



2010

Comprehensive Abortion Care

Training and Service Delivery Guidelines



Ministry of Health and Family Welfare
Government of India



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Ghulam Nabi Azad
Minister of Health & Family Welfare
Government of India
Nirman Bhavan, New Delhi - 110108

MESSAGE

Unsafe abortion is a significant yet preventable cause of maternal mortality in our country accounting for approximately 8 percent of the maternal deaths. Lack of accessibility to safe abortion services by qualified providers in hygienic settings is one of the important reasons for this.

It is necessary to accelerate the pace of reduction in maternal mortality to reach the goal of 100 per 1,00,000 live births by 2012. Recognising the fact that unsafe abortion is a major concern, providing access to safe abortion services in the public and private sector health facilities is one of the key focus areas under National Rural Health Mission. Keeping in mind legal and technological advances and operational issues and the need for updated and comprehensive guidance to implement the safe abortion strategy, an expert group was convened by the Ministry of Health & Family Welfare which has through an intensive consultative process prepared these guidelines titled "**Comprehensive Abortion Care - Training and Service Delivery Guidelines**".

These guidelines are the outcome of sustained efforts by this Ministry and other stakeholders. I am sure these will be useful to all the programme managers and service providers and will take forward the agenda of increasing access to high quality safe abortion services.

New Delhi
26.3.2010

(Ghulam Nabi Azad)

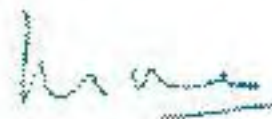
FOREWORD

During the last few years, the Government, through the National Rural Health Mission and under its umbrella the Reproductive and Child Health Program Phase II, has intensified its efforts to systematically improve the effectiveness of the public health sector and expand service delivery at primary health centres and village level. There has been a special emphasis and comprehensive approach to all components of reproductive health (RH) including maternal health (MH). The efforts are bearing results and we have seen a gradual decline of MMR from 398 in 1997-98 to 254 in 2004-06. However, we still need to continue to expand access and quality of services, especially at the peripheral levels as our maternal mortality is still at an unacceptable level. Eight percent of maternal mortality in our country occurs due to unsafe abortions which is one of the most easily preventable among all the causes of maternal mortality. Therefore, providing safe abortions is one of the key elements of our reproductive health strategy.

While guidelines pertaining to different components of abortion care are in existence, there is a strong felt need among service providers and health managers for updated and comprehensive guidelines on medical termination of pregnancy (MTP). The Ministry of Health and Family Welfare's Comprehensive Abortion Care (CAC) Training and Service Delivery Guidelines have been developed in response to this need. The guidelines have been developed to provide health workers with stipulations and guidance for reference during service delivery, improving service quality as well as to provide health administrators with standards to evaluate quality of care as well as checklists for monitoring and supervision.

While retaining the clinical perspective, these guidelines are more comprehensive and woman-centric. This helps service providers to take into account factors like the woman's personal circumstances and situation and provide respectful, confidential and high quality service.

We, at the Ministry of Health and Family Welfare consider the Comprehensive Abortion Care (CAC) Training and Service Delivery Guidelines as a dynamic document that needs continuous updating and improvement to keep pace with changes in medical technology and global best practices. We envisage that these guidelines would be useful to medical officers and programme managers in implementing effective and high quality services for safe abortion at every level of health care facilities.



Sujatha Rao
Secretary
Health and Family Welfare
Government of India

PREFACE

Availability of safe, effective and acceptable abortion-care services is one of the most important aspects of women's reproductive health. Over a period of 37 years, following the enactment of the Medical Termination of Pregnancy (MTP) Act, access to safe abortion services continues to elude many women in India. In an effort to increase the availability of safe abortion services, the Ministry of Health and Family Welfare, Government of India had published 'Guidelines for Medical Officers on provision of Manual Vacuum Aspiration at PHC level up to eight weeks'. The 'Guidelines for Medical Officers for use of RU-486 with misoprostol for early abortion in India' were also published by AIIMS-WHO-CCR. However, the need of the hour was to revise the existing guidelines on abortion services and develop a consolidated guidelines for comprehensive abortion care, which not only includes the clinical aspects of abortion but also other key elements of counselling and post abortion care, contraception, etc. that are required to provide women with the highest quality of care.

The Ministry constituted an expert group consisting of representatives from MoHFW's Maternal Health Division; Ipas; Indian Council of Medical Research; WHO-India; Parivar Seva Sanstha (PSS); the National Institute of Health and Family Welfare (NIHFW); Federation of Obstetric and Gynaecological Societies of India (FOGSI) and state representatives. The expert group through a series of consultations has developed these comprehensive abortion care guidelines for both first- and second-trimester abortions, with information on both medical and surgical methods of abortion.

The principles of the guidelines are to facilitate access to comprehensive abortion care for all women with the planning and provision of safe abortion services taking place within a woman-centred care model. This recognizes and respects the rights of women to control their reproductive lives and to make decisions that are based on their personal knowledge and experiences.

The purpose of these guidelines is:

- To assist those providing any aspect of abortion care in achieving or maintaining optimum standards of care, while acknowledging that there are often factors challenging the provision of these services, beyond the control of many providers.
- To assist in strengthening the current available abortion care services and improving the overall quality of care.
- To promote the concept of woman-centric care in the provision of abortion services.
- To be used for CAC training.

The guidelines, though not an exhaustive review, cover all key aspects of comprehensive abortion care, and are designed to serve as an easy on-the-job referral guide for service providers and health care managers.

I hope that these guidelines would assist all health care providers and programme managers in providing high quality, comprehensive abortion care in different health care facilities.



P. K. Pradhan

Additional Secretary and Mission Director
Ministry of Health and Family Welfare
Government of India

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Comprehensive Abortion Care (CAC) Training and Service Delivery Guidelines were meticulously developed through a consultative process by a large number of national experts. The development process included workshops and multiple reviews. The Ministry of Health and Family Welfare (MOHFW) would like to thank all the experts from the Ministry, state governments, medical colleges, non government organizations, professional organizations and individuals who contributed to the development of these guidelines, particularly to WHO-India who provided technical and financial support to the development process.

The vision and constant encouragement provided by Shri Naresh Dayal, erstwhile Secretary, Ministry of Health & Family Welfare, and by Ms. Sujatha Rao, the present Secretary, Health and Family Welfare enabled us to bring out these guidelines.

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Comprehensive Abortion Care (CAC) Training and Service Delivery Guidelines are designed to provide holistic knowledge in all aspects of abortion care including counselling, legal issues, abortion provision and post abortion contraception. We hope this document will help increase access to safe and women friendly abortion care for the women in our country.



23.3.10

Amit Mohan Prasad

Joint Secretary
Ministry of Health and Family Welfare
Government of India

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CHAPTER 1

Legal Aspects of Abortion Care

The Medical Termination of Pregnancy (MTP) Act, enacted in 1971, governs the provision of abortions or MTPs in India. This Act allows termination of a pregnancy up to 20 weeks, for a broad range of indications. The MTP Act also offers protection to a practitioner if he/she adheres to and fulfils all requirements under this MTP Act.

The Act was amended in December 2002 and the Rules, in June 2003.

An abortion is legal only when it fulfils the following conditions:

- A registered medical practitioner, who is allowed to terminate pregnancy as defined by the MTP Act, performs it;
- It is performed in a place approved to terminate pregnancy under the Act, and
- Other requirements of the Act like gestation period, consent, opinion of registered medical practitioner etc are fulfilled.

The MTP Act details the following:

Who can terminate a pregnancy?

Only a registered medical practitioner who possesses a recognized medical qualification as defined in the Indian Medical Council Act, 1956; whose name has been entered in a state medical register and who has such experience or training in gynaecology and obstetrics as prescribed by the MTP Rules made under this Act.

The Rules further prescribe that only those persons having the following experience or training can perform MTPs:

Up to 12 weeks gestation:

A practitioner who has assisted a registered medical practitioner in the performance of 25 cases of MTP of which at least five have been performed independently in a hospital established or maintained by the government or a training institute approved for this purpose by the government.

Up to 20 weeks gestation:

- A practitioner who holds a post graduate degree or diploma in obstetrics and gynaecology;
- A practitioner who has completed six months of house surgency (residency) in obstetrics and gynaecology;
- A practitioner who has at least one year experience in the practice of obstetrics and gynaecology at any hospital that has all facilities.

Consent Requirement

The consent of the woman whose pregnancy is being terminated is to be obtained in Form C (Annexure 1.1).

Only the consent of the woman is required to terminate the pregnancy. However, in case of a minor, or a mentally ill woman, consent of guardian¹ is required.

¹According to the MTP Act, "guardian" means a person having the care of the person of a minor or a mentally ill person.

When can a pregnancy be terminated?

Pregnancy can be terminated by a registered medical practitioner (under the MTP Act) if:

- The continuation of pregnancy involves risk to the life of the pregnant woman or of grave injury to her physical or mental health; or
- There is a substantial risk that if the child were born, s/he would suffer from such physical or mental abnormalities as to be seriously handicapped.

The anguish caused by the unwanted pregnancy in following situations is presumed to cause grave injury to the mental health of the pregnant woman:

- rape or incest
- failure of any device or method used by any married woman or her husband for the purpose of limiting the number of children.

For termination of pregnancy that exceeds 12 weeks but not 20 weeks of gestation, opinion of two registered medical practitioners is required (Annexure 1.2).

Where can a pregnancy be terminated?

MTP can be performed at the following places:

- A hospital established or maintained by Government;
- A place approved by Government or a District Level Committee constituted by that Government with the Chief Medical Officer or District Health Officer as the Chairperson of the Committee.

It should be noted that the District Level Committee shall consist of not less than three and not more than five members including the Chairperson, as the Government may specify from time to time.

Below are details of the composition and tenure of District Level Committee (DLC):

- One member of the DLC shall be the gynaecologist/surgeon/Anaesthetist & other members from the local medical profession, non-governmental organisations, and Panchayati Raj Institution of the district;


Provided that one of the members of the committee shall be a woman.

- Tenure of the committee shall be for two calendar years and the tenure of the non-government members shall not be more than two terms.

Medical Methods of Abortion*

In case of termination of early pregnancy up to seven weeks using mifepristone (RU 486) and misoprostol, the registered medical practitioner, as defined by the MTP Act, can prescribe the drugs at his/her clinic provided he/she has access to a place approved for terminating pregnancy under the MTP Act. The clinic should display a certificate to this effect from the owner of the approved place. In other words, the clinic where medical abortion drugs are prescribed by an approved registered medical practitioner, does not need approval as long as it has referral access to an MTP approved site.

*also referred to as Medical Abortion



Annexure 1.1

**CONSENT FORM
FORM C
(Refer Rule 9 MTP Rules, 2003)**

I _____ daughter/wife _____ aged about _____ years at present residing at _____ do hereby give my consent to termination of my pregnancy at _____

Place _____

Date _____

Signature

(To be filled in by guardian where the woman is a mentally ill person or a minor)

I _____ son/daughter/wife of _____ aged about _____ years, at present residing at _____ give my consent to the termination of the pregnancy of my ward _____ who is a minor/mentally ill person at _____

Place _____

Date _____

Signature

Annexure 1.2

**RMP OPINION FORM
FORM-1
(Refer Regulation 3 MTP Regulation, 2003)**

I _____
(Name and qualification of the Registered Medical Practitioner in block letters)

(Full address of the Registered Medical Practitioner)

I _____
(Name and qualification of the Registered Medical Practitioner in block letters)

(Full address of the Registered Medical Practitioner)

hereby certify that *I/we/ am/are of opinion, formed in good faith, that it is necessary to terminate the pregnancy of _____

(Full name of pregnant woman in block letters)

resident of _____

(Full address of pregnant woman in block letters)

for the reasons given below**.

* I/We hereby give intimation that *I/We terminated the pregnancy of the woman referred to above who bears the serial No. _____ in the Admission Register of the hospital/approved place.

Place : _____

Date : _____

Signature of the Registered Medical Practitioner

Strike out whichever is not applicable.

**of the reasons specified items (i) to (v) write the one which is appropriate;

- (i) in order to save the life of the pregnant woman;
- (ii) in order to prevent grave injury to the physical and mental health of the pregnant woman;
- (iii) in view of the substantial risk that if the child was born it would suffer from such physical or mental abnormalities as to be seriously handicapped;
- (iv) as the pregnancy is alleged by pregnant woman to have been caused by rape;
- (v) as the pregnancy has occurred as a result of failure of any contraceptive device or methods used by married woman or her husband for the purpose of limiting the number of children.

Note: Account may be taken of the pregnant woman's actual or reasonably foreseeable environment in determining whether the continuance of her pregnancy would involve a grave injury to her physical or mental health.

Place : _____

Date : _____

Signature of the Registered Medical Practitioner/Practitioners

CHAPTER 2

Counselling

'Counselling is a structured interaction in which a person voluntarily receives emotional support and guidance from a trained person in an environment that is conducive to open sharing of thoughts, feelings and perceptions'.

Every woman who seeks MTP services must be counselled. Providers, nursing staff/paramedical staff, counsellors (where available) may be appropriately trained to offer abortion related counselling services. Counselling is an integral part of safe abortion services and is as important as performing the procedure correctly. The process of decision-making may be difficult for her and she may need help. Counselling is also important to help the woman decide about using a temporary or permanent method of contraception to avoid another unwanted pregnancy which may lead to repeat termination of pregnancy. Wherever possible, spouse should also be counselled.

Care should be taken that women with complications of abortion are sensitively attended to at the facility without any prejudice.

I. Pre-procedure Counselling

Pre-abortion counselling is important for the following reasons:

- It helps the woman to decide about the termination of pregnancy;
- It ensures that the consent for the procedure is given after receiving the complete information about the procedure and understanding its implications;
- It helps the woman to adopt a contraceptive method after the procedure.

Following are the critical steps in pre- procedure counselling:

- i. Ensure that privacy and confidentiality are maintained during counselling.
- ii. Be non judgmental while interacting with the woman and be sensitive towards her needs.
- iii. Establish rapport with the woman and gain her confidence, as abortion is a very sensitive issue and the woman may be reluctant to discuss it. Building rapport is also critical for finding out whether there have been any attempts to terminate the present pregnancy as this is important for predicting likely problems and may affect management.
- iv. Make the woman feel comfortable mentally and physically. The former is extremely important as the woman may have strange feelings about terminating pregnancy.
- v. Identify the reason for termination of pregnancy by asking relevant questions related to personal, social, family and medical history and past use of contraceptive methods.



- vi. Use simple language and allow the woman to clarify doubts.
- vii. If the woman is convinced about termination of pregnancy, assess the woman for the MTP procedure.
- viii. If found eligible for MTP, explain the following in simple language:
 - Range of available options of MTP procedures based on gestation;
 - Procedure chosen by her;
 - Likely risks associated with the procedure;
 - Care after the procedure;
 - Immediate risk of pregnancy (within 2-6 weeks) if no contraceptive method is used;
 - When to return for follow up.

Involve the husband/accompanying person if the woman is comfortable.

- ix. Help the woman to sign the consent form.
- x. Discuss various contraceptive methods (Refer Annexure 2.1 - Post abortion contraceptive methods) including their mechanism of action, advantages and disadvantages.
- xi. Help the woman to choose a contraceptive method and assess whether the method chosen is appropriate (based on history and examination).



If the chosen method is not appropriate, explain the reason and help her choose another method.

If the method is appropriate, provide the method-specific information. In case the method is not available at the centre, provide information and other assistance for getting the appropriate service elsewhere.

If the woman is not willing to accept a contraceptive method:

- Do not refuse MTP, as the woman is likely to go elsewhere, probably to an illegal abortion provider, and suffer complications.
- Assure the woman that she won't be refused MTP.
- Wait for an opportunity to counsel her after the procedure. If she is still not willing to accept a contraceptive method, call her for follow up in a week's time and counsel again. Encourage her to bring her spouse.

MTP should not be denied irrespective of the woman's decision to refuse concurrent contraception.

- xii. Record the assessment findings, procedure, contraception or refusal to accept contraception and advice given (including referral).

Important notes for the counselor on post-abortion contraception

- Roughly 75% women ovulate and 6% conceive within 2-6 weeks after abortion, if they are not using contraception.
- All modern contraceptive methods can be safely provided immediately after the first trimester MTP (caution to be taken for second trimester abortions).
- The continuation rate for post-abortion insertion of IUD is good. Insertion of IUD immediately after first trimester MTP is not associated with higher risk of expulsion, infection or bleeding.
- Abdominal tubectomy can be safely performed concurrently with MTP. Laparoscopic ligation should be done only after first trimester MTPs.

II. Post-procedure Counselling

Post-abortion counselling is an integral part of the post-procedure care. It is as important as the pre-abortion counselling for the following reasons:

- It ensures that the woman has understood post- abortion care and what action to be taken in case of complications;
- It re-enforces the need for continuing the use of the contraceptive method chosen;
- It provides an opportunity to counsel for contraception in cases where the woman is not sure about accepting a contraceptive method.

Following are the critical steps in post-procedure counselling:

- Continue to ensure privacy and confidentiality, and an empathetic attitude.
- Enquire from the woman how she is feeling and reassure in case of any problems.
- Repeat the information about post-procedure care and ensure that the woman understands it fully.
- Repeat the potential effects/warning signs and what to do then.
- Call the woman for follow up in a week's time and counsel again if the woman does not accept any form of contraception. Encourage her to bring her spouse.

III. Counselling a woman who is being referred to a higher level of facility

It is important to explain the reason for the referral to the woman, spouse or relative accompanying the woman.

- Explain the reasons why the woman is being referred.
- Explain which facility (referral site) they should go to and explain the procedure that will be done at the referral site.
- Give a referral letter with details of history, physical examination and the reason for the referral. Request for feedback.
- Instruct the woman to report for follow up either at the referral site or the facility from where she has been referred.
- Record the referral.

Possible reasons for referral are included as part of the subsequent chapters, as appropriate.

IV. Counselling during a follow up visit

Counselling during a follow up visit provides an opportunity to ensure the continuation of contraception:

- Ask the woman about problems after abortion if any
- Ask the woman if she is comfortable with the contraceptive chosen.
- In case of a woman who had not accepted a contraceptive method, counsel for contraception again. Focus on the consequences of repeated abortions.
- If the woman was referred, find out about the procedure that was performed and if any contraceptive method was advised / given. If no contraceptive method was provided, counsel for contraception and help the woman to choose an appropriate method.
- Record findings/ advice.

