD) or sterilization
4. Safe storage and reassembly of instruments

**Decontamination** makes soiled objects safer to touch. It kills HBV and HIV.

**Cleaning** removes up to 80% of the microbes on the equipment.

**High-level disinfection** destroys all bacteria, viruses, fungi, parasites, and some endospores (up to 95% of microbes).

**Sterilization** destroys all microorganisms, including all endospores.

**Proper storage of HLD or sterile instruments** is essential to prevent recontamination. HLD or sterile instruments must be stored safely in a HLD container or sterile container with a tight-fitting cover.

## Specific Objective #10

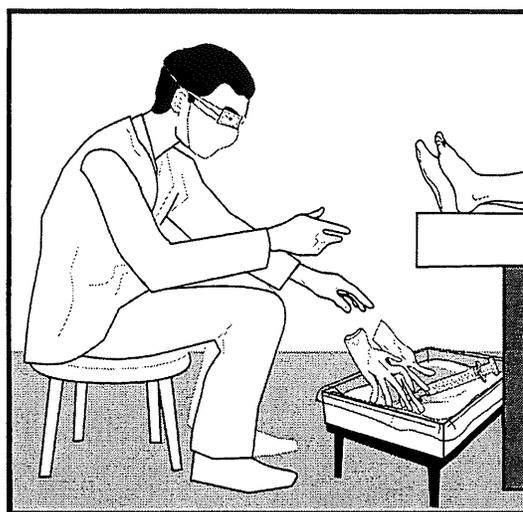
### STEP 1: DECONTAMINATION

Decontamination is the first step in handling used (soiled) instruments and gloves. Instruments contaminated with body fluids, especially blood, from a client must be decontaminated before being cleaned and high-level disinfected or sterilized. These include uterine sounds, tenacula, specula, etc. Decontamination is done to protect personnel who must handle the instruments.

Supplies needed for decontamination include water, a plastic or enamel pail, and chlorine.

#### Procedures for Decontamination

- Wear protective gloves. (Keep a separate set of gloves for decontamination.)
- Submerge all instruments, including cannulae, the MVA syringe, and metal or plastic dilators (if used) in a 0.5% chlorine bleach solution for 10 minutes. **To prevent metal corrosion (rust), do not submerge for more than 20 minutes.**
- This step should be performed immediately after the MVA procedure. Use a plastic container for this, and keep it next to the treatment table.
- Before decontaminating the syringe, empty the contents of the syringe into a strainer or waste container.
- Draw the solution through the cannula into the MVA syringe, then detach the cannula and place the syringe, cannula, other soiled instruments, and gloves in the chlorine solution.
- Reusable needles and syringes should be filled with 0.5% chlorine solution. Draw in and expel the solution several times. The syringe and needle should be soaked in solution for 10 minutes.



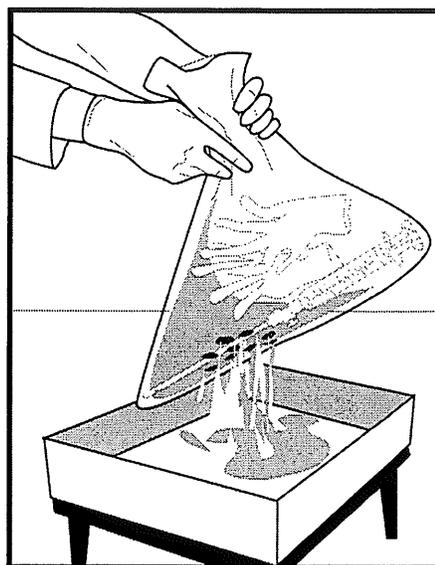
**Decontaminating Instruments and Gloves**  
Source: IPAS



**Drawing Decontamination Solution into Syringe**  
Source: IPAS

## Specific Objective #10

- Disposable needles should be placed in puncture-resistant containers. These can be made of quart or liter size plastic or glass containers. Label these containers clearly and keep them close to the examining table. A 0.5% chlorine solution may be put in the container. Chlorine both decontaminates needles and eventually rusts them, making them unusable and no longer dangerous.
- Remove the reusable item(s), rinse them immediately with cool water to prevent rust, and clean them following the steps outlined below.
- When removing items from the decontamination solution, use gloves or a strainer bag to avoid contact with skin.
- Change the solution at least once a day or more often if it looks dirty or cloudy.



**Removing Instruments from Decontamination Solution**

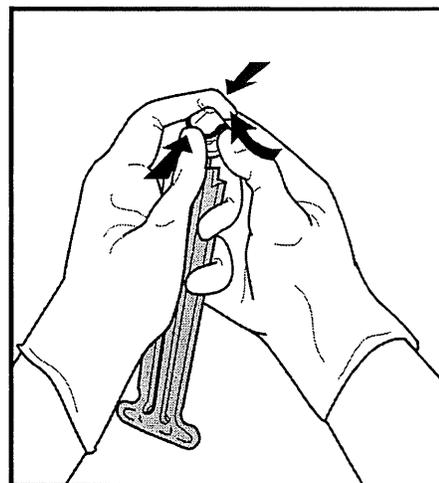
Source: IPAS

### STEP 2: CLEANING

- Always wear heavy rubber or plastic utility gloves during cleaning.
- Draw soapy water through the cannula and needles.

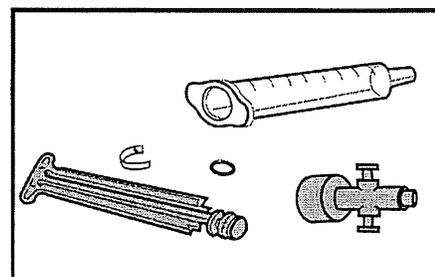
### Disassembling the Syringe

- Disassembling the syringe must be done before washing. To disassemble the syringe, remove the collar stop, pull the plunger out of the barrel, remove the valve and valve liner, open the valves, and remove the o-ring.



**Removing the O-ring from the Plunger**

Source: IPAS



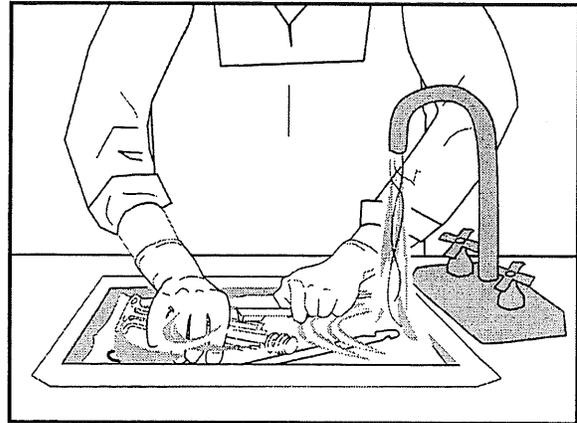
**Disassembling the Syringe**

Source: IPAS

## Specific Objective #10

### Washing Equipment

- Wash all parts of syringe and cannula in lukewarm water with detergent (not soap). Hot water will coagulate blood, making it harder to clean.
- Hold all parts of syringe and cannula under the surface of the water to prevent splashing on skin or eyes. Scrub with a soft brush (old toothbrush). **Do not use brushes or wires to clean the cannula because they can scratch the inner surface where organisms can become trapped.**



Washing the Instruments

Source: IPAS

### Rinsing and Drying Equipment

- After washing, rinse all parts of the syringe, cannula, and needles thoroughly with clean water.
- Dry by air or with a clean towel. The cannula should be completely dry inside and out since water inside the cannula can dilute the solution used to high-level disinfect or sterilize.

### STEP 3: HLD/STERILIZATION

All clean, dry instruments should be either high-level disinfected or sterilized. Autoclaving (steam) or dry heat should **not** be used on the syringe or cannula. Boiling or cold (chemical) high-level disinfectants such as glutaraldehyde can be used on cannulae. Only cold, high-level disinfectants can be used on the syringe.