Annexure 2.1

Post Abortion Contraceptive Methods			
Method	Timing After Abortion		Additional Advantages
	1st trimester	2nd trimester	
A. Barrier Methods			
Condoms	As soon as sexual activity is resumed	As soon as sexual activity is resumed	<ul style="list-style-type: none"> - No hormonal side effects - Can be used without consulting a health provider - Easily available - Prevention against STIs including HIV - Enables men to take responsibility of contraception
B. Intrauterine Device			
Intra Uterine Device (IUD) CuT200, CuT380, Multiload	Inserted after confirmation of a completed abortion using surgical/ medical method provided risk or presence of infection is ruled out	Can be inserted immediately after the procedure is complete.	<ul style="list-style-type: none"> - Highly Effective - Provides long term contraception - Can be provided by trained ANMs/nurses - No interference with sex - Immediate return to fertility - No effect on quality or quantity of breast milk
C. Hormonal Contraception			
Oral Contraceptives	Immediately after abortion using surgical method. For MMA, it can be started on day 3 with the dose of misoprostol or on day 15 after confirmation of a completed abortion	Immediately after abortion using surgical method.	<ul style="list-style-type: none"> - Regulates menstrual cycles - Can be provided by non physicians - No interference with sex - Offer protection against ectopic pregnancy, endometrial & ovarian carcinoma and benign breast diseases like fibrocystic and fibroadenomatosis disease

Post Abortion Contraceptive Methods			
Method	Timing After Abortion		Additional Advantages
	1st trimester	2nd trimester	
C. Hormonal Contraception			
Long term Injectables - DMPA, NET-EN	Immediately after abortion using surgical method. For MMA, it can be started on day 3 with the dose of misoprostol or on day 15 after confirmation of a completed abortion. May be appropriate if the woman wishes to delay choice of long term method.	Immediately after abortion using surgical method.	<ul style="list-style-type: none"> - Highly Effective - Confidential - Can be provided by ANMs/nurses - No interference with sex - No effect on the quality and quantity of breast milk - No oestrogenic side effects - Offers protection against ectopic pregnancy, ovarian cancer, iron deficiency anaemia and uterine fibroids
D. Natural Family Planning Methods			
Fertility awareness based methods i.e. periodic abstinence, rhythm method, calendar method	After normal menstrual cycles are resumed	After normal menstrual cycles are resumed	<ul style="list-style-type: none"> - Can be used without seeing a health provider - No supplies of any kind needed by user
E. Permanent Methods			
Female Sterilisation	Can be performed immediately after an abortion in the absence of any infection or severe blood loss (both minilap and laparoscopic sterilisation can be done).	Minilap tubal ligation can be performed immediately after an abortion in absence of any infection or severe blood loss (but not laparoscopic).	<ul style="list-style-type: none"> - Permanent - Highly effective - Effective immediately - No interference with sex - No effect on breast feeding - No long term side effects - Offers protection against ovarian cancer
Vasectomy	Performed on males only, independent of the abortion procedure on the woman		<ul style="list-style-type: none"> - Very Effective - Permanent - No interference with sex - No clinic visits required, no supplies to get - No long term health risks

Annexure 2.2

Challenging situations during counselling for comprehensive abortion care (CAC).

Following are some of the challenging situations that counsellors may face during abortion counselling and some suggestions to overcome them:

The woman is silent

- If the woman is silent at the start of the meeting, you could say, "I can see that it is difficult to talk. It's often that way for some women. I wonder if you are feeling a little anxious." Look at the woman and use body language that shows empathy and interest. Wait.

During discussion, silence can be okay. Sometimes the woman is thinking or deciding how to express feelings or thoughts. Give the woman time to think.

The woman cries

- A woman may cry for different reasons - to express sadness, to get sympathy, or to stop further discussion. Do not assume why the woman is crying. Wait for a while, and, if crying continues, say that it is alright to cry, it is a natural reaction. This permits the woman to express the reasons for crying. It is okay to ask the reasons gently.

The counsellor cannot see a solution to the woman's problem

- The counsellor too may feel anxious if he/she is not sure what to advise. The counsellor is a reproductive health expert but does not have to solve every problem for the woman. Express understanding. Sometimes this is what the woman really wants. Also, suggest others who could help.

The counsellor does not know the answer to a woman's question

- Say honestly and openly that you do not know the answer but you can try to find out for her. Check with a supervisor, a knowledgeable co-worker or reference materials, and give the woman the accurate answer.


The counsellor makes a mistake

- Correct the mistake and say you are sorry. It is important to be accurate. It is not important to look perfect. Admitting a mistake shows respect for the woman.

Be honest. The more honestly you express your own feelings when appropriate (without revealing your personal life), the easier for the woman to do the same.

Counsellor and woman already know each other

- Ensure confidentiality and privacy.
- If the woman wishes, arrange for another counsellor.



The woman asks a personal question

- In general, try not to talk about yourself. You do not have to answer personal questions. The relationship between a woman and a counsellor is a professional one, not a social one. It can sometimes help to talk about your own experience or describe what happened to someone else, without using names or identifying them as other women. Sometimes the woman asks if the counsellor had the same problem. It is best not to say yes or no. Instead, you can say something such as, "I'm familiar with this kind of situation. Please tell me more."

The woman wants the counsellor to make the decision

- This woman may actually be asking for help. You can ask questions such as: "You seem to be having trouble reaching a decision. Perhaps you are not quite ready? Would you like to discuss this further? Do you need more information? Would you like to talk this over with someone else perhaps your spouse or your parents?"

You can say, "I can answer your questions and help you think about your choices, but you know your own life best. The best decisions will be the decisions you make yourself."

CHAPTER 3

Clinical Assessment

Clinical assessment for eligibility to undergo termination of pregnancy is critical to avoid complications while providing abortion services. The assessment helps to identify the woman who needs referral for the procedure at a higher level of facility which is better equipped and can handle complications, if any.

Clinical assessment provides the following information:

- Confirmation of pregnancy
- Exact period of gestation
- Woman's general health condition
- Associated gynaecological disorders and infection
- Associated medical problems

Clinical assessment allows the provider to help the woman in determining the best available options for her.

Components of clinical assessment

- a) History taking
- b) Physical examination
- c) Pelvic examination
- d) Laboratory investigations

Note: The assessment must be conducted in a place where the woman and the provider cannot be seen or heard by others.

a) History Taking

The following should be included in the history:

- i. Personal details: age, religion, address;
- ii. Menstrual history: length & duration of cycle, flow (excess or normal), LMP;
- iii. Obstetric history: Parity, live births, abortion (induced and spontaneous), previous caesarean section (if any), last child birth/ abortion;
- iv. History of any interference/drugs taken in this pregnancy to attempt termination;
- v. Contraceptive history: type of contraceptive used, how long;
- vi. Status of tetanus immunization: last dose received;
- vii. Psychosocial assessment to assess family support;
- viii. Sexual/ domestic violence;
- vii. Medical history should include the following:
 - hypertension,
 - heart disease,

- renal disease,
- diabetes mellitus,
- epilepsy,
- asthma,
- drug allergies, and
- bleeding disorders.

(Refer: Annexure 3.1: MTP in women with various medical conditions)

b) Physical Examination

- General Examination
 - Check pulse, blood pressure, and temperature if indicated
 - Look for pallor/ icterus
- Systemic Examination
 - Examine chest and cardio vascular system
 - Examine abdomen for abdominal mass, scars and distension. Check for rigidity and rebound tenderness.

c) Pelvic Examination

Before starting the pelvic examination, inform the woman and take verbal consent from her. Also, ensure that:

- Privacy is maintained
 - Equipment is ready
 - Woman has emptied her bladder
- Examination of External Genitalia
 - Inspect the external genitalia: labia majora, minora and introitus for redness, ulcer, growth, warts, swelling and discharge.
 - Speculum Examination
 - Inspect the vagina and cervix for ulcer, foul smelling discharge and bleeding
 - If there is an erosion, cervix bleeds on touch, or a growth, refer to a specialist
 - If there is any evidence of infection, perform the procedure under antibiotic cover

iii. Bimanual Examination

This is one of the critical steps, helpful in comparing the size of the uterus to the period of amenorrhea. During bimanual examination:

- Feel the cervix for consistency and tenderness on movement. A soft cervix is indicative of pregnancy. Tenderness on movement is indicative of pelvic inflammatory disease (PID) or ectopic pregnancy.
- Feel the position of the uterus (whether anteverted or retroverted) and assess the size of the uterus. Also feel for shape, consistency and mobility of the uterus.



- Feel through the fornices for adenexa (ovary and fallopian tube). Tenderness in the adenexa or mass felt in the adenexa is indicative of PID or ectopic pregnancy. Such cases should be referred/ treated in appropriate higher level of facilities.

Caution should be exercised in the following situations:

Uterine Size	Possible Conditions	Line of Action
Bigger than expected but has smooth and soft surface	<ul style="list-style-type: none"> - Molar pregnancy - Multiple pregnancy - Wrong dates 	USG if available or refer to a appropriate centre
Bigger than expected, irregular and firm	Presence of fibroids with pregnancy	USG if available or refer to an appropriate centre
Smaller than expected	<ul style="list-style-type: none"> - Wrong dates - Non pregnant uterus - Ectopic pregnancy 	USG if available or refer to an appropriate centre

Establishing the period of gestation may be difficult in cases of:

- The woman does not remember date of last menstrual period
- Conception during lactational amenorrhea
- Wrong dates provided intentionally by the woman
- Missed or incomplete abortions

d) Ultrasound Examination and Ectopic Pregnancy

Ultrasound may be helpful for accurate dating when there is a discrepancy in the size of the uterus by LMP and bimanual examination. However, this test is not a mandatory requirement for the provision of MTP. Where it is available, it can also be used to detect ectopic pregnancies along with quantitative β HCG measurements. Since it is an obstetric USG, it must be done in accordance with PCPNDT Act.

e) Laboratory Investigations

- Haemoglobin
- Urine for albumin and sugar
- Blood group/ Rh (wherever possible)

Give routine antibiotics to reduce post procedure infection. However, abortion should not be denied if prophylactic antibiotics are not available. In case of existing infections, samples should be taken for culture for a final diagnosis of the type of infection.

ABO and Rh Determination:

All primigravidas and women for second trimester MTPs must be tested for ABO and Rh blood grouping. For multigravidas it should be done wherever feasible. All Rh-negative women should preferably be advised/ administered Anti D immediately after the abortion procedure or within 72 hours of the procedure, the dose of which for first trimester MTP will be 50 mcg and second trimester MTP will be 300 mcg.

Annexure 3.1

MTP in women with various medical conditions

Condition	Comments
Hypertension	Avoid use of ergometrine in hypertensive women for treatment of postabortal atony and bleeding, especially in women with blood pressure greater than 160/100. Give injection oxytocin 10 units I/M instead.
Seizure disorder	The woman should take her usual dose of anti-seizure medication on the day of the abortion procedure. Several anti-epileptic drugs interfere with some forms of combined hormonal contraception.
Anaemia	If very low haematocrit or haemoglobin, be prepared to treat appropriately. In cases of Hb < 7gm%, MTP should be done at a higher centre with appropriate facilities.
Blood-clotting disorders	Refer a woman with clotting disorder to an appropriate higher facility with EMOc services, including blood transfusion.
Diabetes	High blood-glucose levels are not dangerous, but ketoacidosis should be avoided. Insulin dose will probably not be changed if procedure is performed under local anaesthesia.
Heart disease	Refer to an appropriate higher facility
Asthma	Some prostaglandins (PGF2 alpha) should be used with caution in asthmatics in case of post-abortion atony; PGE1 and PGE2 (Prostin) can still be given. The woman should be stable and not having an acute asthmatic attack prior to procedure.
Alcohol or drug abuse	Higher dose of the drug may be required. Consider use of narcotic analgesic and parenteral sedative.

CHAPTER 4

Infection Prevention

Universal Precautions

The essentials of infection prevention in MTP procedure is same as that applied to any condition involving surgical intervention and helps to minimise infection due to micro-organisms and to prevent transmission of Hepatitis B & C, STIs and HIV.

Universal precautions for infection prevention should be understood and applied by all medical and paramedical staff involved in providing MTP services. There should be frequent monitoring of staff for adherence to protocols related to infection prevention.

Elements of Universal Precautions

All health care workers, regardless of their presumed infection status or diagnosis, should follow all the universal precautions¹.

The following are the basic elements of universal precautions:

- a) Hand washing
- b) Personal protective barriers
- c) Aseptic technique
- d) Handling of sharp items
- e) Instrument processing
- f) Waste disposal



Figure 2: Handwashing

a) Hand Washing:

Hands should be washed thoroughly with soap and running water before and after each contact with the woman including when carrying out the procedure. While washing hands, you should:

- Rub both hands together and between fingers, nail beds, wrist to facilitate better cleaning;
- Use running water through washbasin and tap or container/ bucket with mug, to enable better cleaning of hands;
- Air dry hands or use a clean personal towel/paper tissue if available.

b) Personal Protective Barriers:

Personal Protective Barriers should be used to protect both yourself and the woman from the risks of cross-infection. This includes items like gloves, plastic aprons, gowns, masks, head gears and eye covers (glasses). Gloves should be worn whenever there might be contact with blood and body fluids, mucous membranes or non-intact skin. They are not a substitute for hand washing. They should be put on immediately before the task to be performed, and then removed as soon as the procedure is completed. Hands must always be washed following their removal.

¹It is advisable that health care personnel refer to the National Guidelines on Infection Management and Environmental Plan (IMEP)

c) Aseptic Technique

Strict asepsis must be observed during operative procedure. Use antiseptic lotion like Betadine/Savlon to clean the cervix and external genitals.

Use the 'No Touch Technique'. Ensure that any instrument/ part of the instrument that goes inside the cervical canal does not touch any non sterile object/surface prior to insertion.

d) Handling of Sharp Items

It is vital that sharp items like syringes, needles, scissors etc. used during the procedure be handled with great care to avoid chances of injury by them. To ensure safety with sharp items:

- Avoid recapping, bending or breaking of needles after use
- Support staff should wear thick utility gloves while handling instruments, especially during cleaning process and disposal
- Put all needles in a puncture proof container after use.

In spite of the best efforts, if accidentally exposed to needle pricks, cuts or blood/ body fluids:

- Allow the exposed area of the skin to bleed briefly;
- Immediately flush with clean running water;
- Wash wound and skin thoroughly;
- Give post-exposure prophylaxis within 72 hrs of injury, if available .

e) Instrument Processing

Ensure that instruments/equipments used during the procedure, be processed adequately for reuse.

For rubber gloves and metallic instruments:

Autoclave at 121 degree centigrade under a pressure of 15 lb./sq. inch for 20 minutes.

Or

Boil in a covered container/boiler for 20 minutes. Ensure that the instruments are completely immersed in water. Remove with HLD forceps and air-dry on HLD tray.

For glass syringes and needles:

Autoclave or boil and air-dry as above. Do not use chemical disinfectant.

After sterilisation/HLD, store in covered trays, sterilised or disinfected under HLD.

(Note: The instrument processing steps for various technologies are discussed along with the procedures in different sections.)

f) Waste Disposal

After completing the procedure, infectious and non infectious waste should be segregated.

Infectious waste should be decontaminated and collected in different colour coded bags (if available):

- Yellow bags for anatomical waste, for example, placenta, POC etc.

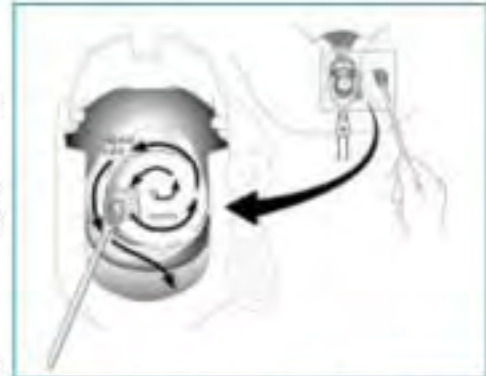


Figure 3: Cervical Antiseptic Preparation

- Red bags for infectious plastics, for example, syringes, gloves etc.
- Puncture proof blue/ white bag for sharps, for example, needles, cut glass etc.

Non-infectious general waste such as paper, glove covers etc is collected separately in a green/ black bag.

Disposal of waste can be done in one of the following ways:

- **Infectious waste**
 - Anatomical waste in yellow bag is to be disinfected with bleach solution and then either sent for incineration or deep burial.
 - Plastic waste including syringes, gloves etc is to be mutilated/ shredded followed by disinfection with bleach solution and then disposed in the municipal waste dumps.
 - Sharps in the white/ blue bag are to be disinfected with bleach solution and dumped in the sharps pit.
- **General, non-infectious waste can be disposed in the municipality waste bins.**

CHAPTER 5

Vacuum Aspiration Techniques for Medical Termination of Pregnancy in First Trimester

I. Overview

This section provides an overview of terminating pregnancies during first trimester using vacuum aspiration methods, its indications and contraindications and provider, facility and equipment requirements. It also explains the specific steps involved in conducting an MTP procedure using the two vacuum aspiration techniques - Manual Vacuum Aspiration (MVA) and Electric Vacuum Aspiration (EVA), along with the possible complications and their management.

II. Introduction to Vacuum Aspiration

a) Description

Vacuum aspiration is a method by which the contents of the uterus are evacuated through a plastic or metal cannula that is attached to a vacuum source. The term vacuum aspiration includes both Manual Vacuum Aspiration (MVA) and Electric Vacuum Aspiration (EVA).

b) Gestation Limit

Vacuum aspiration is a safe and simple technique for termination of pregnancies up to 12 weeks of gestation.

c) Safety and Efficacy

Various studies have demonstrated that vacuum aspiration is very safe and an effective technique for first trimester abortion, and is successful in over 98% of cases.

Specific safety benefits of vacuum aspiration include a significantly reduced necessity of cervical dilatation, a reduced risk of cervical injury or uterine perforation, a reduced risk of infection and a reduction in blood loss, all resulting in a reduced need of anaesthesia and a shortened hospital stay.

The rates of major complications of conventional dilatation and curettage (D&C) are two to three times higher than those of vacuum aspiration. Following are the advantages of vacuum aspiration over dilatation and curettage:

S.No		Vacuum aspiration (VA)	D&C
1.	Incidence of excessive bleeding, cervical and vaginal injury, uterine perforation	Lesser	2-4 times higher than VA
2.	Dilatation required for the procedure	Lesser	Greater
3.	Pain control medication	Lower level	Higher level
4.	Recovery period and hospital stay	Lesser	More
5.	Post procedure bleeding	Lesser	More

Acknowledging the superior efficacy and safety of vacuum aspiration over conventional D&C, a joint recommendation by WHO and FIGO states that properly equipped hospitals should abandon curettage and adopt manual/ electric aspiration methods.

d) Provider's Eligibility

Any provider who is recognized by the MTP Act 1971 as a registered medical practitioner entitled to terminate a pregnancy can use vacuum aspiration to perform the MTP procedure.

e) Provision of services at different levels of health care

Different levels of public sector health facilities can use vacuum aspiration to provide MTP services for pregnancies up to 12 weeks². For all other private sector/NGO facilities, approval in accordance with the MTP Rules permits use of vacuum aspiration up to 12 weeks.

III. Indications, Contraindications and Special Precautions

a) Indications for using vacuum aspiration

Vacuum aspiration can be used for:

- Induced abortion of up to 12 weeks gestation/uterine size;
- Incomplete abortion of up to 12 weeks gestation/uterine size;
- Missed abortion;
- Hydatidiform Mole; and
- Removal of decidua with surgical removal of an ectopic pregnancy.

b) Contraindications for vacuum aspiration

Vacuum aspiration cannot be used in cases of:

- Presence of acute cervical, vaginal or pelvic infection;
- Suspicion of perforation (from a previous interference); and
- Suspicion of ectopic pregnancy.

c) Special Precautions

The conditions listed below are not contraindications for using vacuum aspiration. However it is advisable to exercise special precautions while performing vacuum aspiration in these cases and have the procedure undertaken by specialists in facilities capable of managing potential complications.

- Adolescents;
- Nulliparous women;
- Cervical stenosis;
- Pregnancy with uterine fibroids; and
- History of caesarean section or uterine surgery.

²PHCs are advised to perform vacuum aspiration for MTPs only up to eight weeks of gestation.

- Medical disorders such as:
 - Anaemia with haemoglobin below 8 gms;
 - Bleeding disorders;
 - Hypertension;
 - Heart disease;
 - Renal disease; and
 - Diabetes Mellitus.

IV. Infrastructure required for vacuum aspiration procedure

Please refer to chapter 8 on Infrastructure, Essential Equipment, Drugs & Supplies.

Referral Linkage

Primary and the secondary health care facilities should have an identifiable referral linkage and access to transport arrangements to shift the woman to the next level of care, if required.

It is important to explain the reason for the referral to the spouse or relative accompanying the woman. Give a referral letter with details of history, physical examination, reports of investigations, procedure conducted and reason for referral. Record the referral.

V. Counselling for Vacuum Aspiration Procedure

Counselling is an integral part of the safe abortion service. In addition to the general counselling recommended for MTP procedures (please refer to chapter 2 on 'Counselling'), the provider, before performing a vacuum aspiration procedure needs to give the following additional information to a woman:

- The woman may be awake during procedure depending on the use of anaesthesia.
- Pain relief will be given using oral analgesics and local anaesthesia with sedation or general anaesthesia used selectively when indicated.
- Occasionally vacuum aspiration may be performed without the use of anaesthesia in cooperative multiparous women. Adequate counselling is important in such cases.
- The procedure will be completed in about 10 -15 minutes.
- The woman can leave the health facility when she feels fit (usually in ½ -1 hour) if done under local anaesthesia.

VI. Equipments for Vacuum Aspiration

Vacuum aspiration can be performed using either MVA or EVA. The primary difference between the two vacuum-aspiration options is the source of the vacuum: Manual Vacuum Aspiration (MVA) uses a hand-held, portable aspirator, whereas Electric Vacuum Aspiration (EVA) employs an electricity operated device which is referred to as the EVA or suction machine.

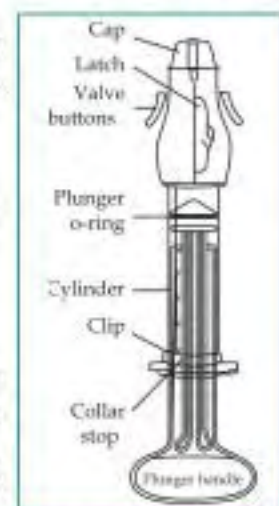


Figure 4: MVA Plus Aspirator

a) Manual Vacuum Aspiration (MVA)

In an MVA procedure, a hand-held plastic aspirator providing a vacuum source is attached to a cannula and hand-activated to suction out the uterine contents. MVA aspirators are essentially of two types: single valve (also referred to as the menstrual regulation/MR syringe) and double valve aspirators.

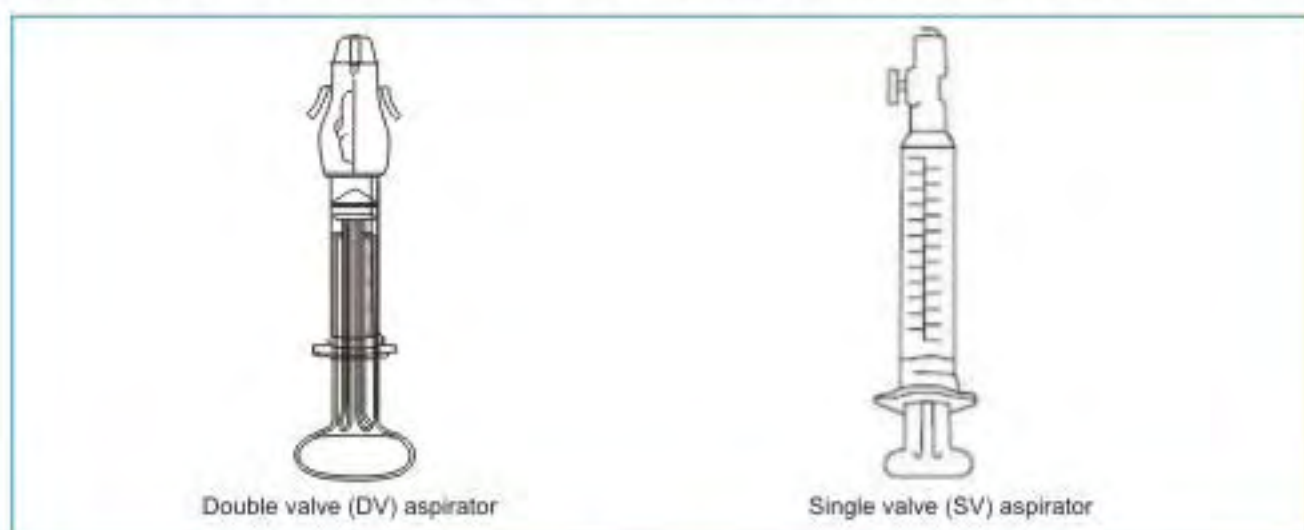


Figure 5: Two types of MVA equipment

Key features of the two types of MVA equipment are given in the table below:

Features	DV Aspirator	SV Aspirator
Capacity	60 cc.	50 cc
Negative pressure	26 in of Hg / 660 mm	26 in of Hg / 660 mm
Cannula size used	Up to 12 mm.	Up to 6 mm.
Vacuum maintained	Till 80 per cent full	Till 50 per cent full
Material used for valves	Silicone	Latex (exposed externally)
Sterilisation option	Chemical sterilisation Boiling Autoclaving	Chemical sterilisation

b) Electric Vacuum Aspiration (EVA)

EVA uses an electric pump or suction machine attached to a cannula to evacuate uterine contents. Because the initial cost of an EVA machine is high, EVA is typically used in centralised settings with higher caseloads.



Figure 6: EVA Machine

c) Cannula

Cannula can be either plastic or metal.

Plastic cannulae are available in two versions - flexible and semi-rigid. These are made of high-quality medical grade plastic, offering optimal flexibility, strength and durability. Depending on the type of raw material used in manufacturing process, the processing options of cannulae from different manufacturers vary significantly. Plastic cannulae are semi transparent, thus allowing the providers to visually inspect whether any remnant tissues/blood clots are clinging in the inner wall or not.

The following two varieties of plastic cannulae are available for use with MVA aspirator and EVA machine:

- Disposable, single use cannula (Karman)
- Autoclavable, reusable cannula (EasyGrip)

Metal cannulae are completely opaque. They can be used only with EVA machines. Flexible, plastic cannulae are safer to use than metal cannulae. The preferred size of cannula as per the gestation age/uterine size are as below:

Uterine Size	Preferred Cannula Size
4 - 6 weeks LMP	4 - 6 mm
7 - 9 weeks LMP	6 - 10 mm
9 - 12 weeks LMP	8 - 12 mm



Figure 7: Two types of Cannulae

VII. Pre-operative Care

Clinical assessment before the procedure and the investigation required are same as for other techniques for pregnancy termination.

a) Preparation for the Procedure

- Shaving the perineum and vulva is not recommended. Perineum hair could be trimmed.
- Obtain informed consent for the procedure (if not already obtained).
- Fulfil all the statutory and procedural requirements of the MTP Act and Rules
- A dose of oral analgesic/antispasmodic may be given an hour before the procedure.
- Administer a single dose of prophylactic antibiotic such as oral Ampicillin (1 gm) or alternatively Amoxicillin Trihydrate, Cephalexin or a suitable alternative.

b) Preliminary Steps

- Ensure the availability and preparation of all instruments and drugs.
- Ensure that emergency drugs and equipment are readily available.

c) Pain Control

Medication for pain management should always be offered. The purpose of pain control is to alleviate the woman's discomfort where mechanical dilatation is required for surgical abortion and to ensure that the woman suffers minimal anxiety, discomfort and risk to her health.

While the choice of the anaesthesia should be with the woman, local anaesthesia is feasible, effective and safe method of providing pain relief during a vacuum aspiration procedure. In most cases oral analgesics, local anaesthesia and/or mild sedation supplemented by verbal support are sufficient.

– For MVA

Counsel the woman and explain each step of the procedure - a combination of oral analgesic and / or local anaesthesia (paracervical block) should help to control the pain in first trimester abortion with MVA. Cases such as young, very anxious women and cases of suspected cervical stenosis may require general anaesthesia.

Give a dose of analgesic/ antispasmodic an hour before the procedure.

– For EVA

In case of EVA, if metal dilators are used for dilatation, higher level of pain medication is required. Use intramuscular/intravenous sedation.

Option of using oral analgesic with paracervical block is also available.

VIII. Procedure for Vacuum Aspiration

A) Manual Vacuum Aspiration (MVA)

Step 1: Prepare Instruments

Check that the aspirator retains vacuum, by charging it.

a) Charging the aspirator

- Begin with valve buttons open, plunger all the way in and collar stop locked in place.
- Close valve by pushing buttons down and forward until they lock.
- Pull plunger back until plunger arms catch on wide sides of cylinder.
- Ensure that both plunger arms are extended and secured over edge of cylinder.

b) Check aspirator for vacuum

- Charge aspirator.
- Leave it charged for a few seconds.
- Push buttons to release vacuum.
- A rush of air indicates vacuum was retained.

Replace MVA Aspirator when

- Cylinder is cracked or brittle.
- Mineral deposits inhibit plunger movement.
- Valve is cracked, bent or broken.

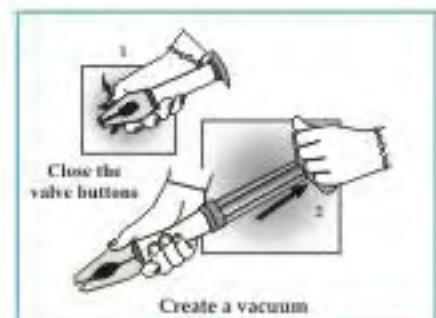


Figure 8: Preparing Instruments for MVA

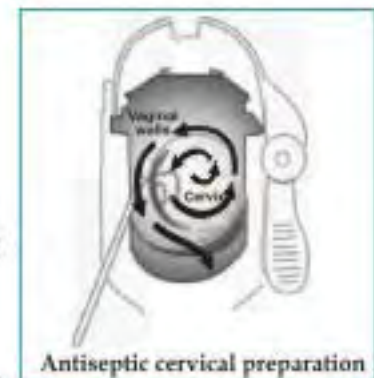
- Plunger arms do not lock.
- Aspirator no longer holds vacuum.

Step 2: Prepare the woman

- Ensure pain control medication is given at the appropriate time.
- Ask the woman to empty her bladder.
- Perform a bimanual exam to confirm the previous findings.

Step 3: Perform cervical antiseptic preparation

- Use an antiseptic such as Povidone Iodine to clean the cervix and vaginal walls.



Antiseptic cervical preparation

Figure 9

Step 4: Administer paracervical block

- Use Lignocaine one per cent (10 ml). Give the paracervical block using a 22 -24 gauge needle. There is increasing evidence to show that pre-testing before the administration of local anaesthesia need not be mandatory.
- Apply slight traction with the vulsellum / Allis forceps to identify the area between the smooth cervical epithelium and the vaginal tissue. Insert the needle just under the epithelium to a depth of 2 - 3 mm at 4 and 8 o'clock positions and inject 2-4 ml of Lignocaine at each site.
- Proceed with MVA after allowing 2-4 minutes for the local anaesthetic to be effective.

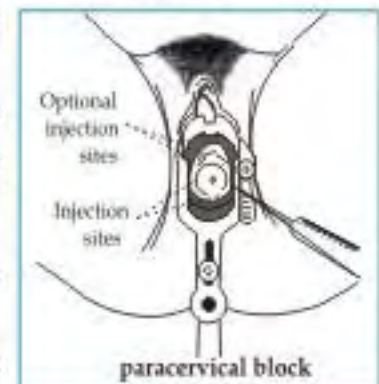


Figure 10

It is vital to aspirate before injecting the Lignocaine to ensure that the needle is not in the blood vessel.

Step 5: Dilate cervix

- Use plastic cannula instead of dilator to dilate the cervix.
- Use a progressively larger plastic cannula till it fits snugly in os to hold vacuum.

Cervical Priming

It is not mandatory to perform pre-procedure priming for all women.

In pregnancies of more than nine weeks gestation (particularly in nulliparous women and women under 18 years of age), cervical priming can be administered to soften the cervix so that it is easily dilatable up to the desired size with a reduced risk of immediate complications.

The commonly used methods are:

- Tablet misoprostol 400 mcg administered orally or vaginally 3 - 4 hours before the procedure.
- Injection 15 Methyl F2 Alpha 250 mcg intramuscularly 45 minutes before the procedure.

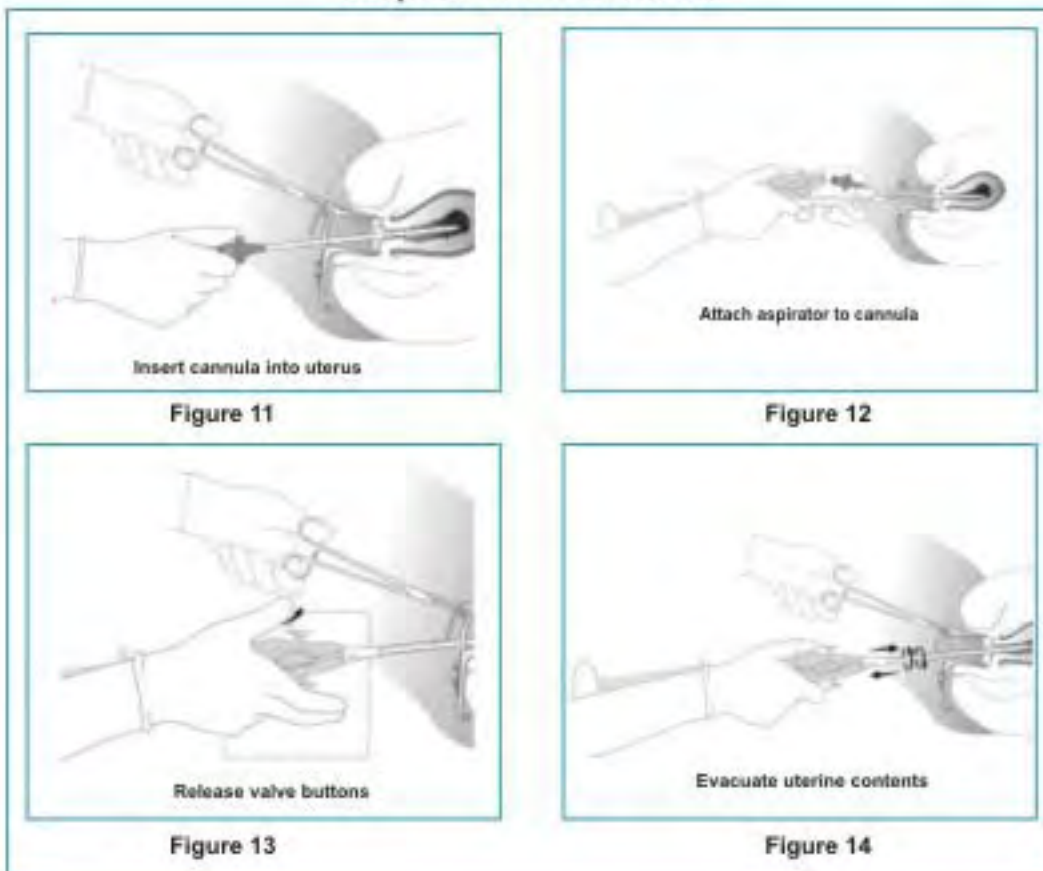
Step 6: Insert cannula

Gently apply traction to the cervix. Rotate the cannula while gently applying pressure for easy insertion.

Step 7: Suction of uterine contents

- Attach charged aspirator to cannula.
- Release buttons to start suction.
- Use a gentle in and out and rotatory motion.
- Do not withdraw cannula opening beyond external os.
- Take care to avoid holding a charged aspirator by the plunger arms.

Steps of MTP Procedure



Signs that the Uterus is Empty

- Red or pink foam without tissue passing through cannula.
- Gritty sensation over surface of uterus.
- Cervix gripping over the cannula.
- Uterus contracting around cannula.
- Increased uterine cramping.

When the procedure is complete

- Push buttons down and forward to close valve.
- Disconnect cannula from aspirator or remove cannula from uterus without disconnecting.
- May evacuate again after inspecting products of conception (POC), if needed.

Step 8: Inspect Tissue

- Empty contents of aspirator into a container.
- Inspect POC to identify villi and decidua visible to the naked eye.

If the aspirate does not contain the expected POC, ectopic pregnancy should be suspected and evaluated for and if contents do not conform to the estimated duration of pregnancy, incomplete abortion should be considered and managed.

Step 9: Concurrent Procedures

When the procedure is apparently complete, wipe the cervix with swab to assess bleeding.

Proceed with contraception such as sterilization, IUD insertion or other methods.

Step 10: Instrument Processing

Proper processing of instruments entails following four steps:

(a) Instrument Soak

This makes cleaning easier by keeping instruments wet. The use of an instrument soak in chlorine solution (0.5%) assists disinfection and helps remove tissue and body fluids.

Chlorine solution (0.5%) for instrument soak in a plastic container is made by dissolving three teaspoons (15 gm) of bleaching powder in one litre of water. Appropriate quantity of solution can be increased in the same proportion. Soak the instruments in disassembled form for 10 minutes.