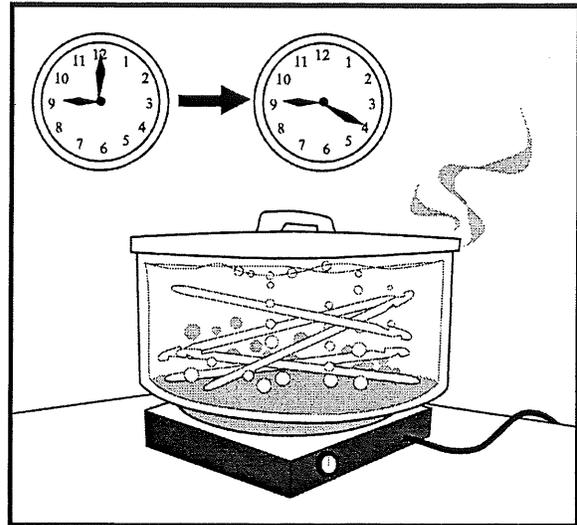
**Note:** Depending on the available means of infection control at your clinic, perform the following high-level disinfection or sterilization routines.

## Specific Objective #10

### High-Level Disinfection—Boiling for Cannulae Only

- Fill a large pot  $\frac{3}{4}$  full of clean water and put it on a stove or fire.
- Place cannulae in boiling water. Bring to a boil again. Boil for 20 minutes.
- Remove the cannulae gently with HLD forceps. Tip the cannulae so the water drains out. Air dry on disinfected surface.

**Note:** Do not boil the syringes, the valves will crack.

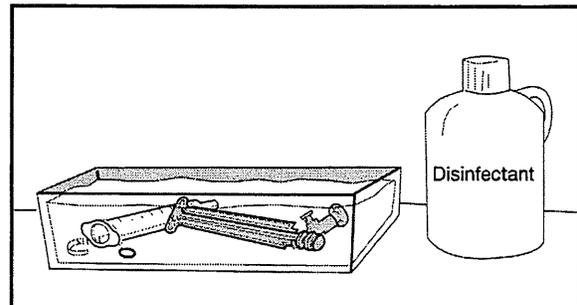


*Boiling the Cannulae*

Source: IPAS

### Chemical High-Level Disinfection for Cannulae and/or Syringe

- Follow instructions to mix 0.1% solution of chlorine using boiled water (0.5% if using tap water) or 2% glutaraldehyde (Cidex).
- Submerge clean, dry items in a non-metal container for 20 minutes. Remove with HLD forceps and rinse with boiled water.
- Let the syringes and cannulae air dry on HLD surface.
- Change solution at least every day.



*Chemical High-Level Disinfection for Cannula and/or Syringe*

Source: IPAS

### Important Things to Remember:

- Tap water should never be used for rinsing because it is contaminated.
- When boiling the cannulae or conducting chemical HLD, instruments should be fully submerged as well as filled with solution.
- HLD items must be rinsed in boiled water to remove the residue left by the chemical disinfectant.

## Specific Objective #10

- **Never store cannulae or syringes in solutions such as Savlon, alcohol, iodine, or boiled water because the liquids easily become contaminated.**
- **Low-level disinfectants or antiseptics such as Phenol, Savlon, or Hibitane, will not kill microbes on cannulae and syringes and must not be used for disinfection.**

### Reassembling Equipment

Equipment can either be reassembled by an assistant immediately after the HLD process, or the equipment can be stored disassembled and the provider or an assistant can reassemble the equipment right before the MVA procedure.

- Squeeze silicone into a galley pot.
- Put on HLD gloves. An alternative would be to put on the HLD gloves and have an assistant fill the galley pot for you. To avoid contamination, the HLD gloves should not come in contact with the silicone container at any point.
- Put the o-ring back on the plunger and lubricate it by dipping the end of the plunger into the silicone before reinserting it in the barrel of the syringe.
- Put the plunger arms and plunger into the syringe. Pull the plunger in and out to lubricate the barrel.
- Reattach the collar stop, and push the valve and valve liner onto the syringe.
- Check to see if the syringe can hold a vacuum by closing the valve and pulling out the plunger until the arms lock. Leave the syringe in this position for 2-3 minutes. Release the valve and listen for a rush of air. If no sound is heard, take the syringe apart and reassemble it. If there is still no sound when the valve is released a part may need to be replaced.

### Storage of High-Level Disinfected Equipment

- Store HLD instruments in a dry HLD container with a tight-fitting lid for up to one week.
- Storage of instruments should be carefully designed to protect their disinfection. Store equipment off the floor in enclosed shelves away from dust and moisture.
- A HLD container can be prepared by boiling the container for 20 min. or soaking the container in 0.5% chlorine solution for 20 min. and rinsing thoroughly with boiled water.

## Specific Objective #10

### Removing Cannula and Syringe from Storage

- Keep instruments in small quantities in each container.
- Use HLD forceps to remove cannula by the non-aperture end.
- Avoid touching the rest of the cannula.
- Use HLD forceps to remove the syringe.

### Sterilizing Cannulae and Syringe

- Whenever using chemical sterilization, make sure items are completely submerged, and that the solution fills the inside of cannulae and syringes.
- Once timing has begun do not add or remove any items until the time is up.
- Cannula and syringes may be sterilized using either 2% glutaraldehyde (Cidex) or formaldehyde 8%.



**Sterilizing the Cannulae**

Source: IPAS

## Specific Objective #10

### Using 2% Glutaraldehyde (Cidex)

- Glutaraldehyde works best at warm temperatures. Follow manufacturer's instructions for mixing.
- Soak the cannula and syringe for 10 hours, remove with sterile forceps, rinse with sterile water, and air dry.
- Check manufacturer's instructions regarding how long the glutaraldehyde solution will last after being mixed.

**Note:** *Glutaraldehyde is irritating to skin, eyes, and respiratory tract. Wear gloves, limit your exposure time, and keep the area well ventilated.*

### Using 8% Formaldehyde

- Never dilute formaldehyde with chlorinated water. This will produce a highly toxic gas.
- Soak the instruments in 8% formaldehyde for 24 hours for sterilization, remove with sterile forceps, rinse with sterile water, and air dry the cannula.
- Formaldehyde solution will last 14 days after activated.

**Note:** *Formaldehyde produces toxic vapors and is potentially cancer-causing. It must be used only in well-ventilated areas while wearing gloves. Limit exposure time.*

### Important Points to Remember

- Items must be rinsed in **sterile** water (water that has been autoclaved) following sterilization to remove the residue that chemical sterilants leave on instruments. This residue is toxic to skin and tissues.

## STEP 4: STORAGE OF STERILE EQUIPMENT

Store dry sterile equipment in a sterile container with a tight fitting lid. As long as the container is not contaminated, the cannulae and syringes will remain sterile for up to 7 days. Reprocess the equipment after 7 days if not used.

### Removing Cannula and Syringes from Storage

- Keep instruments in small quantities in each container.

## Specific Objective #10

- Use only sterile forceps to remove sterile equipment. Remove the cannula by the non-aperture end.
- Avoid touching the rest of the cannula.
- Forceps used to pick up the sterile cannula must be sterilized daily and stored dry in a sterile forceps jar.
- Storage containers, forceps, and the forceps jar may be sterilized by dry heat, steam heat, or by chemical sterilization.

**Note:** *These instructions are for MVA equipment. Refer to Pathfinder's "Module 2: Infection Prevention" for information on processing other instruments.*

## **Specific Objective #11: Summarize pain control procedures appropriate for MVA**

### **BACKGROUND**

MVA can be performed in facilities other than a hospital operating room. This has many advantages, including the use of local anesthesia and lower doses of analgesics and sedatives. This is safer for patients.

Because the woman is awake during the MVA procedure, clinicians must be very attentive to the management of pain through supportive interaction and proper medication.

### **GOAL OF PAIN MANAGEMENT**

The goal of pain management is to guarantee that the patient experiences minimal worry and discomfort with the lowest possible health risks.