This is an optional step if the instruments are being cleaned immediately following the procedure without waiting. The instrument soak does not make instruments completely safe for further handling and all precautions should be taken.

(b) Cleaning

To clean the instruments wash all surfaces of instruments in warm water and detergent with special care to flush the cannula. Plain soap is not recommended as it tends to leave a residue.



Inspect tissue

Figure 15



Figure 16: Instrument Processing

(c) Sterilisation / High Level Disinfection

Processing of MVA instruments can be done by any one of the following options:

Method	Agent	Time
Sterilisation	Steam Autoclave (SV and some DV aspirators cannot be autoclaved)	Sterility is achieved at 121°C (250°F) for 30 minutes with pressure of 106 kPa (15 lbs/in ²)
	2% Glutaraldehyde (Cidex)*	10 hours
High Level Disinfection (HLD)	Boiling water	20 minutes
	2% Glutaraldehyde (Cidex)*	20 minutes
	0.5% Chlorine solution*	20 minutes

* Instruments must be rinsed with sterile/HLD water before use.

Skin antiseptics that **cannot** be used for instrument processing are:

- Cetavlon
- Savlon
- Hibitane
- Eusol
- Lysol
- Phenol

(d) Storage

Following sterilisation/high level disinfection, MVA instrument may be stored in a sealed, sterile/HLD container for later use. The container should be marked by the date of instrument processing for sterilisation / high level disinfection and used within one week/24 hrs.

If not utilized within one week of autoclaving or 24 hours of HLD, the instruments should be re-cleaned and put through high level disinfection for 20 minutes.

B) Electric Vacuum Aspiration (EVA)

The basic steps of performing an MTP with EVA are very similar to MVA. However, there are differences in the equipment-specific steps, which are enumerated below:

Step 1: Prepare instruments

Check whether the suction machine is in working condition and is maintaining effective vacuum.

Step 2: Prepare the woman

Prepare the woman; same as for MVA (Refer Section VIII, Step 2).

Step 3: Perform cervical antiseptic preparation

Perform cervical antiseptic preparation; same as for MVA (Refer Section VIII, Step 3).

Step 4: Pain Management

Pain management may be used as per requirement.

This could be done by intramuscular sedation 15 - 20 minutes before the procedure; intravenous sedation 3 - 5 minutes before the procedure; or a paracervical block with analgesia as in MVA (Refer Section VIII, Step 4).

Step 5: Dilate cervix

Dilate cervix with dilator/plastic cannula, if required (For cervical priming, refer to Section VIII, Step 5).

Step 6: Insert cannula

Insert cannula and attach to tubing of suction machine. On creation of adequate vacuum, rotate cannula gently and move back and forth until all the POC are evacuated through the hose into a glass container at the end of the tubing.

Step 7: Suction of uterine contents

Suction of uterine contents is done by gradually increasing the level of negative pressure up to approximately 25-26 inches/600-660 mm of Mercury (Hg) in the machine. It provides a constant level of vacuum after it has reached the desired level for sucking out the contents.

Step 8: Inspect tissue

- (a) Empty contents of glass container into another container.
- (b) Look for POC: villi and decidua should be visible.

When the procedure is apparently complete, wipe the cervix with swab to assess bleeding.

Step 9: Concurrent procedures

Proceed with contraceptive chosen/procedures as sterilization or IUD insertion.

Step 10: Instrument processing

Cannula processed as enumerated in section VIII, Step 10.

IX. Comparative Features of the Vacuum Aspiration Techniques

Below are the comparative features of the two vacuum aspiration techniques- MVA and EVA.

S.No	Feature	MVA	EVA
A. Similarities			
1.	Effectiveness	98-100%	98-100%
2.	Time taken for the procedure	5-15 mins	5-15 mins
3.	Pain relief with oral analgesic and local anaesthesia	Adequate	Adequate
4.	Injury to cervix and vagina	Rare	Rare
5.	Congenital anomaly in method failure	None	None
B. Differences			
1.	POC Check	Possible and easy	Difficult and cumbersome
2.	Electric supply	Not required	Essential
3.	Regular maintenance	Lesser	More intensive
4.	Equipment noise during procedure	None	Present. Sometimes disturbing for the woman
5.	Cost Effectiveness	Lesser resources required.	More resources required. Higher maintenance.

X. Post Operative Care Following Vacuum Aspiration

A) Post Procedure Care

Immediately following the procedure

1. Check the woman's vital signs.
2. Evaluate abdominal pain.
3. Observe bleeding per vaginum which should decrease over time.
4. Vomiting/ nausea

Before discharge

Following the vacuum aspiration procedure, the woman may leave the health care facility as soon as she feels able and her vitals are normal, even as early as 30 minutes when local anaesthesia is used. Longer recovery periods are generally required when sedation or general anaesthesia is used.

The following tasks should be undertaken before the woman is discharged from the facility:

1. Assess and document the woman's vital signs at discharge.
2. Contraceptive counselling with contraceptive provision when requested.

3. Address other reproductive health issues: anaemia, reproductive tract infections (RTIs), HIV, domestic violence, cancer screening.
4. Provide instructions (to the extent possible) as listed below:
 - Pain management with analgesics at discharge, NSAIDs (for example Ibuprofen).
 - Antibiotic therapy, if indicated.
 - To resume normal diet on the same day.
 - To restrict activity for next three days.
 - To avoid vaginal douching.
 - To preferably avoid intercourse until a week or till bleeding stops. However, after an uncomplicated abortion, the woman may have vaginal intercourse as soon as she desires to do so.
 - Caution on possibility of getting pregnant almost immediately.
 - Follow-up visit within one-two weeks.
 - Explain signs of normal recovery.
 - Explain warning signs like excessive bleeding, severe abdominal pain, vomiting, and fever.
 - A normal menstrual period should begin within the next three to six weeks.
 - Advise the woman on barrier contraceptives and emergency contraception.

Signs of Normal Recovery

1. Some spotting or bleeding is normal, though it usually does not exceed that of a normal menstrual period.
2. Nausea and vomiting related to pregnancy generally subside within 24 hours.
3. Uterine cramping may occur over the next few days, similar to that of a normal menstrual period. Discomfort from cramping may be eased by mild analgesics, warm compress or bath.

Post-abortion care and counseling should provide information to recognize early the complications of induced abortion with instructions to report early in case of such an event.

B) Conditions that require immediate attention and treatment

1. Significant decline in physical condition as reflected in vital signs.
2. Dizziness, shortness of breath or fainting, which may be caused by internal or external blood loss.
3. Fainting which may be due to anxiety or due to a transient vagal reaction.
4. Severe vaginal bleeding: While some post-procedure bleeding is expected, the amount of bleeding should decrease over time. Excessive bleeding may be a sign of retained POC, lack of normal uterine tone, cervical laceration or other complications.
5. Severe abdominal pain or severe prolonged cramping may be a sign of uterine perforation or post-abortal hematometra.

C) Follow-up Care

After a vacuum aspiration procedure, schedule the follow-up visit within one - two weeks, because it is during this period that problems are most likely to occur.

During the follow-up visit

1. Assess the physical status and vital signs.
2. Assess bleeding per vaginum.
3. Inquire about fever, pelvic or abdominal pain or cramps.
4. Determine whether symptoms of pregnancy, such as nausea and breast tenderness, have decreased or continued, in order to rule out continuing pregnancy.
5. Talk about contraceptive choices if not already chosen by the woman.

XI. Complications and Management

While complications with vacuum aspiration are rare, awareness of their possibility and prompt attention and management when they do occur are vital.

a. Complications due to local anaesthesia

Complications and side effects are rare with the appropriate dose and when care is taken not to inject the drug into a blood vessel. However, mild side effects such as numbness of lips and tongue, metallic taste in mouth, dizziness and light headedness, ringing in ears, difficulty in focusing eyes and itching and rashes are occasionally encountered. They should be observed and must subside before the procedure is commenced. These symptoms could also be a precursor to convulsions for which injection diazepam or phenytoin sodium must be kept ready for any emergency.

Systemic toxic reaction, though very rare, is the most serious complication due to local anaesthesia. If the woman shows signs of sleepiness, disorientation, muscle twitching and shivering, slurred speech, generalized convulsions and respiratory depression and arrest, manage as follows:

- i. Place the patient's head in low position.
- ii. Administer oxygen.
- iii. Apply suction to the throat to maintain patent airway.
- iv. Rapidly infuse fluids.

Haemorrhage	
Causes	Management
<ul style="list-style-type: none">• Cervical injury, which may have been caused by the volsellum or difficult dilatation.• Incomplete emptying of uterus.• Uterine atony.• Perforation of uterus.	<p>In case of cervical injury:</p> <ul style="list-style-type: none">• Apply pressure with sponge.• Suture with chromic catgut or any other suitable absorbable suture 1-0 using round body needle. <p>In case of bleeding from the uterine cavity:</p> <ul style="list-style-type: none">• Give injection methylergometrine maleate 0.2 mg. IV or IM or tablet misoprostol 400mcg orally/ rectally.• If the bleeding continues, start oxytocin infusion 10 units in 500ml 5% dextrose at 40 - 60 drops per minute. Vacuum aspiration/curettage may have to be done if evacuation is not complete.

Uterine Perforation	
Signs of perforation	Management
<ul style="list-style-type: none"> • Sudden loss of resistance with the instrument in utero. • Dilator or cannula penetrates further than expected. • Fat/omentum (yellow colored) or bowel seen in the cannula or at the cervix. • Difficulty in withdrawing cannula. • Severe abdominal pain. • Rapid pulse and falling blood pressure (signs of shock). 	<ul style="list-style-type: none"> • Stop the procedure as soon as possible and remove instruments. • Trendelenberg position (Elevate the foot end of the bed and lower the head end). • Start intravenous fluids. • Give injection methylergometrine maleate 0.2 mg IV. • If the perforation is with cannula/dilator of less than 8 mm either complete the procedure under USG/ laproscopic guidance or complete the procedure after 48 hours, if she is stable. If with a bigger size cannula, refer to the next higher level of care. • If intestine or omentum is seen on cannula, start an intravenous infusion and antibiotics. If properly equipped, perform MTP in the facility itself under USG/ laproscopic guidance or refer to a higher level facility with complete laparotomy facilities.
Fainting/syncope	
Cause	Management
<p>This occurs usually when the cervix is forcefully dilated. Severe pain is experienced and the woman faints due to a vaso-vagal attack causing marked bradycardia (slowing of heart rate). This may last only for few seconds to minutes provided the pain is controlled.</p>	<ul style="list-style-type: none"> • Stop the procedure immediately. • Maintain an open airway. • Avoid aspiration of vomitus by turning the woman's head and shoulder to one side. • Trendelenberg position (Elevate the foot end of the bed and lower the head end). • Administer injection atropine sulphate 0.6 mg IV. Repeat after 2 minutes if response is inadequate. • If recovery is not immediate, ventilate with an ambubag and administer oxygen. • Start IV fluids and monitor vital signs.

- v. Administer injection diazepam 10mg IV or phenytoin sodium 100mg IV slowly in case of convulsion (Diazepam may potentially cause serious respiratory depression).
- vi. Refer to a higher facility when the patient is stabilized for completion of the procedure.

b. Complications due to Vacuum Aspiration Technique

c. Delayed Complications

• Incomplete Evacuation

This is an uncommon complication when vacuum aspiration is done by a skilled provider. Women usually present with excessive or prolonged bleeding per vaginum, fever or pain in the abdomen, within two weeks of the procedure.

Incomplete evacuation may be prevented by checking the quantity of evacuated POC. It is managed by repeating the procedure under antibiotic cover to complete the evacuation, with attention to the possibility of haemorrhage or infection.

- **Continuation of Pregnancy**

The pregnancy may continue due to various reasons. Continuation may be prevented by confirming the presence of chorionic villi in the evacuated POC.

This is managed by counselling and informing the woman of the condition. If she wants to get it terminated, the procedure should be repeated if pregnancy is still within the first trimester. However if the pregnancy has advanced to the second trimester, appropriate methods of termination should be used.

Women must be counselled to report any delay in menstruation six weeks after the procedure with this instruction being included in the discharge summary.

- **Infection**

Infection rarely occurs following properly performed procedure. Infections should be prevented by taking utmost care while performing the procedure. It should be ensured that all instruments used are properly sterilised and that a no-touch technique is observed.

The symptoms of infection generally appear within two to three days after the procedure. The signs of infection are fever, abdominal pain, pelvic tenderness, sub involution of uterus and bleeding per vaginum/foul smelling discharge. In severe cases patient may present with sign of peritonitis or septic shock.

Management of infection

- Oral antibiotics such as doxycycline 100 mg and metronidazole 400mg.
- Injectable antibiotics may have to be used if signs of severe infection exist.

d. Remote Complications

The following complications are rare with VA and usually the result of trauma or infection. This underlines the importance of adopting a gentle and meticulous aseptic surgical technique.

- **Menstrual Disturbances**

Amenorrhoea and hypomenorrhoea may result from varying degrees of intrauterine adhesions (Ashermann's syndrome).

Hysteroscopic adhesiolysis is now the management of choice for intrauterine adhesions.

- **Infertility**

Infertility may result from the tubal factor (closure or distortion) due to post-abortal infections or uterine factor due to endometrial trauma or infection.

These may be managed by conventional or endoscopic pelvic reconstructive surgery or assisted reproduction as the etiology warrants.

- ***Recurrent Abortion***

Late (mid trimester) abortion can occur due to cervical incompetence as a result of injury from forceful dilatation to the cervix.

Cervical incompetence must be anticipated, diagnosed early and may be managed by cerclage.

- ***Ectopic Pregnancy***

Tubal distortion due to post-abortal infection may increase the risk of tubal ectopic pregnancy.

- ***Obstetric Complications***

Obstetric complications may rarely occur during future pregnancies.

Adherent placenta and uterine rupture may result from a previous undiagnosed perforation.

- ***Psychosomatic Conditions***

Though uncommon, depression may be reported occasionally.

Psychosomatic symptoms are predisposed to by abortions carried out for medical reasons or foetal abnormality in an otherwise wanted pregnancy or when there is coercion or force by spouse or family members.

Sensitive and supportive counselling is the key to pre-empting and preventing most psychosomatic symptoms.

CHAPTER 6

Medical Methods of Abortion for Termination of Pregnancy in the First Trimester

I. Introduction

Medical methods of abortion (MMA) is a non-surgical termination of early pregnancy using a combination of drugs.

a. Description

Medical methods of abortion include the use of mifepristone or RU-486 and misoprostol to induce and complete the abortion process.

b. Mechanism of Action

Mifepristone is a derivative of norethindrone with antiprogestin action. It binds to progesterone receptors in the endometrium and decidua resulting in necrosis and detachment of products of conception. It also softens cervix and causes mild uterine contractions. Mifepristone sensitizes uterus to the effect of prostaglandin.

Misoprostol is a prostaglandin which binds to myometrial cells causing strong myometrial contractions and causes cervical softening and dilatation. This leads to expulsion of the conceptus from the uterus. It is stable at room temperature and well absorbed from gastro-intestinal tract and vaginal mucosa. Being selective for PGE1 receptors, there are no significant effects on bronchi and blood vessels, minimizing its side effects as compared to other prostaglandins.

c. Gestation Limit

MMA can be used to terminate pregnancies up to 49 days LMP¹.

If there is any doubt about the period of gestation on the basis of history or examination by the MO at the level of a 24x7 PHC, the woman should be referred to a gynaecologist at FRU for evaluation.

d. Safety and Efficacy

A combination of mifepristone and misoprostol has a success rate of 95-98% for pregnancies of up to seven weeks. Mifepristone followed by misoprostol is a safe method to terminate pregnancy as long as the contraindications are not disregarded.

The few cases of failure of MMA are:

- 1% women may require surgical evacuation for heavy bleeding;
- 1% may fail to abort;

¹ Mifepristone + Misoprostol (1 tab of mifepristone 200mg and 4 tab of misoprostol 200mcg) combipack has been approved by the Central Drugs Standard Control Organization, Directorate General of Health Services for medical termination of pregnancy (MTP) for up to 63 days gestation in December 2008.

The Ministry of Health and Family Welfare, Government of India is taking action on modifying the MTP Rules in accordance with this approval.

- 2-3% may be incomplete abortion, necessitating surgical evacuation;
- 1-2 per thousand women may have excessive bleeding requiring blood transfusion.

e. Provider's Eligibility

Any provider who is recognised by the MTP Act as a registered medical practitioner entitled to terminate a first trimester pregnancy can use MMA to perform the procedure.

(Refer Chapter 1, Section II (a) for details on who can terminate a pregnancy)

f. Site Eligibility

Mifepristone with misoprostol for termination of pregnancy can be prescribed by a registered medical practitioner at:

- Primary, secondary and tertiary level of public sector health care sites. Currently, MMA should be prescribed up to a gestation period of 49 days at all facilities.
- Private sector facilities, which have been approved by the government as certified MTP sites.
- Outpatient facilities (clinics) which are not approved as MTP certified sites but have an established referral linkage to a MTP certified site and the clinic displays a certificate to the effect by the owner of the certified site.

II. Advantages and Disadvantages of MMA

Advantages	Disadvantages
Abortion can be offered at an earlier stage of pregnancy	Minimum three visits required (if misoprostol is administered at home, a minimum of two visits required)
Feasible with minimum technical assistance	Unpredictable outcome in a small percentage of cases
Less overall complication rate	Whole process takes longer, mean duration of bleeding being 9.5 days
More privacy	Drugs used for termination may have side-effects
No instrument & anaesthesia required, hence less invasive	Potential risk of foetal malformation in cases where pregnancy continues due to the failure of MMA
No effect on future fertility	

III. Indications, Contraindications & Special Precautions

a. Indications

All women with an intrauterine pregnancy, who wish to get their pregnancy terminated within seven weeks of LMP, and are:

- Willing to make minimum of three visits;
- Able to understand the instructions completely;



- Ready for surgical evacuation in case of failure of the method or excessive bleeding;
- Within accessible limits of the appropriate healthcare facility.

b. Contraindications

Medical methods of abortion are contraindicated in women with:

- Confirmed or suspected ectopic pregnancy or undiagnosed adnexal mass, as mifepristone is not an effective treatment for ectopic pregnancy;
- Anaemia (haemoglobin < 8 gm %);
- Uncontrolled hypertension with BP >160/100 mmHg;
- Cardio-vascular diseases such as angina, valvular disease, arrhythmia;
- Coagulopathy or women on anticoagulant therapy;
- Chronic adrenal failure or current long term use of systemic corticosteroids;
- Severe renal, liver or respiratory diseases;
- Uncontrolled seizure disorder;
- Inherited porphyria;
- Glaucoma;
- Allergy or intolerance to mifepristone/ misoprostol or other prostaglandins.



Psychosocial situations unsuitable for medical methods of abortion

- Women unable to adhere to the protocol due to social and personal reasons
- Women who want quick abortion
- Language or comprehension barrier

c. Special Precautions

Drugs for medical methods of abortion are to be used with caution for cases of:

- Pregnancy with in situ intrauterine device (IUD): IUD has to be removed before giving drugs for abortion.
- Pregnancy with fibroid: Women with symptomatic large fibroids encroaching on endometrial cavity can have heavy bleeding and fibroids may interfere with uterine contractility.
- Pregnancy with uterine scar: Caution should be exercised when medical method of abortion is offered to women with previous history of caesarean section, hysterotomy or myomectomy; however, up to nine weeks of pregnancy, MMA is safe in a woman with scarred uterus.
- Bronchial asthma: Misoprostol is a weak bronchodilator and therefore could be used in women with bronchial asthma. However, prostaglandins other than misoprostol should not be used.
- Use of anti-tubercular drugs: These may decrease the efficacy of medical abortion drugs.
- History of smoking and >35 years of age.
- Serious pelvic infection/sepsis.

IV. Counselling

Please refer to Chapter 2 for details on general counselling on abortions. Below are some counselling tips specifically for medical methods of abortion.

a. Pre-abortion counselling

While counselling the woman before the MMA procedure, following aspects about the abortion procedure should be told adequately:

- Need for minimal three visits (two visits with home administration of misoprostol);
- Family support during the abortion process;
- Appropriate healthcare facility within accessible limits;
- Side-effects of the drugs;
- Need for performing a surgical evacuation in case of failure or excessive bleeding; and
- Risk of congenital malformation in case of continuation of pregnancy.

Selection of women who may be given misoprostol for home administration will be done by the provider only.

b. Method Specific Counselling

A woman undergoing termination of pregnancy with medical methods should know that:

- She will require to visit hospital/clinic on three occasions: days 1, 3 and 15 (days 1 and 15 with home administration of misoprostol on day 3)
- Vaginal bleeding usually occurs for 8-13 days during the whole process and is like a heavy, prolonged period. However, some women bleed much less/shorter, some bleed longer, which is normal so long as there is no prolonged heavy bleeding. Sometimes, a small embryo may be visible in the blood clot.
- The next menstrual cycle may be delayed by one to two weeks, but subsequent periods will come on time.
- During treatment and preferably till the next menstrual cycle, it is advisable to use a contraceptive method if she has an intercourse.
- Failure to abort necessitates vacuum aspiration as continuation of pregnancy may result in congenital malformation in the foetus.
- Heavy bleeding requires a visit to the doctor/health facility immediately.

Note: A consent form is signed after being satisfied with all the information provided, and after getting satisfactory answers to any doubts that the woman may have in mind (Annexure 6.1).

Clinical assessment before the procedure and the investigation required are same as for other techniques for pregnancy termination.

c. Role of ultrasonography (USG)

It is not mandatory to perform an ultrasonography for all women undergoing termination of pregnancy with medical methods. USG is indicated for:

- Women unsure of LMP or have conceived during lactation amenorrhea;
- Women having irregular cycles;
- Women with discrepancy between history and clinical findings;
- Women with suspicion of ectopic pregnancy (having symptoms such as irregular vaginal bleeding, pelvic pain, or adnexal mass or tenderness; and
- Provider uncertainty with exam, or inability to measure uterine size due to obesity, pelvic discomfort, or an uncooperative woman.

V. Infrastructure required for the procedure

There is no infrastructure requirement for the outdoor clinic/centre from where the drugs can be prescribed, up to seven weeks of gestation period. But it should have an established referral linkage with an MTP certified site and the clinic should display a certificate to the effect.

If prescribed from an 'MTP certified site', infrastructure requirements are same as for the surgical methods (vacuum aspiration).

VI. Procedure

After the woman is found suitable to undergo pregnancy termination with medical methods (refer chapter 3: clinical assessment), counselled on the relevant aspects related to the procedure and has given consent for it, the clinical protocol given below is to be followed:

a. Clinical Protocol

1 First Visit, Day 1

- Mifepristone (200 mg) is administered orally
- Anti-D (50µgm) given to Rh negative woman

Before the woman leaves the facility:

- Instruct her to maintain a record of her symptoms in the client card (Annexure 6.2) given to her;
- Provide her with address and phone numbers of back-up facility where she can contact in case of emergency;
- Ask her to return to the clinic after 48 hours.

A small percentage of women (3%) may expel products of conception with mifepristone alone, but total drug dosage schedule with misoprostol must be completed.

Home administration of misoprostol may be advised at the discretion of the provider in certain cases where the woman has an access to 24-hour emergency services. In case of home administration of misoprostol, the woman needs to be provided with:

- a. Antiemetics
- b. Analgesics
- c. Additional dose of misoprostol to be repeated in the conditions mentioned below

2 Second Visit, Day 3

On her second visit, note any history of bleeding or other side effects and proceed with the following:

- Administer misoprostol 400 mcg orally/vaginally for gestation age upto seven weeks.
- Observe the woman for four hours in the clinic/hospital and monitor:
 - Pulse and blood pressure
 - Time of start of bleeding and expulsion of products (if it occurs)
 - Side effects of the drugs
- Perform a pelvic examination before the woman leaves the clinic and if cervical os is open and products are partially expelled, remove them digitally.
- Prescribe drugs for pain relief, if required. Non-narcotic and narcotic analgesics, such as paracetamol (acetaminophen) with or without codeine, or ibuprofen should be provided. Non-steroidal anti-inflammatory drugs (NSAIDS) do not interfere with misoprostol.

Before the woman leaves the facility:

- Instruct her to take adequate rest and avoid travelling;
- Tell her that she should report in case of excessive pain or bleeding; (bleeding heavy enough to completely soak two pads an hour for two consecutive hours or more)
- Tell her to use a contraceptive method if she has intercourse;
- Provide her with:
 - Analgesics.
 - Antiemetics
 - Additional dose of misoprostol, to be repeated in the conditions mentioned below
 - Condoms

Initial dose of misoprostol has to be repeated if:

- The woman vomits within half an hour of the intake of oral misoprostol;
- There is no vaginal bleeding even after 24 hours of misoprostol administration (A woman reporting no bleeding or very light bleeding suggests that either there is a continuing pregnancy or that the treatment is not working);
- She has excessive bleeding during the abortion process. If the bleeding does not get controlled even after the repeat dose of misoprostol, surgical evacuation may be considered.

3 Third Visit, Day 15

During her visit on day 15:

- A clinical history is taken and pelvic examination is done to ensure the complete expulsion of the products of conception.
- Ultrasonography is required if history and examination do not confirm expulsion of products of conception.

Before the woman leaves the facility:

- Tell her that her next period may be delayed but should come for a check-up if she does not menstruate in six weeks.
- Counsel her for contraception and provide her the chosen contraceptive method, if she has not already started it.

Protocols for Mifepristone and Misoprostol:

Gestational Age		Mifepristone on Day 1		Misoprostol on Day 3	
		Dose	Route	Dose	Route
Recommended options	Up to 49 days	200 mg (one 200 mg tablet)	Oral	400 mcg (two 200 mcg tablets)	Oral/vaginal

For provider's information:

For medical termination of pregnancy (MTP) for gestation between 49-63 days the Central Drugs Standard Control Organization, Directorate General of Health Services has approved a combipack of one 200mg tablet of mifepristone and four 200mcg tablets of misoprostol.

VII. Adjunct Medications

A. Prophylactic Antibiotics

Routine use of prophylactic antibiotics is not indicated except in cases of:

- Nulliparous women;
- Women with presence of vaginal infections.

Doxycycline 100 mg may be given twice a day for eight days.

B. Analgesics

Pain is an accompaniment with the process of abortion. Women counselled properly may tolerate pain better, thereby reducing the need for analgesics. Paracetamol or a narcotic analgesic may be used for pain relief.

C. Antiemetic and Antidiarrhoeal

- Gastrointestinal side-effects occur with varying frequency, but are generally mild. Following are few of the commonly experienced gastrointestinal side effects:
 - 12-47 % of women experience nausea
 - 9-45 % of women experience vomiting
 - 7-67 % of women experience diarrhoea
- (Pre-abortion counselling helps and routine administration of antiemetic is not necessary).

- If the patient vomits within half an hour of taking the tablet, antiemetic should be given followed by a repeat dose half an hour later.
- Mostly the diarrhoea is self-limiting and antidiarrhoeals are not required.

VIII. Expected side-effects

The common side-effects of mifepristone with misoprostol for termination of early pregnancy are related to the abortion process, the pregnancy itself and the effects of drugs used. Common side-effects include:

- Abdominal pain
- Bleeding per vaginum
- Nausea / vomiting / diarrhoea (gastrointestinal symptoms)
- Headache
- Feeling of warmth
- Chills
- Dizziness and fatigue

These side effects occur in few women, are relatively mild in nature, and tend to last less than one day.

IX. Complications and Management

Proper case selection, adequate counselling and appropriate referral are the key to the success of medical methods of abortion. Also, the woman should be informed about the possible complications and where/ whom to contact for emergency services.

a. Failure of the method

Failure with medical method of abortion is when a vacuum aspiration is performed for any reason including clinician's decision, patient's choice or a true drug failure.

True drug failure is defined as the presence of gestational cardiac activity two weeks following the administration of mifepristone and misoprostol. It occurs in <1 % women and pregnancy should be terminated by vacuum aspiration.

b. Heavy Bleeding

Pre-abortion counselling should emphasize that bleeding is likely to be heavier than regular menses, comparable to that of a miscarriage. She should be told that soaking two pads per hour for two hours in a row is all right at the time of peak cramping which is often the case during the expulsion of the products of conception. However, if this persists and/or the woman is dizzy, she should consult the doctor. Severe bleeding necessitating a surgical evacuation (vacuum aspiration), is reported in less than 1% patients.

Vacuum aspiration may be done depending on:

- The clinician's assessment of blood loss (severe pallor, signs of hypovolemia).
- Presence of circumstances that make it difficult for the woman to obtain emergency help later.
- Woman's preference.

c. Abdominal Cramps

Crampy abdominal pain is experienced by most women for a short time, coinciding with the expulsion of products of conception. Pain relief is an important part of the therapy. Often, women are relieved by paracetamol. A mild opioid such as oxycodone is often added to paracetamol if required.

Pain usually subsides once the products are expelled. Persistent pain, with failure to respond to these drugs for several hours, warrants evaluation for other causes, such as ectopic pregnancy, infection or incomplete abortion.

d. Fever or a feeling of warmth

Fever or a feeling of warmth is thought to be a component of the prostaglandin analog used. It is usually short-lived and resolves spontaneously. Acetaminophen (paracetamol) given for pain relief also takes care of fever, but if temperature exceeds 100.4°F (38°C) or persists for several hours despite antipyretics, infection should be ruled out.

e. Incomplete Abortion

Women having a persistent gestational sac without cardiac activity two weeks after the administration of mifepristone and misoprostol are diagnosed to have incomplete abortion. Such women usually do not have pregnancy-related symptoms and, often, spontaneously expel the products of conception.

Blood, blood clots and decidua present in the uterus despite expulsion of gestation sac may appear as hyperechoic tissue on ultrasonography and may be interpreted as incomplete abortion. In the absence of excessive bleeding, these patients should be followed conservatively.

f. Risk of Teratogenesis

It is advisable to terminate pregnancy surgically if it continues even after drugs for medical abortion have been taken, due to the risk of possible teratogenicity. A written statement signed by the woman must be kept on record if surgical termination is refused.

g. Delay in onset of next menses


There might be a delay in the following menstrual period. Next menstruation can occur from 3-6 weeks after the abortion and is usually normal.

X. Follow-up and Post-abortion Contraception

Contraception should be offered to all women seeking abortion. Following contraceptive methods can be used after medical methods of abortion:

1. Oral contraceptive pills or DMPA can be started on day three with misoprostol or day 15 if the abortion process appears to be complete.
2. IUCD can be inserted after one normal menstrual period.
3. Condoms should be used if the woman has intercourse any time during the process of MMA.
4. Women desiring concurrent tubal ligation should be counselled for surgical abortion initially when the two procedures can be combined. Alternatively, tubal ligation can be done after the next cycle if the woman so desires.

The woman should be given information on the use of emergency contraception.




XI. Record of Abortions through Medical Methods

Maintain records of all women opting for medical method of abortion as per the MTP Act and report it to the appropriate authorities.

XII. Record of Complications and Failures

A record of complications pertaining especially to heavy bleeding necessitating the use of IV fluids, blood transfusion or vacuum aspiration, sepsis, incomplete abortion, continuation of pregnancy, adverse drug reactions etc. should be maintained.



Annexure 6.1

Consent Form for MTP by MMA

I have been explained about the process of medical method of abortion, which is a method to terminate a pregnancy using a combination of two medicines. I understand that I will be required to take the prescribed doses of mifepristone on Day 1, followed by misoprostol on Day 3. I also understand that I will be required to come to the clinic for a follow-up visit on Day 15 to confirm the completion of the procedure.

I understand that many women experience some side effects with medical methods of abortion such as nausea, vomiting, diarrhoea, abdominal pain, cramping and bleeding. The bleeding may be heavier than I usually experience during my menstruation.

My doctor/ counsellor has also explained that there are chances that the method may fail to terminate the pregnancy. In such a situation, it will be necessary for me to undergo a surgical abortion to complete the process. If I experience any symptoms identified by my doctor as danger signs, or if I have any concerns about the procedure during the course of the 15 days, I may call my doctor.

I, _____ daughter/wife of _____ aged about _____ years, residing at _____

do hereby give my consent for the termination of my pregnancy at _____

Place: _____

Date: _____

Signature


I, _____ son/daughter/wife of _____ aged about _____ years, residing at _____

do hereby give my consent for the termination of the pregnancy of my ward _____ who is a minor/mentally ill person at _____

Place: _____

Date: _____

Signature



Annexure 6.2

MMA Client Card

Details of the patient:

Name: _____

Phone number: _____

Residential address: _____

Date of first visit: _____

Date of second visit: _____

Date of third visit: _____

In case of emergency, please contact:

Doctor: _____

Phone number: _____

Hospital address: _____

This chart will help you to assess your health during the 15 days of the medical method of abortion procedure. Put a (x) against any symptom that you experience each day during those 15 days.

During the procedure	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
 <p>Spotting</p>															
 <p>Routine menstrual bleeding</p>															
 <p>Excessive bleeding</p>															
 <p>Nausea/ vomiting</p>															
 <p>Pain/ cramps</p>															
 <p>Fever/ chills/ rigors</p>															

CHAPTER 7

Termination of Second Trimester Pregnancies

I. Overview

Second trimester abortions are a small percentage of all abortions worldwide; only 10-15% of all induced abortions occur in the second trimester. However, these abortions are responsible for two thirds of all major complications. To avoid these, it is essential that second trimester abortions are performed as per criteria laid down in the MTP Act and Rules, with an appropriate method and all necessary precautions.

II. Introduction

For various medical, social, logistical or psychological reasons, some women who decide to terminate a pregnancy will not do so in the first trimester. Thus, it is essential that second-trimester abortion services are available and accessible.

A. Provider's Eligibility

A registered medical practitioner with qualifications as laid down in the MTP Act is entitled to terminate a second trimester pregnancy (Refer chapter 1, Section II (a) on MTP provider eligibility).

B. Provision of services at different levels of health care

1. In the public sector, tertiary level health care centres (medical colleges) and secondary level health care centres (district hospitals and first referral units) can provide MTP services for pregnancies up to 20 weeks.
2. Primary health centres and non-designated (which do not fulfil the eligibility criteria) community health centres are not permitted to offer second trimester MTP services.
3. Private sector facilities are permitted to provide second trimester terminations after approval from the district level committees (DLCs) in accordance with the MTP Rules 2003.

III. Indications

- a) The MTP Act allows termination of a pregnancy between 13-20 weeks gestation only when opinion is formed by two registered medical practitioners
- b) The MTP Act allows termination of a second trimester pregnancy as per indications in Section 3 of the MTP Act. Refer to Chapter 1, section II (b) (When can a pregnancy be terminated)
- c) Provider should ascertain that MTP is not being sought following prenatal sex determination.

IV. Infrastructure required

Refer to chapter 8 'Infrastructure, Essential Equipment, Drugs & Supplies.'

V. Counselling

It is important to recognize that in second-trimester services, some women will be aborting a wanted pregnancy for medical reasons (foetus with congenital anomalies) which requires a high level of sensitivity by the counsellor and the provider. Appropriate pre and post procedure counselling plays an important role for these women. For details, refer to Chapter 2, Counselling.

VI. Clinical Assessment and Pre-Procedure Care

Comprehensive care of women who require or request pregnancy termination in the second trimester must include careful assessment of medical and psychological conditions.

Pre-procedure assessment includes the following:

1. History taking
2. General physical examination
3. Bimanual/pelvic/abdominal examination
4. Informed consent (refer to Chapter 2, Counselling, Section I - Pre procedure counselling).
5. Lab tests - Hb, Urine routine examination and Blood Group (ABO Rh) is essential

(Refer to Chapter 3-Clinical Assessment, for further details)

Once the procedure for second trimester pregnancy termination has started, the woman should be under medical supervision in the facility, till four hours after the completion of the procedure.

VII. Different Methods of Second Trimester Pregnancy Termination:

- A. Medical Method: Ethacridine lactate extra amniotic instillation
- B. Surgical Method: Dilatation & Evacuation (D&E)

Use of mifepristone and misoprostol is presently not an approved method of second trimester abortion in India. However, evidence from other countries shows that it is a safe and effective method for termination of second trimester pregnancies. Therefore, for information, the suggested protocol of the technology (as practiced in other countries) is given as Annexure 7.1

A. Medical Method- Ethacridine Lactate –Extra Amniotic Instillation

a) Description

Ethacridine Lactate, when instilled extra-amniotically, has a direct oxytocic effect on myometrium. It also causes separation of membranes which releases prostaglandins, leading to uterine contractions.

b) Gestation limit

This is an effective method for termination of pregnancies between 15-20 weeks of gestation.

c) Safety and Efficacy

It is a highly safe method and its efficacy is around 95 percent.

d) Contraindications

This method is contraindicated in women with renal disease and low lying placenta.

e) Procedure

Ethacridine Lactate is instilled extra amniotically into the uterine cavity. The steps of the instillation are:

- Ask the woman to empty bladder and lie down on the procedure table.
- Clean the vulva and vagina with antiseptic solution (preferably povidone iodine).
- Introduce the Sims speculum into the vagina and hold the anterior lip of the cervix with a volsellum. Clean the cervix with a povidone iodine swab.
- Introduce a Foley's catheter (no. 14 for nulliparous and no.16 for multiparous women) transcervically in the extra amniotic space. Push the catheter gradually till it is about one and half inches beyond the internal os. Inflate the bulb of the Foley's catheter with 20-30 cc of sterile normal saline or distilled water. The catheter is then pulled slightly so that the bulb fit in the internal os snugly and prevents leakage of the solution. Clamp the catheter with an artery forceps before instillation, to prevent spillage. Inject the calculated amount of ethacridine lactate solution through the catheter slowly, over 10 minutes, into the extra amniotic space by piercing its wall above the closed end, with the syringe needle.