### **TYPES OF PAIN**

1. **Pre-existing Pain:** Women who have undergone an incomplete or complicated abortion may already be in pain when they arrive at the health center, as a result of:
  - Expulsion of uterine contents.
  - Possible infection.
  - Possible trauma.
  - Arduous trip to health center.
  
2. **Fear and anxiety** will augment the pain experienced by some women as well. A woman may be feeling:
  - fear of a serious problem that might need expensive and extensive treatment.
  - fear for her future health and fertility.
  - fear of blame and disapproval from health center staff.
  - fear of prosecution (in some areas).
  - fear of being found out by her husband, parents, relatives, or community members.

## Specific Objective #11

3. **The MVA procedure itself** will cause additional pain and cramping. Patients undergoing MVA for treatment of incomplete abortion may commonly experience 2 types of pain:

- Deep pain and cramping caused by dilation of the cervix and stimulation of the internal cervical os.
- A diffuse lower abdominal pain with cramping that is caused by movement of the uterus, scraping of the uterine wall, and uterine muscle contractions related to the emptying of the uterine cavity.

Unnecessary intense pain can result from trying to dilate the cervix forcefully, too quickly, or too soon after the paracervical block.

Deep pain from cervical dilation can be reduced with a paracervical block and can be further reduced with appropriate analgesics and/or anxiolytics. However, diffuse lower abdominal pain will not be affected by a paracervical block.

### PAIN MANAGEMENT TECHNIQUES

- Efficient, well-trained team
- Quiet, non-threatening treatment room
- Friendly, calm, non-judgmental, attentive health workers
- Supportive attention from staff before, during, and after the procedure
- Clear explanations of what is happening
- Accurate assessment of the patient's baseline level of pain, anxiety, and current reserve (how exhausted she is)
- Accurate assessment of the anticipated procedure's impact on the patient's level of comfort (expected difficulty and duration of the procedure)
- Stabilization and relief of pain prior to the procedure if needed
- Timely application of pain control measures
- A gentle uterine evacuation
- Pain relief as needed following the procedure

## Specific Objective #11

### TYPES OF PAIN CONTROL MEDICATION

Effective pain control for MVA generally involves a combination of drug types accompanied by slow and gentle handling, reassurance, and clear communication.

**Anxiolytic:** depresses central nervous system functions (reduces anxiety and relaxes muscles).

**Analgesia:** eases sensation of pain.

**Light Sedation:** analgesics or anxiolytics of varying strengths used by themselves or in combinations to reduce pain, anxiety, and in some cases, memory.

**Anesthetic:** deadens all physical sensation.

### STEPS TO PAIN MANAGEMENT

The best approach to managing pain is to provide the patient with 1) verbal anesthesia, 2) oral analgesia, and 3) a paracervical block.

#### 1. Providing "Verbal Anesthesia"

Providers can help patients manage pain better through supportive treatment called "verbal anesthesia." To provide verbal anesthesia:

- Explain each step of the procedure **before** it is performed.
- Wait a few seconds after performing each step. This gives the patient time to prepare for the next one.
- Move slowly, without jerky or quick motions.
- Avoid saying things like "This won't hurt", when it will hurt, or "I'm almost done", when you're not.
- Tell the patient she should ask for additional pain medication if the pain becomes too strong. This partnership with the patient reduces fear by assuring her that she will not have to endure extreme pain.
- Talk with the patient throughout the procedure.

## Specific Objective #11

- Show patients how to take slow deep breaths to minimize the pain. Ask patients to breathe slowly in through their nose and out through their mouth to help them relax as they focus more on their breathing and less on the pain.
- Often it helps to tack a relaxing picture (beach, flower garden, etc.) on the ceiling to help the patient focus on something other than the procedure.

### 2. Oral Analgesia

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

- Paracetamol (acetaminophen) 300 mg with codeine 30 mg
- Ibuprofen 400-800 mg
- Paracetamol 500-1000 mg

**Note:** *Paracetamol with codeine can cause nausea as a common side effect. Aspirin is not recommended since it interferes with blood clotting.*

### 3. Local Anesthesia

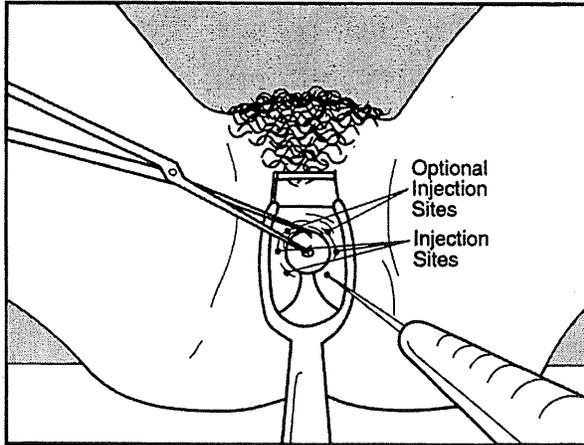
Local anesthesia interrupts transmission of sensations in local tissue only. In most MVA clinical situations, only analgesia and/or anxiolytic are necessary. However, when the cervix is not very open or when additional dilation of the cervix is needed, a local anesthetic may be used. The local used for 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 manufacturer of lidocaine recommends a maximum of 200 mg (20 ml 1% lidocaine) for paracervical block.

## Specific Objective #11

### 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 you plan to place the tenaculum (generally at 10 or 12 o'clock on the cervix). If the uterus is anteverted, 12 o'clock placement is best. If the uterus is retroverted, 6 o'clock works well. An alternative to aspirating is "tracking" the lidocaine, which means injecting the lidocaine slowly while moving the needle either in or out so no large amount of air can enter one spot or blood vessel.



**Injection Sites for Paracervical Block**

Source: IPAS

- 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.

### THE SUGGESTED DRUG COMBINATIONS FOR MVA

When using analgesia plus anxiolytic plus a paracervical block, the suggested drug combinations are as follows:

- **Oral:** Tramadol 50 mg, plus diazepam 10 mg, plus paracervical block.
- **IM:** meperidine 50-100 mg.
- **IV:** fentanyl (sublimaze 0.05-0.06 mg), plus midazolam (versed 0.5-1 mg), plus paracervical block.

### Timing the Administration of the Drug Combinations

To be sure that anxiolytics and/or analgesics will provide relief, it is important to give them at the correct time. IM medications will work best 15-30 minutes after the injection; oral medications have their maximum effect in 30-60 minutes.

## Specific Objective #11

### Complications of Narcotic Analgesics and Treatment

Narcotic analgesics can depress or even halt respiration. If the patient experiences severe respiratory distress:

- Assist respiration with Ambu bag and oxygen.
- Reverse pethidine, fentanyl, and other opiate analgesics with naloxone 0.4 mg IV. A second dose may be given if the patient does not respond to the first.
- Reverse benzodiazepines with flumazenil 0.2 mg IV.

### Complications of Local Anesthetics and Treatment

- **Toxic Reaction** (rare): Avoid by using the 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, respiratory depression), give immediate oxygen and give IV diazepam 5 mg
- **Allergic Reaction** (rare): **If hives or rash** present, give diphenhydramine (Benadryl) 25-50 mg IV. **If respiratory distress**, give epinephrine 0.4 mg (1:1000 solution) subcutaneously and support respiration.

## **Specific Objective #12: Demonstrate the PAC MVA procedure on an anatomical model**

### **THE PAC MVA PROCEDURE**

The MVA procedure is a relatively easy one; however, like all technical skills, it requires practice to perform well. Careful infection prevention techniques, a thorough pre-procedure assessment, management of pre-existing complications, good patient provider communication, and gentle, slow, procedural maneuvers are necessary for a safe MVA.

Remind the participants that “cutting corners” in the assessment may lead to more difficult procedures and higher complication rates. Refer the Px to “*Specific Objective # 5*” for the proper steps needed to assess the woman’s condition prior to the MVA.

It is crucial to use a “no touch” technique throughout the MVA procedure. The “no touch” technique requires that the provider not touch any instrument or part of equipment related to the MVA procedure (cannulae, dilators) that enter the uterus. For example, dilators are held by their mid-portions, and the physician does not touch the tips of the dilators or cannulae. It also means that these items do not touch any other object that might be contaminated. If it is necessary to touch one of the items that enters the uterus, it should be done with a sterile instrument.