Dose of Ethacridine Lactate

The volume to be instilled is calculated as per period of gestation of the pregnancy (10ml/week of gestation). Maximum dosage should not exceed 150 ml.

To expedite the delivery of the conceptus, Ethacridine Lactate instillation can be combined with extra-amniotic injection of 250 mcg (1 ml) of 15-methyl Prostaglandin F2 alpha six hours later.

If there is bleeding following the introduction of catheter, wait for a few minutes. If it stops, continue with the procedure. If the bleeding still persists, rule out low lying placenta (by USG). If USG does not show a placenta previa, wait for at least 24 hours, and attempt reinstallation of Ethacridine Lactate solution.

- Clamp the catheter with an artery forceps or knot it after instillation, to prevent spillage.
- Strap the catheter to the thigh to allow the woman to be up and about. The catheter is left in place to prevent leakage of the medication back into the vagina. Take out the catheter after eight hours.
- Start antibiotics.
- Check the following regularly (every two hours)
 - Pulse, blood pressure;
 - Signs of uterine contraction;
 - Any leaking or bleeding per vaginum;
 - Urine output.

- Six hours after instillation of Ethacridine Lactate solution, start an oxytocin drip to augment the abortion process, starting with 10 units of oxytocin in 500 ml of Ringer lactate/normal saline, gradually increasing the dose depending on the duration and periodicity of the uterine contractions.
- Note the progress of uterine contractions and cervical dilation periodically.
- Once the cervix is dilated to 4-5 cm, the foetus is expelled, followed by the placenta and membranes.
- Examine the placenta and membranes for completeness of the evacuation. Rarely, it may be necessary to remove the parts of placenta and membranes with an ovum/sponge forceps.
- Give Injection Methyl ergometrine (0.2 mg) if necessary.

Induction-abortion interval with Ethacridine lactate instillation ranges between 10-30 hrs.

f) Advantages and Disadvantages of Ethacridine Lactate

Advantages:

- Pattern of uterine contractions is similar to normal labour.
- Minimal danger of infections because of bactericidal properties of Ethacridine Lactate

Disadvantages:

Sometimes the induction-abortion interval is prolonged, leading to a lengthy abortion process

g) Failure of the method

If the termination does not happen on use of this method, reinstill (as done earlier) Ethacridine Lactate after 24 hours or use an alternative method.

If the method fails twice, refer to the appropriate higher facility for further treatment with alternate surgical/ medical methods.

h) Other medical methods used for second trimester pregnancy termination

- Intra amniotic prostaglandins
- Intravenous oxytocin infusion

B. Surgical Method - Dilatation & Evacuation (D&E)

a) Description

The D&E method involves preparing the cervix and evacuating the uterus with a combination of suction and forceps. It is a safe and effective surgical technique for later abortions where skilled, experienced providers are available. D&E requires preparing and dilating the cervix; and evacuating the uterus using vacuum aspiration and ovum/sponge holding forceps.

D&E is not a commonly used method in India and requires special training.

b) Gestation Limit

This is a useful method for termination of pregnancies particularly between 13-16 weeks of gestation by skilled and experienced providers.

c) Safety and Efficacy

It is a safe method when done by a skilled and a trained provider and its efficacy is more than 98 percent.

d) Special Precautions

A woman with the following conditions should be taken up for pregnancy termination with caution:

- Anaemia (Hb% less than 8 gm)
- Hypertension
- Liver & renal disease
- Uterine fibroids and known congenital anomalies of genital tract
- Previous LSCS
- Placenta praevia
- Cardiac disease

e) Pain Management

Types of pain management medications appropriate for D&E procedure are as below:

- Non-narcotic analgesics (NSAIDS), such as Ibuprofen, can be used to control pain during and after the procedure.
- Anxiolytics, such as Diazepam, reduce anxiety and relaxes muscles. These are useful when the woman is anxious but is in otherwise stable physical condition.
- Local anaesthetics, paracervical block.
- IV sedation may be used with Injection Pentazocine 30 mg and Injection Promethazine 25 mg
- General anaesthesia may be given, if required.

Verbal support to the woman throughout the D&E procedure can help her stay relaxed, thereby reducing pain and anxiety, making it an important element of pain management.

For pregnancy termination between 16-20 weeks, surgical procedure should desirably be done under USG guidance

f) Details of the method

i. Cervical Preparation/ Dilatation

The following medication/devices/instruments are used for cervical preparation and dilatation before evacuation of the products of conception:

- Misoprostol
- Laminaria tent
- Mechanical dilators of metal or plastic

Misoprostol

Misoprostol (400 mcg) is used vaginally/sublingually for cervical dilatation. One additional dose of 400 mcg may be given if the dilatation is inadequate after four hours or mechanically dilate with dilators.

Advantages of using misoprostol for dilatation:

- It is a highly effective drug for inducing cervical dilatation and uterine contractions.
- Administration of misoprostol leads to contraction of uterus even before the actual procedure is initiated, thereby reducing the amount of blood loss, possibility of perforation and the time taken for the procedure.

Disadvantages

- It has GI side effects which can discomfort the woman
- Once inserted vaginally, there is no way to withdraw its action. However, sublingual tablet can be spit.

Laminaria Tent (LT)

Laminaria tents can be used to dilate the cervix before performing uterine evacuation. These are made of hygroscopic materials, which swell up by absorbing cervical and vaginal secretions. Available in three sizes-small, medium and large-they gradually dilate and soften the cervix and also stimulate uterine contractions. In clinical practice, it has been observed that the maximum dilatation with laminaria tents is achieved within 6-8 hours of its insertion.

Procedural Steps for LT insertion

Before inserting the LT, counsel the woman to return the following day for the procedure (if she is sent home after LT insertion, take their address and phone number), or make her stay overnight.

Prior to insertion, LTs should be sterilized by soaking them in absolute alcohol/ methylated rectified spirit for at least four hours.

Steps for LT insertion

- Ask the woman to empty bladder and lie down on the table.
- Clean the vulva and vagina with antiseptic solution (preferably povidone iodine).
- Repeat bimanual examination to recheck the size of the uterus.
- Insert the speculum to visualize the cervix and hold the anterior lip with volsellum.
- After washing the LTs in normal saline, insert an adequate number of them (usually 2-3), so that they fit the cervical canal snugly. Do not use excessive force while inserting LTs.
- LTs should be placed parallel to each other. Tie the strings of the inserted LTs together on a piece of gauze and place it in the vagina.
- Note the number of LTs inserted in the client's case record.

Advantages of using LTs

There are lesser incidents of cervical tears and haemorrhage, since it induces gradual dilatation.

Disadvantages of using LTs

- It can lead to infection, particularly if introduced without proper aseptic care and left in cervix for too long.
- Not easily available

Problems that may occur during LT removal and their management

- Difficulty in removal if LT becomes dumb-bell shaped which usually happens when a single LT is inserted - the removal can be done by splitting the LT lengthwise.
- String of the LT breaks while pulling during its removal. The removal can be done by pulling gently with artery forceps

Gradual Dilatation by metal/plastic dilators

This is not a recommended procedure for cervical preparation/dilatation and should only be done in absence of other techniques. Dilatation may be preceded by syntocinon infusion (20 units in 500 cc of Ringer Lactate/Normal saline solution) or Injection Prostaglandin (15 methyl PGF2 alpha) 250 mcg IM. Be sure that adequate dilatation has been achieved for the POCs to be removed easily.

iii. Evacuation

After achieving the desired level of cervical dilatation by one of the above mentioned methods, proceed with the uterine evacuation:

Supplementary medication (to hasten the process)

Start an intravenous drip with Ringer Lactate or normal saline having 20 units of Oxytocin. Alternatively Injection Prostaglandin (15 methyl PGF2 alpha) 250 mcg may be given one hour before the procedure (tablets of an anti-diarrhoeal and an injectable anti-emetic may be given 30 minutes before injecting Prostaglandin to reduce side effects).

Steps of evacuation:

- Clean & drape the perineum
- Perform bimanual examination
- Insert Sim's speculum and clean the cervix with an antiseptic solution such as Povidone Iodine; hold the cervix with volsellum
- Check the adequacy of dilatation by attempting to pass a large-bore dilator or 12/14 mm cannula through the cervix. The D&E procedure should not be done if the cervix is not softened or adequately dilated.
- Insert a 12/ 14 or 16 mm cannula attached to a vacuum source through the cervix into the uterine cavity and aspirate the amniotic fluid. The foetal parts can then be removed with forceps.
- Inspect all the evacuated foetal parts to ensure completion of the procedure. Identify foetal parts (extremities, thorax/spine, calvarium and placenta should be seen).
- In the unlikely event that the foetus (calvarium (skull) or other foetus parts) cannot be easily removed, administer any one of the following uterotonic agent such as:
 - 400-600 mcg misoprostol orally or sublingually; or
 - Injection prostaglandin (PGF2 alpha) 250 mcg IM, or

- Injection oxytocin 20 units in 500 cc normal saline or lactated Ringer's solution run at 50 ml/hour IV
- After 2-4 hours, attempt the procedure again; often the medications will have caused the foetal parts to move into the lower portion of the uterus, thus facilitating removal.

g) Other surgical methods available

- Hysterotomy - this is not a preferred method for pregnancy termination. However it is helpful in the following conditions:
 - failure with the other methods
 - other associated gynaecological conditions
- Hysterectomy-helpful in cases of women bleeding profusely/ uncontrollably.

VIII. Post-Operative Care following Second Trimester Termination of Pregnancy

a) Post-Procedure Care

After a second-trimester abortion, a woman should remain in the health care facility for at least four hours so that the health care team can ensure that she is well enough to return home. The health care provider assigned to the recovery room should check the woman's pulse and blood pressure when she first arrives in the recovery room, and shortly thereafter, and again before she is discharged.

b) Post-procedure Information

The recovery period is also an important opportunity to provide the woman with information, including follow-up instructions and contraception.

Every woman should know:

- She may experience some bleeding per vaginum for several days and that this is normal. Bleeding may be as heavy as a period for the first week. If her bleeding increases, rather than decreasing during the following week, she should contact the clinic/provider;
- She may have some abdominal cramping and that this is normal. If her cramping increases rather than decreasing, or if she has a fever or severe abdominal pain, she should contact the clinic/provider;
- She can resume normal diet on the same day.
- She should restrict activities for one week.
- She should avoid vaginal douching or tampons.
- She can become pregnant again almost immediately and that contraceptive options are available to help her prevent unwanted pregnancy
- It is recommended that she does not have sexual intercourse until any complications are resolved/ bleeding stops and her chosen contraceptive method becomes effective
- She should return for a follow-up examination within two weeks

Every woman should be offered written and illustrated information and instructions for how to recognize complications and obtain medical care for them. If a woman from another locale indicates that she

cannot, or will not, return to your hospital or clinic for future care, make sure she leaves with a plan for a follow-up exam at another, more convenient facility.

The following tasks should be undertaken before the woman is discharged from the facility:

- Contraceptive counselling with contraceptive provision when requested.
- Address other health issues - anaemia, reproductive tract infections (RTIs), HIV, domestic violence, cancer screening.
- Suppression of lactation tablet cabergoline 0.5 mg stat.
- Provide discharge instructions as listed above.
- Pain management with analgesics, NSAIDs.
- Provision of antibiotic therapy (continue with tab doxycycline 100mg for eight days)

Conditions that require immediate attention and treatment

- Significant physical deterioration as reflected in vital signs.
- Dizziness, shortness of breath or fainting, which may be caused by internal or external blood loss.
- Fainting which may be due to anxiety or due to a transient vaso - vagal reaction.
- Severe vaginal bleeding: While some post-procedure bleeding is expected, the amount of bleeding should decrease over time.
- Severe abdominal pain or cramps: Severe, prolonged cramping may be a sign of uterine perforation or post-abortal hematometra.

c) Follow-up Care

Every woman who has a second-trimester abortion should be scheduled for a follow-up medical visit within two weeks after the procedure. At the follow-up visit, review:

- Woman's medical record from the procedure;
- Perform a physical exam;
- Review her contraceptive decisions;
- Provide any related services indicated or desired by the woman, making sure to answer her questions;
- Record results of the follow-up visit in the woman's medical chart.

IX. Complications and Management

i. Excessive haemorrhage during the procedure

The most common complication of second-trimester abortion by D&E is heavy bleeding which may occur during the procedure, at the end of the procedure, during the recovery period or after the woman has been discharged. Signs of heavy bleeding are:

- heavy, bright red vaginal bleeding with or without clots;
- blood-soaked pads, towels or clothing; and
- pallor.

Bleeding may result from uterine atony, retained products of conception, uterine perforation, or cervical laceration, though in most cases these conditions cause only mild to moderate bleeding and are easily resolved. The cause of bleeding is often apparent. For example:

- A soft and boggy uterus suggests atony. The uterus cannot contract enough to stop the bleeding.
- Perforation is suggested by exaggerated complaints of abdominal pain during the procedure or the clinician passed an intra-uterine instrument well beyond the expected length of the uterus.

Evaluation of a woman who bleeds more than normal after an abortion should include:

- assessment of vital signs;
- assessment of the woman's mental status (a change may indicate bleeding - sometimes confusion, or anxiety can be due to excessive blood loss)
- a speculum exam after expulsion of the foetus and placenta to observe bleeding and make sure the cervix is intact;
- a bimanual exam to assess uterine bogginess and palpate for laceration of the internal cervical os.

Below are the suggested treatments of the common causes of increased vaginal bleeding.

Cause	Treatment
Uterine Atony	Bimanual uterine massage during which a provider holds the uterus between an abdominal hand on the fundus and a hand in the vagina to create counter-pressure; vigorous massage often causes the uterine muscles to contract and treats atony; Uterotonic agent (oxytocin 10-30 units IM or mixed with crystalloid and given IV; or methyl ergometrine 0.2 mg IV or 800 mcg misoprostol per rectum.
Retained Products	Uterine evacuation (vacuum aspiration)
Cervical Laceration	Usually, pressure alone stops the bleeding, such as by applying pressure over the bleeding site for several minutes. Otherwise, the laceration can be repaired by suturing
Uterine Perforation	See section below on uterine perforation
Uterine Rupture	Surgical exploration

ii) Delayed Vaginal Bleeding

Within 24 hours of a second-trimester abortion, vaginal bleeding should decrease to a level similar to regular menstrual flow. A woman who presents after the day of her procedure with increased bleeding should have a thorough physical exam to check for causes of bleeding as described above.

An abnormally tender uterus or abdomen may indicate perforation, intraperitoneal injury, or an infection which can cause heavy or abnormal bleeding.

iii) Lacerations and Perforation

Minor Lacerations

With D&E procedure, minor lacerations can occur during cervical dilation; cervical injury can occur during foetal passage in an induction abortion. If untreated, such injuries can bleed and may cause future problems such as cervical incompetence. Occasionally they can serve as the entry port for infection. The occurrence of lacerations can be reduced by proper preparation of the cervix.

Uterine Perforation

If a woman complains of upper abdominal pain during the procedure, it may suggest that the bowel has been disturbed by uterine perforation. In addition, uterine perforation should be considered if any of the following signs or symptoms occurs during the procedure or recovery:

- Complaints of abnormal or excessive abdominal pain;
- Tachycardia;
- Hypotension;
- Abdominal rigidity and distension;
- Shoulder pain;
- Nausea and vomiting; and
- Abdominal x-ray showing air in the abdomen.

Treatment of Perforation

During the procedure

Treatment of uterine perforation that occurs during a procedure includes:

- Beginning IV fluids and antibiotics;
- Checking hematocrit;
- Arranging for blood transfusion if indicated; and
- Completing evacuation under direct visual control (laparoscopy or laparotomy) to assess damage to pelvic organs and prevent further damage.

The woman may need to be referred to a higher level of care to repair damage by suturing the defect and also to confirm that the bowel is intact and there is no injury to other abdominal organs. After surgical repair of the perforation, the woman should receive uterotonic agents and be monitored and treated according to the site protocol.

After the Procedure

If uterine perforation is suspected after the procedure is complete, the woman should be monitored closely. Uterine perforation diagnosed after the procedure should be treated as follows:

- Administer IV fluids and antibiotics;
- Give methyl ergometrine (0.2 mg IM, repeat as necessary);
- Observe for two hours;
- Check vital signs frequently

If the woman stabilizes and bleeding slows, give additional methyl ergometrine (0.2 mg IM, repeat as necessary but not more than 1 mg in 24 hrs) and continue observation overnight.

If bleeding and abdominal pain appear to be worsening, laparoscopy or mini-laparotomy may be necessary for which referral may be required. During transport, a trained health care provider should accompany the woman: continue oxygen, IV therapy, keep the woman warm, and keep her feet elevated.

iv) Infection and Sepsis

A woman can present with infection any time from several days to several weeks after an abortion. Infection in women who have had an abortion can be caused by micro-organisms introduced into the cervix and uterus or, more commonly, by bacteria growing in retained foetal or placental products. Infection may be limited to the site (uterus or cervix) or may become generalized sepsis. In all cases, immediate treatment is required. Signs and symptoms of infection or sepsis include:

- Chills, fever and sweats (flu-like symptoms);
- Foul smelling vaginal discharge;
- Abdominal pain or cramps;
- Distended abdomen;
- Rebound tenderness;
- Mildly low blood pressure;
- Prolonged bleeding;
- Overall malaise; and
- Cervical os remaining open.

Treatment of Infection

First, administer a course of broad-spectrum antibiotics. Woman with sepsis may require intravenous fluid support. In conjunction with antibiotics, evacuating the uterus with vacuum aspiration for retained products of conception is usually an effective treatment. Uterine evacuation performed on an infected uterus can more easily result in perforation, so it should be done with caution.

The underlying cause of infection must be treated while watching for signs of:

- Shock; and
- Disseminated intravascular coagulation (DIC)

v) Shock

With second-trimester abortion, shock most often results from haemorrhage or sepsis, both of which have already been discussed in this section. Immediate treatment is required to save the woman's life. Once she is stable, it is vital to treat the cause of the shock.

Signs of shock include:

- Fast, weak pulse (110 beats/minute or more);
- Low blood pressure (diastolic less than 60, systolic less than 90);
- Pallor (especially of inner eyelid, tongue or of palms);

- Rapid breathing (respiration 30 breaths/minute or more);
- Anxious, confused or unconscious mental state; and
- Profuse sweating or perspiration.

Initial treatment for shock

- Make sure the airway is open;
- Give Oxygen at six to eight litres/minute (mask or nasal cannula);
- Give IV fluids (Ringer's lactate or isotonic solution at one litre in 15-20 minutes using large bore needle (16-18 gauge); and
- Keep the woman warm.

After initial treatment, careful monitoring of the woman for signs of improvement is essential. If necessary, additional treatment measures may include IV antibiotics (if sepsis exists) and/or blood transfusion. Signs of stabilization and improvement include increase in blood pressure, lowering and stabilizing of heart rate, and decreased confusion or anxiety.

vi. Anaesthetic complications

Rarely, a woman may have a reaction while in the recovery room to anaesthesia used during the procedure.

Annexure 7.1

Medical Methods for Second Trimester Abortion

Use of mifepristone and misoprostol for second trimester terminations is yet not approved in India. However, international evidence shows that it is a safe and effective method for termination of second trimester pregnancies. Given below is the suggested protocol of the technology (as practiced in other countries).

a) Description

Medical methods involve the use of a drug or combination of drugs to initiate and complete the termination of pregnancy.

b) Gestation limit

This can be used for any gestation of pregnancy between 13-20 weeks.

c) Safety and Efficacy

It is a highly safe and effective method. Regimes involving mifepristone and misoprostol are found to be effective in 97% of cases.

d) Contraindications

Medical method is contraindicated in women with:

- Anaemia (haemoglobin < 8 gm %);
- Uncontrolled hypertension with BP > 160/100mmHg;
- Cardio-vascular diseases such as angina, valvular disease, arrhythmia;
- Coagulopathy or women on anticoagulant therapy;
- Chronic adrenal failure or current long term use of systemic corticosteroids;
- Severe renal, liver or respiratory diseases;
- Uncontrolled seizure disorder;
- Inherited porphyria;
- Allergy or intolerance to mifepristone/ misoprostol or other prostaglandins.

e) Procedure

Ensure that before starting the medication, the general physical and pelvic examinations have been done and the woman has consented to the procedure.

f) Pain Management

Give Ibuprofen or an equivalent agent to all women undergoing medical method of abortion with the first dose of misoprostol and then subsequently every 6-8 hours. Following can be used (alone or in combination) to relieve the pain during the process:

- Non-narcotic analgesics like Ibuprofen
- Narcotic analgesics like Mepridine (Pethidine)
- Verbal support

g) Cervical Preparation

Cervical preparation is done with mifepristone which reduces the overall induction time.

The dose will have to be repeated if the woman vomits within half an hour.

h) Suggested protocol

i. Use of mifepristone plus misoprostol

Give 200 mg of mifepristone for cervical preparation, followed by repeated doses of misoprostol. The recommended timing, dosage, and route of drugs are:

- 200 mg oral mifepristone followed 36–48 hours later by
- 400 mcg misoprostol vaginal, sublingual or oral misoprostol every 3-6 hours, up to five doses.
 - Before 18 weeks of gestation, a short (3-4 hour) interval is preferred.
 - At or after 18 weeks, consider lengthening of the interval to six hours

Record the woman's vital signs every four hours until she starts getting strong uterine contractions, at which point vital signs should be checked every two hours.

ii. Use of misoprostol alone

If mifepristone is not available, misoprostol alone can also be used. However, misoprostol alone regimes are less effective (84%) as compared to mife-miso combination.

Start with 400 mcg vaginal misoprostol, repeated every 3-6 hours up to five total doses.

As the cervix dilates, a bulging bag of membranes may be palpable in the vagina. The woman may complain of discomfort from the resulting pressure. Rupturing the membrane with a gloved hand or clamp can decrease this discomfort, and often foetal expulsion will occur one to two hours after rupture.

Unlike labor at full term, cervix will not become fully dilated. A nurse or doctor should assist the woman through the later part of the abortion. Vertex abortions usually occur quickly and with minimal pushing. Non-vertex (for example, breech or transverse) abortions require greater involvement of the provider.

After foetal expulsion, give the woman uterotonic agent to help the uterus contract. Options include:

- 400-800 mcg misoprostol orally, buccally or rectally; or
- 0.2 mg methyl ergometrine IM; or
- 20 units of oxytocin in 500-1000 ml Ringer Lactate solution at 100 ml/hr

If foetal expulsion does not occur after 24 hours, counting from the initial dose, perform an abdominal exam and possibly ultrasound to rule out the rare event of uterine rupture. This should be considered when the cervix remains closed despite prolonged uterine contractions or if the woman complains of extreme abdominal pain or if acute hemodynamic changes occur at any time during the abortion process, rule out uterine rupture.

If expulsion does not occur after 24 hours and uterine rupture has been ruled out, following steps may be taken:

- Repeat original regimen
- Rupture the membranes: If the woman is already having strong contraction, rupture the membranes and continue with the same dose of misoprostol. After amniotomy, the vaginal route of Misoprostol is less desirable, other routes may be substituted.
- D& E may also be offered as an alternative to a prolonged induction process in cases where 24 hours of misoprostol has not resulted in expulsion.

The placenta should be expelled within two hours of foetal expulsion. If the placenta remains in the uterus, one of the following options should be used:

- Use buccal/oral/rectal misoprostol, 400-800 mcg.
- Administer a high-dose oxytocin regimen for two hours, such as 20 units in 500 ml normal saline, run at 50 ml/hr IV
- Attempt a sponge-stick expulsion. Place a speculum in the vagina so that the cord comes on the middle of the speculum. Use two sponge holding/ artery forceps to work the way up the cord, gently placing traction on the placenta to help get it down. Be careful to avoid tearing the cord.
- If the cord is torn or the placenta is unable to be expelled, then perform vacuum aspiration or curettage to evacuate the placenta

i) Advantages of Medical Methods

- Non surgical technique.
- Gradual dilatation of the cervix, hence less chances of damage to the cervix and sequelae like cervical incompetence.

j) Disadvantages of Medical Methods

There are very few disadvantages of the technique, however the following can be kept in mind:

- Continuous monitoring of the uterine contractions, vital signs of the woman.
- GI side effects which can discomfort the woman
- Drug once administered cannot be withdrawn
- Unpredictable dilatation of the cervix.

CHAPTER 8

Infrastructure, Essential Equipments, Drugs & Supplies

A. Infrastructure required for vacuum aspiration procedure

MTPs using VA can be performed in a setting defined and approved for first trimester MTP as per the MTP Act and Rules. These may be equivalent to a basic labor room or a major or minor operation theatre.

The advantage of VA, especially vis-a-vis D&C, is that it can be performed safely at the most basic facility mandated by law with minimal essential equipments and supplies.

In addition to the essential equipments and supplies listed below, the facility must have clean running water and a toilet. It is preferable though not mandatory that the facility has a separate place with adequate privacy or a separate room for counselling.

a) Essential Equipments / Instruments

The facility offering MTPs using VA should essentially have the following equipments / instruments for performing MVA, EVA or both procedures:

1. Sim's and/ or Cusco's speculum
2. Anterior vaginal wall retractor
3. Allis forceps or volsellum (small toothed)
4. Sponge holding forceps
5. Blunt and sharp curette
6. Cheatle's forceps
7. Bowl for antiseptic solution
8. Proper light source / torch
9. MVA aspirator and / or Electric Suction Machine
10. Cannula of required sizes
11. Kidney tray or suitable receptacle for emptying the contents of the syringe
12. Strainer for tissues
13. Plastic bucket for chlorine solution for keeping soiled instruments

Equipment for resuscitation

1. Ambu bag
2. Oral airway
3. Oxygen cylinder

Equipment for infection prevention and sterilization

1. Autoclave
2. Boiler
3. Cidex tray

b) Essential Supplies

1. Antiseptic solution: Povidone iodine solution
2. Sterile cotton swabs
3. Sterile gloves
4. Clean perineal sheet (desirable)
5. Syringe and needle for administration of paracervical block and other drugs
6. Sterile saline or water for washing instruments that are chemically sterilized or high level disinfected before use
7. Chlorine solution/Bleaching powder

c) Essential Drugs

1. Antibiotic: Ampicillin, Amoxicillin Trihydrate, Cephalexin or a suitable alternative
2. Analgesic Paracetamol, Pentazocine, Dicyclomine or a suitable alternative
3. Injection Atropine Sulphate
4. Local anaesthetic: Injection Lignocaine 1-2 per cent
5. Injection Diazepam
6. Uterotonics: Injection Oxytocin and Methylergometrine Maleate. Injectable prostaglandins and / or tablet misoprostol are desirable but optional
7. Dextrose 5 per cent and Ringer lactate solution with IV sets and cannulae or scalp vein sets

d) Drugs for Treatment of Emergencies

1. Injection Adrenaline
2. Injection Aminophylline
3. Injection Sodium Bicarbonate 7.5 per cent
4. Injection Calcium Gluconate 10 per cent
5. Antiemetics: Injection Metoclopramide or a suitable alternative
6. Antihistaminics Injection Promethazine Hydrochloride or a suitable alternative
7. Steroid Injection Hydrocortisone Succinate

8. Injection Frusemide
9. Injection Dopamine

B. Drugs required for medical methods of abortion

The facility offering MTPs using MMA should essentially have the following drugs:

1. Mifepristone
2. Misoprostol
3. Analgesics: Paracetamol, Ibuprofen or a suitable alternative
4. Antiemetics: Tab. Metoclopramide or a suitable alternative

C. Infrastructure required for Second Trimester Terminations

In addition to all the requirement enlisted for VA procedure following are needed for the second trimester procedures:

a) Essential Equipments / Instruments

1. Ovum forceps
2. Foley's catheters No. 12, 14, 16
3. Instruments for laparotomy, gynaecological and abdominal surgery

Equipment for resuscitation/anaesthesia

1. Boyle's apparatus
2. Endotracheal tubes

Equipment for infection prevention and sterilization

Same as for VA procedure

b) Essential Supplies

Sutures of different sizes

c) Essential Drugs

Drugs for medical induction

1. Ethacridine Lactate
2. Laminaria Tents
3. Misoprostol

d) Drugs for Treatment of Emergencies

Same as for VA procedure

The functional equipment stock at the beginning of each month for various levels of the health facilities is given below:

Functional stock at the facility at the beginning of the month

	Item	PHC	CHC	SDH/RH	DH
1	<i>Examination room</i>				
1.1	Examination table	1	1	1	1
1.2	Screen/curtain for privacy	1	1	1	1
1.3	Cusco's speculum (medium & large)	3 (2 & 1)	3 (2 & 1)	4 (2 & 2)	10 (5 & 5)
1.4	Foot step	1	1	1	1
2	<i>Procedure room</i>				
2.1	Examination/ Labor table	1	1	1	1
2.2	Suction machine/Foot Pump	1	1	1	1
2.3	MVA Aspirator	2	2	3	5
2.4	Light source	1	1	1	1
2.5	Foot step	1	1	1	1
3	<i>Instruments</i>				
3.1	Dilator set	1	1	2	3
3.2	Sim's Speculum (medium & large)	2 (1 & 1)	4 (2 & 2)	4 (2 & 2)	5 (3 & 2)
3.3	Sponge holding forceps	2	2	3	5
3.4	Sharp & Blunt curette	2	2	3	5
3.5	Ovum forceps	0	1	1	2
3.6	Cannulae of different sizes	2 sets	2 sets	3 sets	5sets
3.7	Bowl/ kidney tray	1	2	3	5
3.8	Instrument tray	1	2	3	5
3.9	Instrument for gyne/abd surg			1set	2 sets
3.10	Instrument trolley	1	1	1	2
4	<i>Resuscitation equipment</i>				
4.1	Oral airway	1	1	1	2
4.2	Face mask	1	1	1	2
4.3	Ambu bag	1	1	1	2
4.4	Oxygen cylinder with reducing valve flow meter	1	1	2	3
4.5	Boyle's apparatus	0	0	1	1

	Item	PHC	CHC	SDH/RH	DH
5	<i>Sterilisation equipment</i>				
5.1	Autoclave	1	1	1	2
5.2	Boiler	1	1	1	2
5.3	CidexTray	1	1	1	2
6	<i>Drugs & parenteral fluid</i>				
6.1	Antibiotics - Tab Doxycycline	84	112	140	490
	Cap Ampicillin	30	30	45	150
6.2	Analgesics - Tab Ibuprofen	54	72	90	315
6.3	Tab Misoprostol (200 mcg)	16	22	24	80
6.4	Tab Mifepristone	2	3	3	10
6.5	Tab Perinorm	8	12	12	40
6.6	Tab Lomotil	8	12	12	40
6.7	Inj Ethacridine Lactate (set of vials)	0	0	1	5
6.8	Inj. Methylethergometrine	6	8	10	35
6.9	Inj. Oxytocin	0	10	60	120
6.10	Inj. Diazepam	2	2	4	10
6.11	Inj. Atropine	6	8	10	35
6.12	Inj. Adrenaline (no.s who may require)	1	1	2	5
6.13	Inj. Aminophylline	2	2	3	10
6.14	Inj. Sodium-Bi-Carbonate 7.5%	1	1	2	5
6.15	Inj. Calcium Gluconate-10%	2	2	3	5
6.16	Inj. Avil/ Phenergan	2	2	3	10
6.17	Inj. Hydrocortisone	2	2	3	5
6.18	Inj. Frusemide	2	2	3	5
6.19	Inj. Dopamine	4	4	6	20
6.20	Inj Xylocaine/Lignocaine (vials)	2	2	3	5
6.21	5% Dextrose	2	2	5	10
6.22	Ringer lactate	2	2	5	10
6.23	Normal saline	2	2	5	10
6.24	I/V sets	2	2	5	20
6.25	I/V cannula / scalp vein sets	2	2	5	20
6.26	Laminaria tents (sets)	0	0	1 set	2 sets

	Item	PHC	CHC	SDH/RH	DH
7	Supplies				
7.1	Povidone iodine solution bottles	4	4	6	10
7.2	Bleaching Powder				
7.3	Disposable syringes (2 ml)	24	32	40	140
7.4	Disposable syringes (10 ml)	12	16	20	80
7.5	Surgical Gloves (pairs)	24	32	40	175
7.6	Utility gloves	2	4	4	10
7.7	Cotton/gauze	2 packets	2 packets	3 packets	5 packets
7.8	Foley's cathetar	2	2	3	10
7.9	Plastic gowns	2	2	4	4
7.1	Perineal sheet	2	2	4	10
7.11	Trolley sheet	2	2	4	10
7.12	Surgical masks (disposable) - no. of boxes	1	1	1	2
7.13	Head caps (disposable) - no. of boxes	1	1	1	2
7.14	OT Slippers	10	10	15	20

The above requirements are based on the following assumptions for MTP caseload:

	PHC	CHC	SDH/RH/FRU	DH
1st trimester cases	6 (30% MMA - 2 cases)	8 (30% MMA- 3 cases)	10 (30% MMA - 3 cases)	35 (30% MMA- 10 cases)
2nd trimester cases			1	5

CHAPTER 9

Operationalising MTP trainings

Introduction

The MTP Act, 1971 along with the MTP Rules, 1975 permits MBBS doctors to provide first trimester MTP services, only after they undergo training at a government approved training site and have experience of observing 10 MTP cases, assisting 10 cases and performing five cases independently.

This chapter provides broad guidelines on:

- Establishing MTP training system within the state under the guidance of Ministry of Health and Family Welfare, Government of India
- Establishing training centers and conducting MTP trainings
- Required infrastructure for establishing MTP services at public sector health facilities

Roll out of MTP trainings

Roll out of MTP trainings at the state level consists of the following main components:

1. **Program management** that includes identification of key officials at the state and district levels who would be involved in selection of MTP training centers; development of MTP training materials; planning of training activities like developing MTP training calendar, deputing medical officers and nursing staff for training; and monitoring of training activities.
2. **MTP training activities** that include training of trainers; orientation program for certified providers; and certification of trainers and trainees.
3. **Establishing sites for providing MTP** services in public sector health set up.
4. **Budgeting and finance disbursement** that includes incorporation of MTP trainings in the state PIP with total estimation for conducting MTP training.

The detailed process flow of operationalising MTP trainings in the states is presented in figure 1; and given below is a detailed description of some key operational elements of MTP trainings.

Planning and orientation for MTP trainings

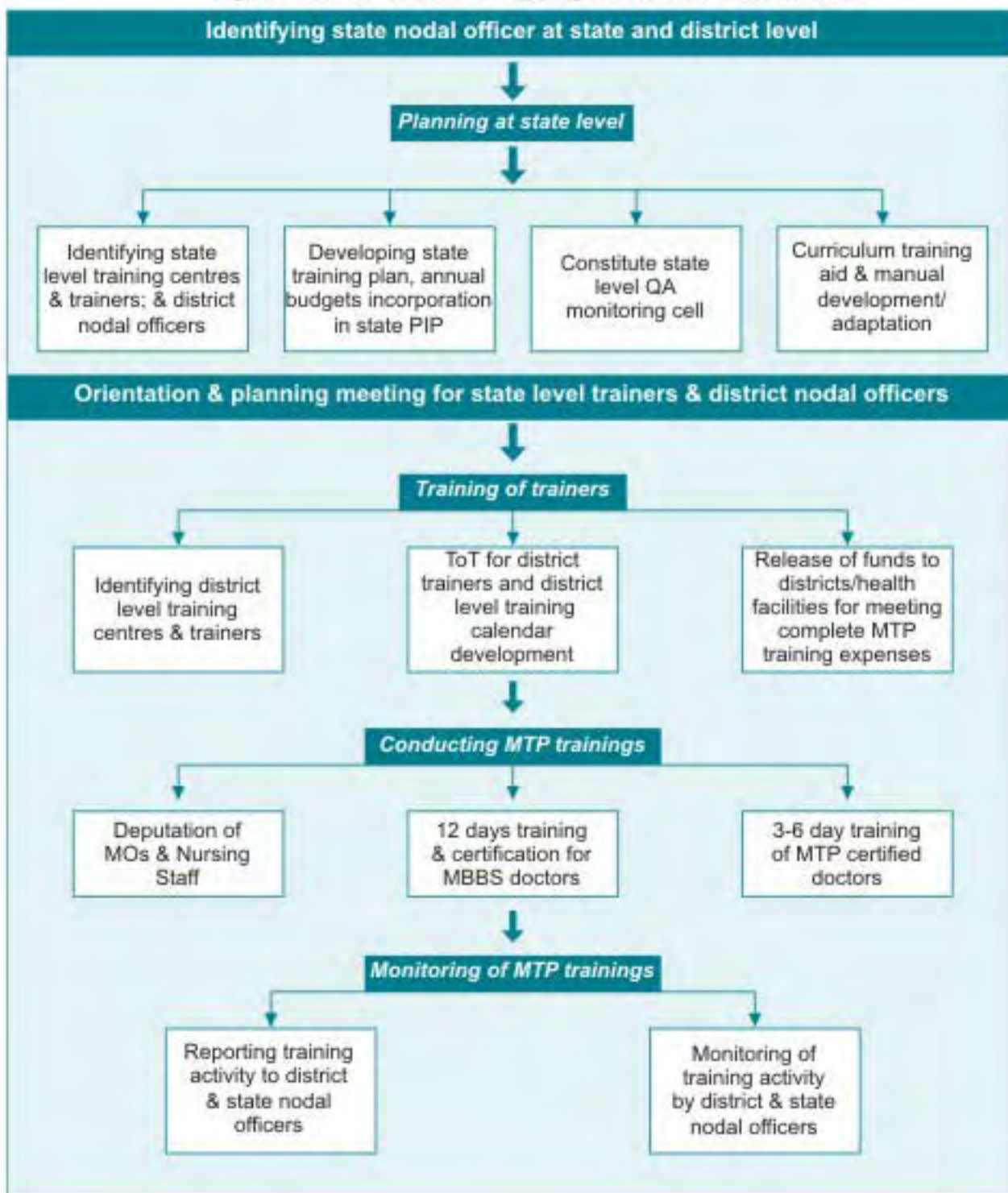
Orientation & planning workshop

Objective: To orient the state & district nodal persons for the MTP trainings, state master trainers, state & district program managers and training coordinators, members of the QA cell and SIHFW faculty.