**Patient assessment** prior to the PAC/MVA procedure **should include:**

- A medical history that concentrates on menstrual, contraceptive, and obstetric history.
- A physical exam, pelvic exam, and laboratory tests when appropriate and possible.

**A systematic and thorough assessment that includes a pelvic exam by the person who will be performing the procedure is the only way to determine the patient’s condition, as well as any appropriate or special precautions that are required.**

Before proceeding with MVA, the provider should:

- Revise and complete the clinical history (particularly those things that might affect the outcome of the procedures, such as reactions to anesthetics, prior pelvic surgeries, etc.).
- Treat and stabilize any complications.
- Evaluate the type of anesthesia, sedation, or analgesia necessary for the patient, as well as administer any other necessary medications. Medications must be given in the proper amounts and in a time frame adequate to provide pain relief (refer to *Specific Objective #5*).

- Prepare all equipment necessary for the procedure, including MVA syringe and cannulae, sterile speculum, tenaculum (or ring or vulsellum forceps), and sterile gloves, as well as any emergency medications, decontamination solutions, and antiseptics.
- Be sure the woman has emptied her bladder.
- Place the woman on a gynecological table with her feet in stirrups.
- Be sure the vulvoperineal area has been cleaned with soap and water. It is not necessary to shave the vulva.

## THE MVA PROCEDURE

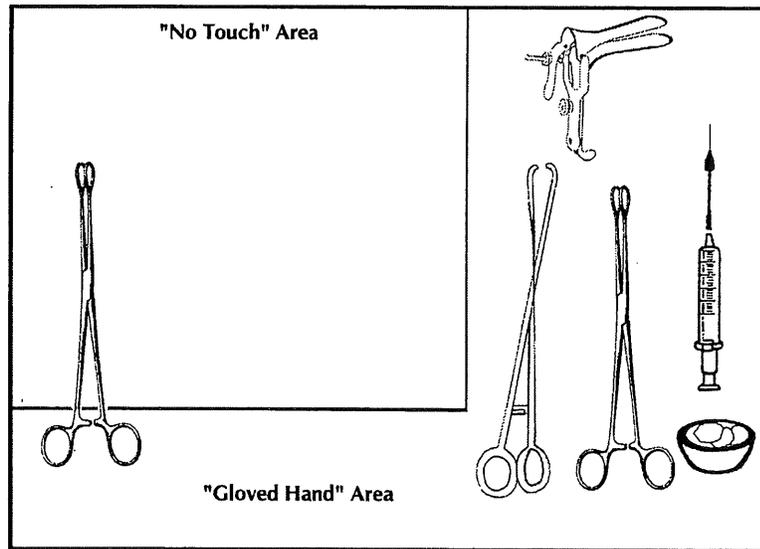
The MVA procedure occurs in 2 distinct phases. Phase 1, which we call the “metal phase” refers to the part of the procedure when you will be using a speculum, cleaning the cervix, and applying a tenaculum (and performing a paracervical block, if necessary). The “plastic phase” is the part of the procedure during which you will be using the plastic MVA equipment (syringe and cannula).

In order to practice the best infection prevention technique possible and decrease the risk of contamination, it is helpful to prepare the sterile instrument tray (a Mayo stand or table covered with a sterile drape or cloth) in two parts. One part, approximately 60% of the table, is absolutely “no touch.” You will touch nothing on this part of the table with your hands, whether you have on gloves or not. Use sterile instruments only to pick up things on the “no touch” area of the table. The items on the “no touch” part of the table consist of items that will go into the woman’s uterus. The other 40% of the table is the “gloved hand” part of the table. Items on this part of the table are things that will not go into the woman’s uterus. Items on the “gloved hand” part of the table must not touch the “no touch” area or items on the “no touch” area.

## Specific Objective #12

### MVA Procedure: Metal Phase

- Prepare the sterile instrument tray.



**Metal Phase**

Put the following material in the "no-touch" space:

- Ring forceps (except the handles).

Put the following materials in the "gloved hand" part of the tray:

- Handles of ring forceps.
  - Speculum.
  - Forceps for cleaning the cervix.
  - Tenaculum (or vulsellum forceps).
  - Syringe and needle extender (for paracervical block).
  - Cotton balls.
- Explain the MVA procedure to the patient.
  - Ask about any allergies to antiseptics or anesthetics.
  - Gently insert the speculum in an oblique direction. **Now that you have touched the woman's vagina, your gloves are no longer sterile.**

## Specific Objective #12

- Clean the cervix and vagina with antiseptic solution. (First ask the woman if she has any allergies to antiseptics.) You may use Hibitane (chlorhexidine), Savlon (chlorhexidine and cetrimide), or iodophors (Betadine). Holding a cotton ball soaked in the solution with a forceps, apply the solution to the cervix and vagina in a circular motion 2 or 3 times. If you have used an iodine solution, you will need to wait 2 minutes before continuing so that it can take effect.
- If you plan to perform a paracervical block, begin the paracervical block and allow time for the anesthesia to take effect before applying the tenaculum.
- Place a tenaculum at 10 and 2 o'clock on the cervix. Stabilize the cervix with the tenaculum and gently apply traction to straighten the cervical canal.

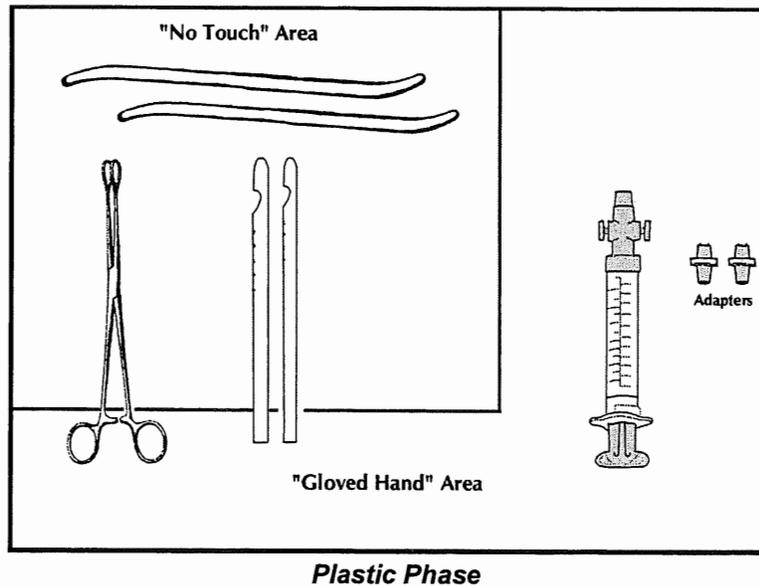
Often in postabortion MVA procedures, the cervix is already dilated from spontaneous miscarriage or from incomplete or unsafe procedures. However, the cervix may need to be dilated to allow for the passage of the cannula.

Tapered mechanical dilators such as Pratt, Hegar, or Denniston may also be used, but **the clinician must be extremely careful not to perforate the uterine wall or tear the cervix.** (For dilation using cannula, see below.)

## Specific Objective #12

### MVA Procedure: Plastic Phase

- Prepare the sterile instrument tray for the plastic phase.



Put the following materials in the "no-touch" space:

- Ring forceps (except the handles).
- Cannulae (except for the adaptor ends).
- Dilators.

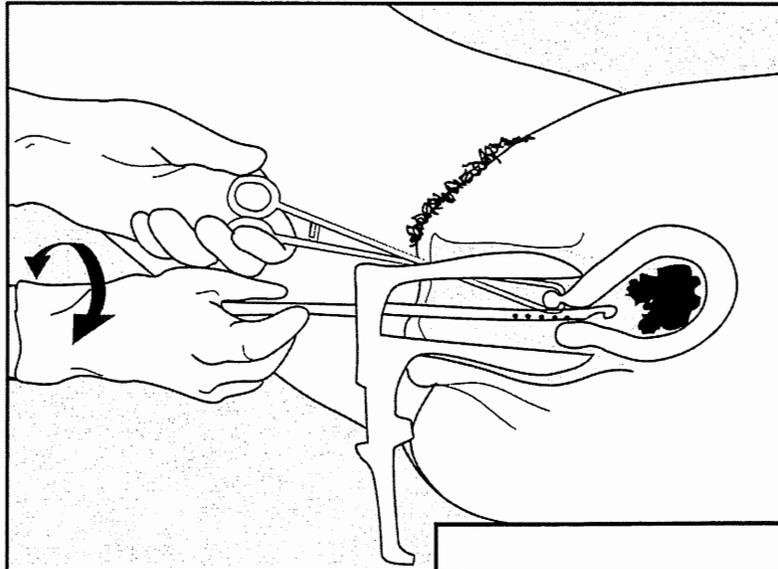
Put the following materials in the "gloved hand" part of the tray:

- Handles of ring forceps.
  - Adaptor ends of the cannulae.
  - MVA syringe.
  - Adaptors.
- Dilate cervix, if necessary. This can be accomplished by using tapered dilators or cannulae smaller than the one you plan to use for the procedure.
  - Do not touch the ends of the dilators or cannulae that are to be inserted into the uterus with your hands. Pick them up from the sterile tray with sterile forceps and handle them carefully to avoid contaminating the ends.
  - Apply steady traction to the tenaculum to straighten out the cervical canal and uterine cavity.

## Specific Objective #12

- Holding the dilator or cannula with fingertips, gently and slowly insert it through the cervix into the uterine cavity, just past the internal os. Do not insert to the level of the fundus.

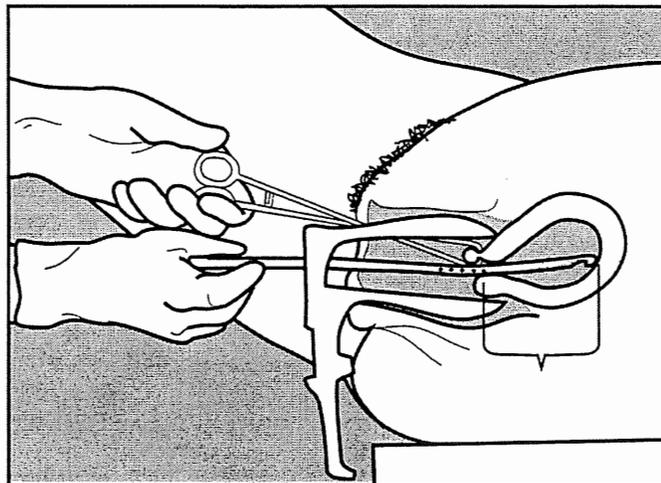
**Remember:** Rotating the cannula with gentle pressure often helps ease insertion.



*Inserting the Cannula*

Source: IPAS

- Continue with gradually larger sized dilators or cannulae until the cervix is sufficiently dilated to allow passage of an appropriate sized cannula.
- **When dilation is sufficient,** hold the cervix steady and gently apply traction to straighten the uterine axis so the uterus (regardless of original position) is straight. Slowly push the correct size cannula slowly into the cervical os. Gently rotate the cannula, and push the cannula slowly into the uterus until it touches the fundus. Note the uterine depth by the dots visible on the cannula. Then withdraw the cannula slightly.

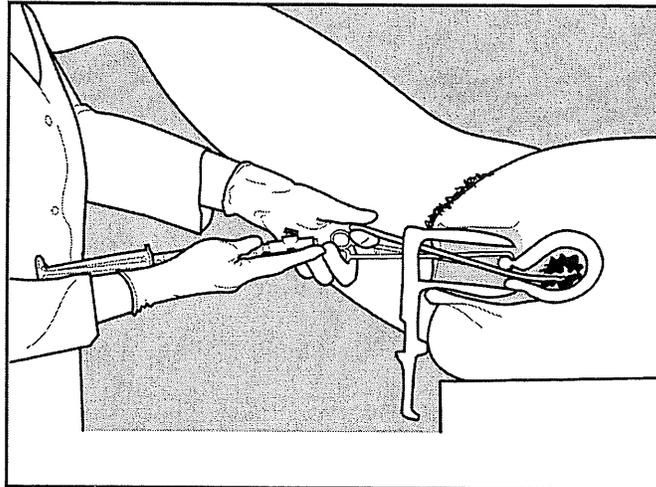


*Measuring the Uterine Depth*

Source: IPAS

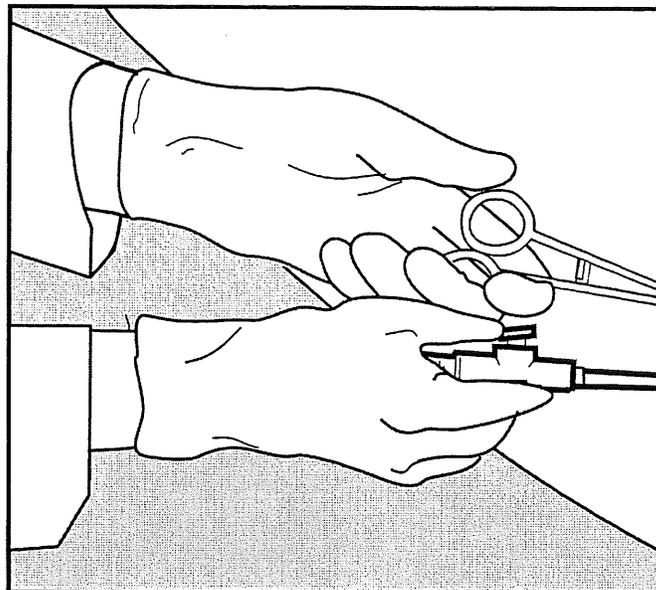
## Specific Objective #12

- Carefully attach the prepared syringe to the cannula, holding the end of the cannula and forceps or tenaculum in one hand and the syringe in the other. **Make sure not to push the cannula further into the uterus as you attach the syringe.**



**Attaching the Prepared Syringe to the Cannula**  
Source: IPAS

- **Release the pinch valve(s)** on the syringe to transfer the vacuum through the cannula to the uterus. Bloody tissue and bubbles should begin to flow through the cannula into the syringe.

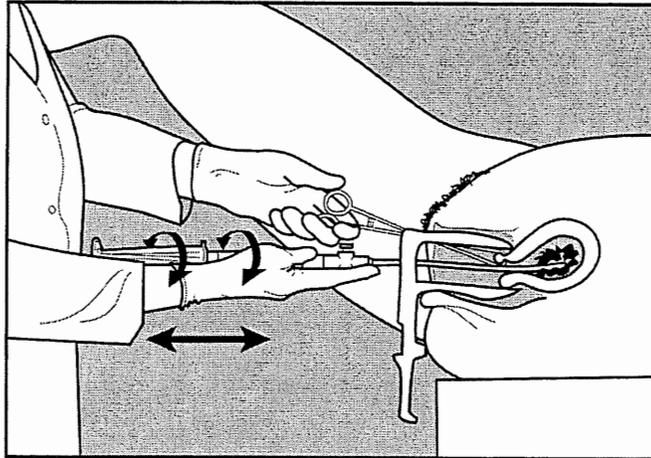


**Releasing the Pinch Valve**

Source: IPAS

## Specific Objective #12

- Evacuate the contents of the uterus by moving the cannula gently and slowly back and forth within the uterine cavity, rotating the syringe as you do so.



*Evacuating the Contents of the Uterus* Source: IPAS

- During the evacuation, the provider should:
  - Be careful not to withdraw the cannula opening beyond the cervical os. If you do so, you will lose the vacuum.
  - Be careful not to grasp the syringe by the plunger arms. This might unlock the plunger arms and push uterine contents back into the uterus.
- Check for signs of completion.
  - Red or pink foam is visible in cannula.
  - No more tissue is seen in cannula.
  - Gritty sensation is felt as cannula passes over the surface of the evacuated uterus.
  - Uterus contracts around (grips) the cannula.
- Withdraw cannula, detach syringe, and remove all instruments (cannula, tenaculum, speculum).
- Empty tissue and blood from the syringe into a glass receptacle.
- Place all instruments into decontamination solution.