Location: SIHFW/State Directorate of H&FW/State Health Society office

Resource persons: Technical experts from National Institute of Health & Family Welfare/National Health Systems Resource Centre/MoHFW/Medical Colleges etc. & persons involved in planning the MTP roll-out & its operationalization at the state/central level.

Figure 1: Roll out of MTP training program at state and district level.



Participants/ trainees: State & district nodal persons for the MTP trainings, state master trainers, state & district program managers and training coordinators, members of the QA cell and SIHFW faculty.

Duration: One day (eight hours) workshop.

Batch Size: The optimal number of participants is around 20. If there are more participants, workshop should be done in two batches.

Workshop content: The workshop will cover the training roll out, QA monitoring, budgets, operationalizing services and the sessions to be included in the training programs. The suggested agenda is given in Annexure 9.1.

Budget for MTP Trainings

All expenses for MTP training of public sector providers should be budgeted for under the maternal health component of the district and state PIP. These can be drawn from the RCH flexi pool fund placed at the disposal of the states. For this purpose, the revised RCH norms should be followed. Total estimation for conducting MTP training should be calculated. It should include cost of components like:

- TA/DA/honorarium/ accommodation for trainers/ trainees as applicable².
- Photocopying/printing of training manuals and other logistic/administrative expenses.
- Monitoring of MTP trainings and service delivery.

Annual training plan should guide the number of providers to be trained and budget required. The state nodal officer will ensure adequate budget being transferred to the districts ahead of trainings. Similarly district nodal officer should ensure release of funds to the identified training center/s ahead of training. Ensure that TA/DA of the participants is distributed in time.

Adequate funds for strengthening service delivery sites (provision of required equipment and infrastructure); monitoring of training at the training institute and also for post-training follow-up at the service delivery sites should be put in the respective PIPs.

Selection of an MTP training centre

Public, private and NGO sector service delivery sites can be approved by the state government as training centre for providing MTP training³. Service delivery sites need to fulfil the following criteria to be eligible to be approved as MTP training centre:

- Approved MTP service delivery site providing MTP services with appropriate technology.
- Annual MTP and incomplete abortion case load of more than 400. Cases of incomplete abortion also provide the trainees with an opportunity to practice clinical skills.
- Adequate infrastructure, including operation theatre, equipment & supplies for the MTP service delivery. Refer to Chapter 8 for more details.
- Availability of space/ room and other training infrastructure to conduct MTP training of 6-8 persons.
- Minimum of two MTP certified providers, one of whom has to be a gynaecologist (MD/DGO). Both of them should have attended the ToT to become government approved MTP trainers.

² TA/DA is not applicable in cases of trainees from the private sector

³ Private and NGO sector service delivery sites that are keen to get approval for MTP training should apply to the state authorities as appropriate. The state government has the flexibility to provide reimbursement to these sites for conducting MTP trainings.

- The providers should be offering MTP services with safe and appropriate technology as per the standardized protocol.
- Willingness of the administrative head and the department staff to take on responsibility for conducting MTP training, data collection and reporting.

Conducting MTP Trainings

I. Training of Trainers (ToT) workshop

Objective: To create a cadre of district level MTP master trainers who would provide ongoing training to medical officers and nursing staff at the identified district level training centers. These master trainers would also be required to go back to their sites and orient the site staff towards the MTP trainings.

Location: One/ two state level training centers identified by the state. The SIHFW in collaboration with nearby medical colleges could conduct the state level ToTs.

Trainer: Lead trainers identified and oriented by the state or experienced in conducting ToTs for MTP. They have to be a gynaecologist (MD/DGO) performing MTPs with appropriate technology.

Participants/ trainees: Head of the department of ObGyn, and one/ two senior faculty members of the district level training centers. They can be gynaecologists (MD/DGO) or MTP trained and certified MBBS doctors, performing MTPs with appropriate technology.

Duration: This is based on the time available with the lead and master trainers. Ideal duration of a ToT workshop is four days but minimum of three days should be adhered to. It should be ensured that this does not hamper the concurrent regular service provision at the facilities.

Batch Size: Dependent on the number of training centers identified. Batch size should not exceed 3-4 doctors.

Workshop content: The suggested sessions and sample session plan for the ToT workshop are given in Annexure 9.2

II. MTP training and certification for MBBS doctors

Objective: To train and certify MBBS doctors to provide safe and legal first trimester MTP services.

Location: State/ District level training centres that have been approved by the government.

Trainer: State/District level master trainers developed through ToT workshops.

Participants/ trainees: MBBS doctors (from the public and private sectors) who are registered with a State Medical Council. Public sector doctors who have been in service for at least three years and have more than five years to retire should be deputed for training. Contractual doctors should only be included in the training if the regular doctors are not available.

Duration: Dependant on the MTP case load at the training centre. Normally this takes about two weeks extendable by one week if caseload is insufficient. This is because each trainee needs to observe, assist, and perform cases as per requirements under the law. Extension of the training days for such trainees can be undertaken on the suggestion of the master trainer, who will inform the MS, with a copy of the communication to the CMO of the district, for necessary action including payment of TA/DA.

Batch size: Dependent on the MTP caseload per month at the training centre, so that trainees can have adequate hands on practice. No more than three trainees per batch should be taken at the centres having 400 cases per year. If a centre has more than 400 cases the number of trainees per batch can be increased in consultation with the master trainers of the centre for every additional 100 cases at a training site, one more trainee can be taken in the batch.

Course content: Includes didactic sessions on the clinical and non-clinical topics, and hands-on training on the anatomical models and live cases to ensure acquisition of the required skills.

The suggested didactic sessions along with a sample session plan for the MTP certification course are given as Annexures 9.3(a) and 9.3(b) respectively.

To acquire the clinical skills, each trainee doctor must undergo hands-on training during which each trainee must:

- Observe 10 MTP cases
- Assist in 10 MTP cases
- Perform five MTP cases independently (under supervision)

It is recommended that the hands-on training should include exposure to all technologies of safe abortion care. Hence, these cases should be spread across all the technologies - EVA, MVA, and MMA.

All the trainee doctors should record the cases they have done independently in their notebooks and get them signed by the respective trainer who supervised him/her.

A training manual covering the relevant chapters could be given to all the trainees, for future reference.

Certification of trainees

The trainee doctor should be evaluated for MTP skills by a trainer, using a checklist. A sample skills checklist is attached as Annexure 9.4. If the skills of the trainee are found to be satisfactory (12 critical steps performed correctly for two cases), a certificate (attached as Annexure 9.5) should be issued by the training center signed by head of the ObGyn department or training center certifying the trainee to provide first trimester MTP services.

III. MTP training program for certified providers

Objective: To reorient ObGyns and MTP trained MBBS doctors and help them adopt newer and safer technologies like manual vacuum aspiration and medical methods of abortions

Location: State/District level MTP training centers that have been approved by the government

Trainer: State/District level master trainers developed through ToT workshops

Participants/trainees: ObGyns and MTP trained MBBS doctors

Duration: 3-6 days depending on availability of MTP caseload at the training center. Each trainee needs to have hands-on experience of 2-3 MVA procedures



Batch size: 3-6 participants

Course content: The suggested sessions and session plan for the program are given in Annexure 9.6


It is recommended that wherever possible, providers undergoing MTP training should be accompanied by a nursing staff/OT staff/ANM from the site. It should however, be ensured that their absence does not disrupt any of the emergencies and routine surgical procedures at the sites.

As the law does not currently allow this cadre of staff to provide abortion services, they could be included in the relevant non-clinical sessions to enable them to provide counseling to women and support the medical officer in infection prevention and instrument processing.

Annexure 9.1

Suggestive agenda of orientation workshop

Time	Topic
9.00 – 9.30 am	Registration
9.30 – 10.30 am	Welcome Introduction of the participants Objectives & expected outcomes Expectations & norms
10.30 – 11.00 am	Abortion scenario
11.00 – 11.15 am	Tea
11.15 am – 1:00 pm	Operational roll out (training plan, monitoring & evaluation, materials, budget, disbursement of funds) Discussion on its operationalization
1:00 – 2:00 pm	Lunch
2:00 – 3.30 pm	Sessions for the subsequent trainings
3.30 – 3.45 pm	Tea
3.45 – 4.45 pm	Teaching/training methodology, Adult learning principles
4.45 – 5.15 pm	Discussion on the session/material contents
5.15 – 5.30 pm	Wrap up Vote of thanks



Annexure 9.2

Suggested sessions and curriculum for Training-of-Trainer's workshop

(A) The suggested sessions for the ToT workshop are as follows (can be modified by the lead trainers depending on the availability of time and cases in OPD/OT/indoor):

- Abortion scenario
- Rights of the woman
- Law and abortion (MTP Act & Rules)
- Adult learning principles
- Counselling skills
- Contraceptive services
- Clinical assessment
- Hands on pelvic model and live cases for MVA, EVA & MMA procedure
- Manual Vacuum Aspiration
- Infection prevention
- Medical methods of abortion
- Methods of second trimester abortion
- Complications of abortion
- Operationalising training and service delivery
- Methods of first trimester abortion

(B) A sample session plan for a Training of Trainer's workshop is given below:

Day 1		Day 2	
Time	Session	Time	Session
9.00-9.30 am	Registration	09.30-11.00	OT cases – observe and assist
9.30-10.30 am	Introduction to ToT program & objectives; participants' & trainers' introduction; expectations; pre-test	11.00-12.00 N	Abortion complications
10.30-1.00 am	operation roll out of the program	12.00-1.00 pm	Various uterine evacuation methods
1.00-2.00 am	Lunch		Lunch
2.00-2.30 pm	Abortion Scenario	2.00-3.00 pm	Medical Methods of Abortion
2.30-3.15 pm	Manual Vacuum Aspiration	3.00-4.00 pm	Counselling
3.15-3.30 pm	Tea		Tea
3.30-4.15 pm	Infection control and infection prevention	4.15-5.15 pm	Contraceptive services & EC
4.15-5.15 pm	Law & Abortions		Evaluation and planning for next day
5.15 – 5.30 pm	Evaluation and planning for next day		
Day 3		Day 4	
Time	Session	Time	Session
09.30-12.00 N	OT cases – assist & perform	10.00-11.00 am	OT cases assist & perform
12.00-1.00 pm	Reproductive Rights	11.00-12.00 N	Operationalising MTP training & service delivery
	Lunch	12.00-1.30 pm	Microteaching Sessions
2.00-2.45 pm	Adult Learning Principles	1.30-2.30 pm	Lunch
	Tea	2.30 pm	Training Evaluation
3.00-3.45 pm	2 nd trimester abortions	3.00-5.00 pm	Valedictory Certificate distribution
3.45 pm	Post test		Lunch
4.00-5.00 pm	MVA practice on pelvic model		
	Evaluation and planning for next day		



Annexure 9.3 (a)

Suggested didactic sessions for MTP certification course

Clinical topics

- Clinical assessment before the MTP procedure
- Methods of first trimester abortions- manual vacuum aspiration (MVA), electric vacuum aspiration (EVA), medical methods of abortion (MA)
- Pre- and post-procedure care.
- Managing complications of abortions

Non-clinical topics

- Abortion scenario in the country
- Rights of the woman
- Laws governing abortion care (MTP Act & Rules)
- Counseling skills
- Contraception
- Infection prevention & Instrument Processing
- Operationalising CAC service delivery post training

Annexure 9.3 (b)

Week 1	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6
9.30 am – 1.00pm	Registration Pretest Introduction of participants	MTP OPD Understanding functioning of OPD	MTP OPD Skills demo on clinical assessment	MTP OPD Skills demo on clinical assessment	MTP OPD Skills demo on clinical assessment	MTP OT Observe cases
1.00 – 2.00 pm	Lunch	Lunch	Lunch	Lunch	Lunch	Lunch
2.00-3.00 pm	Objectives of the training Expectations	Clinical Assessment	Counselling	Various uterine evacuation methods	MVA demonstration on pelvic model	Infection control & instrument processing
3.00 – 3.15 pm	Tea	Tea	Tea	Tea	Tea	Tea
3.15-4.15 pm	Abortion Scenario	Abortion and law	-continue-	Contraceptive services & emergency contraception	Practice MVA procedure on model	Practice MVA procedure on model
4.15-4.30 pm	Plan for next day	Plan for next day	Plan for next day	Plan for next day	Plan for next day	Plan for next day
Week 2	Day 7	Day 8	Day 9	Day 10	Day 11	Day 12
9.00 am – 1.00pm	MTP OT/OPD assist in MTP case, post procedure care	MTP OT/OPD Skills demo on instrument processing & assist in cases	MTP OT/OPD assist in MTP case, post procedure care	MTP OT/OPD Assist/perform cases, post op care	MTP OT/OPD Assist/perform cases, post op care	MTP OT/OPD Assist/perform cases, post op care Complete the record book
1.00 – 2.00 pm	Lunch	Lunch	Lunch	Lunch	Lunch	Lunch
2.00-3.00 pm	Medical Methods of Abortion	Rights of the woman	Complications of abortions	Practice counselling skills	Practice MVA procedure on model	Certificate distribution
3.00 – 3.15 pm	Tea	Tea	Tea	Tea	Tea	Tea
3.15-4.15 pm	Practice counselling skills	Practice MMA counselling skills with peer	Practice MVA procedure on model	Practice MVA procedure on model	Practice MVA procedure on model	
4.15-5.00 pm	Plan for next day	Plan for next day	Plan for next day	Plan for next day	Plan for next day, Post Test	


Annexure 9.4

Skills checklist Uterine Evacuation Procedure with MVA

Skills	Case 1				Case 2			
	Yes		No	Comments	Yes		No	Comments
	Satisfactorily	Unsatisfactorily			Satisfactorily	Unsatisfactorily		
Prepares the instruments								
Checks vacuum retention of aspirator *								
Prepares the woman								
Asks woman to empty her bladder*								
Puts on barriers and washes hands*								
Performs cervical antiseptic prep								
Follows No-Touch Technique*								
Uses antiseptic sponges to clean os and vagina*								
Performs pelvic exam to confirm assessment findings*								
Administers paracervical block								
Injects 1-2ml at tenaculum site after aspiration								
Slowly injects 2-5ml lidocaine at 4 and 8 o'clock , after aspiration *								
Uses positive, respectful, supportive reassurance								
Dilates cervix								
Gently dilates cervix unit cannula until it fits snugly*								
Inserts cannula								
Rotates cannula while gently applying pressure								
Inserts cannula just past internal os into uterus or to fundus and pulls back								
Evacuates uterine contents								
Attaches charged aspirator to the cannula*								
Releases buttons to start vacuum*								
Evacuates uterine contents by to- and- fro motion*								
Inspects tissue								
Empties aspirator into container								
Looks for POC*								
Concurrent procedures								
IUD insertion/ sterilisation								
Instrument processing								
Processes instruments*								
Removes barriers and washes hands								

* indicates 13 critical steps, that need to be performed correctly to be labelled as procedure performed satisfactorily

(Insert
respective
state gov.
logo)



CERTIFICATE OF COMPLETION

Participated & successfully completed the
Comprehensive Abortion Care Training Program

Held at from to

He/She is certified to provide MTP Services upto 12 weeks
as specified in Rule 4-C of the MTP Rules, 2003

Dr.
Department of Obstetrics &
Gynecology
.....

Annexure 9.6

Suggested didactic sessions and session plan for MTP training of certified providers

(a) The suggested didactic sessions for the MTP training for certified providers is as follows:

Clinical topics

- Methods of first trimester abortions- manual vacuum aspiration (MVA), electric vacuum aspiration (EVA), medical methods of abortion (MMA)
- Methods of second trimester abortions
- Managing complications of abortions
- Demonstration and practice of MVA on anatomical model
- Hands-on practice: 2-3 cases

Non-clinical topics

- Rights of the woman
- Counselling skills
- Infection Prevention
- Abortion and Law
- Contraceptive services

(B) The suggested session plan for the MTP training for certified providers is as follows:

Week 1	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6
9.00 - 10.00 am	Registration Introduction to Gynaecology Dept., Pre Test	Rights of the woman	History, counselling of MTP case, MVA/EVA procedure followed by post abortion care	History, counselling of MTP case, MVA/EVA procedure followed by post abortion care	History, counselling of MTP case, MVA/EVA procedure followed by post abortion care	Completion of all notes in personal record book & submit for signature
10.00- 11.00 am	Visit to MTP OPD Introduction to the training objectives & expected outcomes	Various uterine evacuation procedure				
11.00 am- 12.30 pm	Abortion scenario	MVA/EVA Case demonstration in MTP OT				
1.00- 2.00 pm	Lunch					
2.00 - 3.00 pm	Counselling skills	Medical Methods of Abortion	Instrument processing	Operationalising service delivery	Post Test	
3.00- 3.15 pm	Tea	Tea	Tea	Tea	Tea	Tea
3.15- 4.00 pm	Laws and abortion	Contraceptive skills		Complications of abortions	Methods of 2 nd trimester abortions	Distribution of certificates