## Specific Objective #12

- Where possible, strain and rinse the aspirated tissue to remove blood and clots before placing in a clear receptacle of clean water, saline solution, or weak vinegar. Inspect the tissue (villi, fetal membranes, endometrial tissue, and fetal parts (after 9 weeks LMP)). Hold the receptacle over a strong light. You may need to use a magnifying glass to see villi.

**Note:** Providers should use their own discretion regarding the appropriate time to inspect the aspirated tissue.

### Monitor Recovery (Uncomplicated Case)

- Take vital signs while woman is still on the treatment table.
- Allow woman to rest comfortably.
- Check bleeding at least once before discharge.
- Check to see that cramping has diminished. Prolonged cramping is not considered normal.
- If the woman is Rh negative, administer Rh immune globulin.

Before the woman leaves the facility she should be provided information about:

- Family planning services including counseling and initiation of a contraceptive method, if she wants to use one.
- Signs of normal recovery (some uterine cramping over the next few days, some spotting or bleeding that shouldn't be more than a normal period, a normal menstrual period occurring within 4-8 weeks).
- Symptoms that require emergency care (prolonged cramping lasting more than a few days, prolonged bleeding lasting more than 2 weeks, bleeding more than a normal menstrual period, severe or increased pain, fever, chills or malaise, fainting).
- Taking any prescribed medication.



*Inspecting Aspirated Tissue* Source: IPAS

## Specific Objective #12

- Not having sexual intercourse or putting anything into her vagina until after bleeding stops.

Many other reproductive health needs may be addressed at this time as well, such as screening for cervical cancer and identification and treatment of RTIs.

Patient may be discharged as soon as she is stable, can walk without assistance, and has received follow-up information.

### POSSIBLE TECHNICAL OR PROCEDURAL COMPLICATIONS DURING MVA

- Vacuum is lost.
- Cannula is clogged.
- Syringe fills up before procedure is finished.

#### Vacuum is Lost

In most MVA procedures, the syringe vacuum remains constant until the syringe is approximately 80% full (50 cc). However, **the syringe should be tested for vacuum**, and practitioners must know what to do if the vacuum is lost during the procedure.

**To test the syringe to see if it holds a vacuum before use**, close the pinch valve(s) and pull the plunger until the locking arms catch. Leave the syringe like this for 3 minutes then release the pinch valves. The rush of air you hear shows that the syringe held the vacuum.

**If you do not hear a rush of air, remove the plunger.** Check the o-ring for particles, and check both the o-ring and the syringe for cracks. If the syringe and o-ring appear intact, reassemble the syringe and lubricate the o-ring again (using only a drop or two of lubricant). Then repeat the test. **If the syringe still loses the vacuum, discard it.**

#### Loss of Vacuum During Procedure

Loss of vacuum during procedure can be caused by the syringe becoming full or the cannula being accidentally withdrawn from the cervical os.

#### If syringe is full:

1. Close the valve(s).
2. Disconnect the syringe from the cannula. Leave the cannula tip in place and do not push in the plunger.

## Specific Objective #12

3. Empty the syringe into the tissue receptacle by opening the pinch valve(s) and pushing the plunger into the barrel.
4. Reestablish a vacuum by closing the valve(s) and pulling back and locking the arms of the plunger.

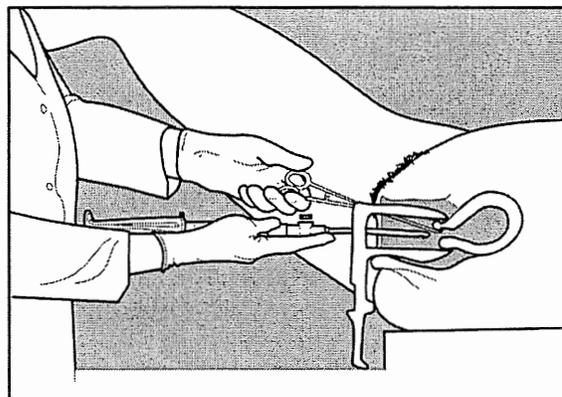
Carefully reconnect the syringe to the cannula, being sure not to push the cannula further into the uterus or to pull the cannula out of the cervix.

or

If your facility is equipped with many syringes, simply disconnect the full syringe (following the same steps above) and connect an empty syringe and complete the procedure.

### Vacuum Loss Due to Tip of Cannula Being Withdrawn From the Cervix and Into the Vaginal Canal

1. Withdraw the syringe and cannula, being careful not to touch the cannula to the vaginal walls or other non-sterile surfaces.
2. Close the pinch valve(s) of the syringe.
3. Detach the syringe from the cannula, empty the syringe, and reestablish a vacuum in the syringe.



*Withdrawing the Cannula*

Source: IPAS

4. Reinsert the cannula if it has not been contaminated. If contaminated, insert another HLD cannula.
5. Reconnect the syringe, release the valve(s), and continue the procedure.

### Cannula Clogged

If no tissue or bubbles are flowing into the syringe, the cannula may be clogged.

1. Remove the syringe and cannula, being careful not to let the cannula touch the vaginal walls or other non-sterile surfaces.

## Specific Objective #12

2. Examine the tip (openings or apertures) of the cannula. If there is anything blocking these openings, remove the material using a sterile forceps or a sterile gauze sponge. **Be careful not to contaminate the cannula.** If the cannula is contaminated, use a different cannula.

**Never try to unclog the cannula by pushing the plunger back into the barrel when the cannula is in the woman's body.**

## **Specific Objective #13: Demonstrate how to manage complications related to the MVA procedure**

**MVA** is a safe procedure with little risk of trauma to the cervix or uterus. However, some complications may occur during and immediately after MVA. Some may be related to unsafe, incomplete procedures that preceded the MVA. Others may be due to either the inexperience, lack of proper technique, or poor infection prevention practices of the MVA provider.

The following are possible medical and surgical complications related to the MVA procedure:

- Incomplete evacuation.
- Uterus is already empty. If POC has passed before MVA, bleeding may be due to other causes or ectopic pregnancy.
- Uterine or cervical perforation.
- Pelvic infection.
- Hemorrhage.
- Acute hematometra (postabortal syndrome).
- Air embolism.
- Neurogenic shock (fainting due to vagal reaction).
- Anesthetic reaction.

### **INCOMPLETE EVACUATION**

**Signs and Symptoms:** Symptoms include post-procedure bleeding, infection, pain, and cramping.

**Possible Causes:** Cannula was too small or was withdrawn before all POC were completely evacuated.

**Management:** Prevent by careful attention to signs of the completion of the procedure as well as careful inspection of POC; treat by repeating the procedure.

## Specific Objective #13

### EMPTY UTERUS

**Signs and Symptoms:** There are no POC in the uterus, and nothing comes out in the syringe.

**Possible Causes:** Complete passage of POC before the procedure, patient was not pregnant, or ectopic pregnancy.

#### **Management:**

1. Careful reassessment of recent bleeding, menstrual and contraceptive history.
2. A sensitive pregnancy test.
3. Ultrasound of the uterine cavity, cul-de-sac, and fallopian tubes.
4. Further management to be dictated by findings.

### **Ectopic Pregnancy**

Untreated ectopic pregnancy is a **life threatening complication**. Suspect an ectopic pregnancy if the uterus is empty, the pregnancy test is positive.

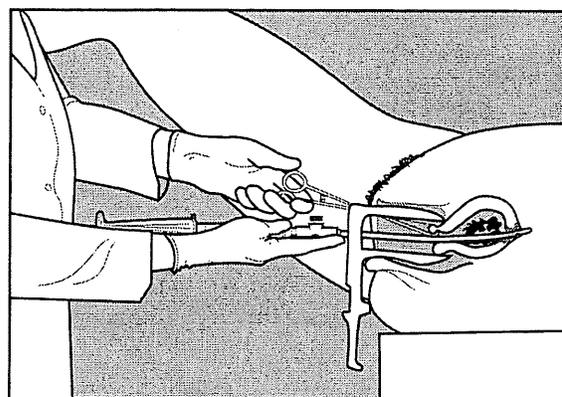
If an ectopic is suspected, the woman must be treated immediately with surgical or medical methods. Diagnosis of ectopic pregnancy can be confirmed with ultrasound especially transvaginal, if available. If your facility does not have the capability of treating an ectopic pregnancy, prepare the patient for emergency transfer to a facility that does have the capability.

## Specific Objective #13

### UTERINE OR CERVICAL PERFORATION

#### Signs and Symptoms:

- An instrument penetrates beyond the expected size of the uterus (based on bimanual examination).
- The syringe vacuum decreases with the cannula still inside the uterine cavity.
- The woman continues to bleed excessively after the uterine cavity is empty.
- If fat, bowel, or omentum is observed in the tissue removed from the uterus, the uterus has been perforated.
- The patient experiences atypical pain during or after the procedure.



Uterine Perforation

Source: IPAS

**Possible Causes:** Inadequate attention to uterine size and position, overly forceful dilation of the cervix, or excessive force during placement of the cannula in the uterine cavity or during aspiration of uterine contents.

**Management:** Prevention is the best treatment. Prevent perforation by doing a careful examination of the size and position of the uterus, using extreme care while dilating the cervix, and using slow, gentle movements during the MVA procedure. Management will depend on when the suspected perforation occurs and the severity of the patient's condition.

#### Management of Suspected Perforation Found After the Evacuation Is Complete

1. Begin IV fluids and antibiotics.
2. Give ergometrine (0.2 mg IM). Repeat as needed, up to 3 doses.
3. Observe for 2 hours. Check vital signs frequently, and make arrangements for possible referral.
  - a. If the patient remains stable and bleeding slows, give ergometrine (0.2 mg) and continue observation overnight.

## Specific Objective #13

- b. If the patient's condition becomes worse and the bleeding does not stop with an increased dose of either oxytocin or ergometrine, a laparoscopy or laparotomy may be necessary to locate and repair the source of bleeding. **If neither laparoscopy or laparotomy is available, refer to a facility where surgery is possible.**

### Treatment of Uterine Perforation Found During Evacuation

See treatment for uterine perforation in *Specific Objective #6, "Intra-Abdominal Injuries."*

- Stabilize, transfer, and refer or begin treatment as appropriate depending on level of facility, personnel, and material capability.
- Begin IV fluids and antibiotics.
- Check hematocrit. Arrange for blood transfusion or plasma volume expander if indicated.
- Complete evacuation under direct visual control (laparoscopy, mini-laparotomy, or ultrasound if available) to assess damage to pelvic organs and prevent further damage. If neither laparoscopy or laparotomy is available, refer patient to a facility where surgery is available.
- Repair damage as necessary by either coagulating bleeding vessels or suturing the defect. Make sure the bowel is intact and there is no injury to other abdominal organs.
- After surgery, give oxytocics and observe vital signs every 15 minutes for two hours.
- If patient becomes stable and bleeding slows, give ergometrine (0.2-0.5 mg IM) and observe overnight.
- **If patient's condition worsens, transfer to higher level of care.**

### PELVIC INFECTION

**Signs and Symptoms:** Development of fever, chills, and foul discharge that develops post procedure.

**Possible Causes:** Inadequate infection prevention procedures, pre-existing infection, or incomplete procedure.

**Management:** See *Specific Objective #6* for treatment of infection.

## Specific Objective #13

### HEMORRHAGE

**Signs and Symptoms:** Severe bleeding, pallor, and shock.

**Possible Causes:** Multiple causes can include perforation, incomplete evacuation, uterine fibroids, or atony.

**Management:** Treat for shock if necessary. Determine cause and source of hemorrhage and control bleeding. This may include the use of IV fluids, ergometrine (0.2 mg), and antibiotic coverage. See *Specific Objective #6* for management and treatment of bleeding.

### ACUTE HEMATOMETRA (POSTABORTAL SYNDROME)

**Signs and Symptoms:** Uterine distension due to continued intrauterine bleeding, uterine tenderness, fainting (vagal symptoms), and cramping that occurs from a few hours through 3 days following abortion. Rectal pressure is very common with hematometra and there is minimal to no vaginal bleeding.

**Possible Causes:** Blood flow from the uterus is blocked.

**Management:** Reevacuation of the uterus, ergometrine (0.2 mg IM), and uterine massage to keep the uterus contracted.

### NEUROGENIC SHOCK (VAGAL REACTION)

**Signs and Symptoms:** Fainting, slow pulse, slow respirations, and hypotension.

**Possible Causes:** May be due to overly forceful cervical dilation or rough scraping of the uterus. However, some women always faint when the cervix is dilated due to stimulation of the vagus nerve.

**Management:** Stop the procedure, apply smelling salts (spirit of ammonia) under patients nose, maintain an open airway, turn patient to side (to prevent aspiration of vomitus), and raise the patient's legs. Patient should recover. If not, maintain respirations, including artificial ventilation with bag and mask, begin IV fluids with large bore IV and isotonic saline or Ringer's Lactate, and add atropine 0.5 mg IV.

## Specific Objective #13

### ANESTHESIA TOXICITY

**Signs and Symptoms:** Mild effects include numbness of tongue and lips, metallic taste in mouth, dizziness or light-headedness, ringing in ears, or difficulty focusing eyes. Severe effects include sleepiness, disorientation, muscle twitching, slurred speech, tonic-clonic convulsions, loss of consciousness, respiratory depression or arrest.

**Possible Causes:** Usually too large a dose of lidocaine or intravascular injection of lidocaine.

**Management:** For mild effects, wait a few minutes to see if symptoms subside. For severe effects, keep the airway clear and give oxygen. Should convulsions occur give small increments (1-5 mg.) of diazepam intravenously. Administer CPR if no spontaneous breathing.

### ALLERGY TO ANESTHESIA

**Signs and Symptoms:** Hives, itching, rashes, and occasionally difficulty breathing.

**Possible Causes:** Some individuals have sensitivities to certain drugs or families of drugs.

**Management:** Prevent some reactions by checking drug allergies of patients. Rash, hives, and itching without swelling or difficulty breathing can be treated by administering an IV of 25-50 mg. diphenhydramine (Benadryl). Patient should be monitored for wheezing, swelling of lips and tongue, or shortness of breath. If the reaction is intense, or if any signs of respiratory distress occur, give 0.3 cc of epinephrine at a 1:1000 dilution subcutaneously. The dose can be repeated once and then given every 15-20 min. if symptoms recur. Protect the patient's airway, administer oxygen, and start IV immediately.

## **Specific Objective #14: Discuss the key issues related to postabortion contraception**

### **POSTABORTION CONTRACEPTION**

Women often receive little or no information on safe, available, effective contraceptives for postabortion use. All women receiving postabortion care need **counseling** and **information** to ensure that they understand:

- They can become pregnant again before their next menstruation.
- There are safe methods to prevent or delay pregnancy.
- How or where they can obtain contraceptives.
- How soon after abortion they should start using a contraceptive method.

Some women may want to become pregnant soon after having an incomplete abortion, and barring medical reasons, there is no reason to discourage them from doing so.

The majority of women receiving postabortion care do not want to become pregnant again in the near future, and it is important that the contraceptive needs of women are met during this critical period. When contraceptive needs are not met, women are forced into a dangerous cycle of repeat unwanted pregnancy and unsafe abortion.

**Postabortion contraception** is the initiation and use of family planning methods, most often immediately after treatment for abortion—within 48 hours, or before fertility returns (2 weeks postabortion). The objective is to prevent unintended pregnancies, particularly for women who do not want to be pregnant and may undergo a subsequent unsafe abortion if contraception is not made available during this brief interval.

#### **Postabortion Fertility**

Following a first trimester abortion (either spontaneous or induced), **a woman's fertility resumes almost immediately, and usually within 2 weeks.**

After second-trimester abortion, a woman's fertility usually resumes within 4 weeks.

#### **Factors that Limit the Provision of Contraception Following Postabortion Care**

- Providers may be unsure about which contraceptives are appropriate following an incomplete abortion.
- Providers providing postabortion care may not see contraception as their responsibility.

## Specific Objective #14

- Emergency PAC services may not be coordinated with FP services.
- PAC providers may not be trained to provide FP methods.
- Providers may not be aware that fertility can return soon after an abortion.
- Women may not be aware that fertility can return soon after an abortion.
- Women may not know where FP services are available.

### Appropriate Methods for Postabortion Patients

- Most methods can be used postabortion.
- Estrogen is not contraindicated.
- There may be medical conditions that affect the choice of a method such as:
  - Possible infection that makes IUD or sterilization not appropriate at this time.
  - Injury to the genital tract that makes IUD, sterilization, spermicides, diaphragm, or cervical cap inappropriate at this time.
  - Severe bleeding and related anemia.
- There may be some emotional considerations that affect the choice of a method, such as:
  - If the woman does not want to be pregnant soon, consider all temporary methods.
  - If the woman is under stress or in pain, temporary methods may be considered, but do not encourage use of permanent methods.
  - If the woman was using a method when she got pregnant, assess why contraception failed and try to find out what problems she might have using another contraceptive effectively.
  - If the woman has a partner who does not want her to use contraception, offer to talk with the partner. If she is unwilling to let you do this, discuss methods she can use without her partner's knowledge, such as injectables.
  - If the woman wants to become pregnant again soon, do not offer contraception. Refer her for other reproductive health care services.
- **Remember that a woman's preferences, constraints, and social situation may be as important in postabortion family planning as her clinical condition.**

## Specific Objective #14

### Opportunities for Providing Contraception Following Treatment of Incomplete Abortion

- The period following the treatment of incomplete abortion offers the provider and client an opportunity to explore family planning needs.
- Individual assessment of each woman should include: her personal characteristics, her clinical condition, the service delivery capabilities in the community where she lives, and where the services will be provided.
- Immediately following the treatment of incomplete abortion or before discharge, the woman's chosen family planning method may be provided.

**Note:** *Counseling should not be conducted during postabortion care procedures such as Manual Vacuum Aspiration or when the woman is in emotional or physical stress.*

The goal of **postabortion** counseling is:

- When appropriate, to help a woman understand the factors that led to the unwanted pregnancy, in order to help her avoid repeating the situation.
- To help each woman decide if she wants to use a contraceptive method.
- To help a woman, if she decides to use a contraceptive method, to choose an appropriate method.
- To prepare her to use the method effectively.

Remember, acceptance of contraception or of a particular contraceptive method should never be a prerequisite for obtaining reproductive health care.

There are key messages that women who come for postabortion care must understand before leaving the facility:

- The risk of repeat pregnancy is high. (Ovulation may occur as early as two weeks after an abortion in the first trimester, and 75% of women will ovulate within six weeks.)
- There are a variety of safe contraceptive methods that can be used to avoid pregnancy.
- Where and how to get family planning methods (at the time of treatment and after discharge).

## Specific Objective #14

As with all family planning counseling, the client will need to know:

- Advantages and disadvantages.
- Side effects and risks.
- How to use selected method(s) correctly.

### Which contraceptive should postabortion women use?

In general, all modern family planning methods can be used **immediately** after an abortion or postabortion care, provided:

- There are no severe complications requiring further treatment.
- The provider screens for any precautions associated with using a particular contraceptive method.
- The client receives adequate counseling.

**Note:** *It is recommended that women not have sexual intercourse until postabortal bleeding stops (usually five to seven days) and any complications are resolved. Natural Family Planning (NFP) is not recommended until a regular menstrual pattern returns.*

**Counseling women about methods of postabortion contraception must include assessment of their risk for contracting sexually transmitted diseases, especially HBV and HIV.**

**All women should be advised** that the only contraceptive methods that provide some protection against STDs are condoms, and, to a lesser extent, spermicides.

### SERVICE DELIVERY CAPABILITIES

- A woman's ability to use a method effectively is based, in part, on the resources of the community where she lives.
- To ensure continuity of care, health care providers must consider a woman's family planning needs in relation to the overall health care system.
- If a woman has traveled far from home for treatment of incomplete abortion or postabortion complications, it is important that family planning providers know what services she will have access to when she returns home in order to help her choose an appropriate method.

## Specific Objective #14

- Provider-dependent methods may not be the best choice for women with little or no access to ongoing care. Women with little access to a resupply of condoms or pills may find methods that do not require resupply their **only** workable option.
- Providers should be aware of how much a contraceptive method will cost a woman. This is a key factor in limiting the use of family planning.
- The high cost of services and methods can prevent women from having access to contraceptives and often influences their ability and willingness to use them.

## **Specific Objective #15: Develop a plan for introducing postabortion care services**

### **ORGANIZING POSTABORTION CARE (PAC) SERVICES THAT INCLUDE EMERGENCY CARE, COUNSELING, AND CONTRACEPTION**

1. Conduct a needs assessment of the health facility's services for the treatment of incomplete abortion.
2. Identify existing problems in providing an integral quality service for patients with incomplete abortion.
3. Identify human resources and materials available in the institution.
4. Develop a proposal to solve the problems identified.
5. Present an action plan to implement the proposal.

### **HOW TO CONDUCT AN ANALYSIS OF EXISTING SERVICES**

1. **Talk with the staff** at the facility, especially the head of the service providing maternity care, to assess the willingness to strengthen PAC services. The head of the maternity care service, especially in a hospital, can be instrumental in changing staff attitudes and practices toward improved PAC services.
2. **Analyze available data** from the catchment area around the facility, especially any data related to maternal morbidity and mortality.
3. **Go to the community.** Conduct interviews and focus group discussions with members of women's groups, traditional healers, and health workers based in the community. Try to obtain information about unsafe abortion, as well as information about how women perceive services at your facility and how services could be improved.
4. **At the facility level,** analyze data related to maternal deaths, specifically abortion related deaths. Analyze data related to maternal morbidity, especially abortion related morbidity and records of difficult cases, especially those related to complications of unsafe abortions.
  - Obtain general background information about the facility, its size, and location.
  - Gather information on client volume and the range of services provided, including information about the number of women coming to the facility for treatment of incomplete abortion.

## Specific Objective #15

- Gather information about the staff providing services at the facility and their level of training. Determine whether any of the staff has had experience as a trainer.
- Determine how the facility keeps track of services provided and information about patients. Observe the record keeping system and determine the presence or absence of treatment protocols, especially those related to postabortion care.
- Gather information on the physical aspects of the facility, including utilities, space for services, equipment, supplies, and commodities. Evaluate the facility's storage areas and systems available to track equipment and supplies.
- Collect information on the facility's physical capacity to provide training.
- Observe infection prevention practices and procedures to identify areas for improvement.
- Observe counseling as well as other aspects of interaction between patients and providers.
- Assess providers' clinical skills and performance in all aspects of postabortion care.

# **LIST OF ACRONYMS**



## List of Acronyms

**CBC** = Complete Blood Count

**DIC** = Disseminated Intravascular Coagulation

**D + C** = Dilation and Curettage

**Hb** = Hemoglobin

**HCT** = Hematocrit

**HBV** = Hepatitis B Virus

**HIV** = Human Immunodeficiency Virus

**HLD** = High Level Disinfection

**IAI** = Intra-Abdominal Injury

**IM** = Intramuscularly

**IV** = Intravenously

**LMP** = Last Menstrual Period

**MVA** = Manual Vacuum Aspirations

**PAC** = Postabortion Care

**PID** = Pelvic Inflammatory Disease

**POC** = Products of Conception

**PX** = Participants

**RTI** = Reproductive Tract Infection

**VA** = Vacuum Aspiration





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