Ipas India

Celebrating 10 years of
Protecting women's health
Advancing women's reproductive rights

Fogsifocus

Let the Life of Every Mother & Neonate Count

January 2012

FEDERATION OF OBSTETRIC AND GYNAECOLOGICAL SOCIETIES OF INDIA — FOGSI

Comprehensive Abortion Care & Post Abortion Contraception

Consensus statement on expanding abortion provider base

Advocacy for liberalization of the law

National guidelines on CAC training & service delivery

On its 10th anniversary in India, Ipas salutes the commitment of FOGSI members and celebrates our continued collaboration for making safe abortions a reality for the women of India.

Medical Abortion Providers' Network

75 safe abortion workshops

Training aids on safe abortion technology

Multi-centric study on MVA

Fogsifocus

Editor
Dr. Mandakini Megh
Vice President, FOGSI

The Federation of Obstetric and Gynaecological Societies of India

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This edition of FOGSI FOCUS is supported by Ipas as part of our ongoing collaborative efforts with FOGSI to improve quality of comprehensive abortion care services for women in India.

For more information, write to: ipasindia@ipas.org

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January 2012

Comprehensive Abortion Care & Post Abortion Contraception

Editor
Dr. Mandakini Megh
Vice President, FOGSI

The Federation of Obstetric and Gynaecological Societies of India

From President's Desk

Message

It is a great pleasure to present to you FOGSI Focus on 'Comprehensive Abortion Care & Post Abortion Contraception'.

I congratulate Dr. Mandakini Megh & co-editors, Dr. Kiran Kurtkoti, Dr. Atul Ganatra & Dr. Shailesh Kore for making it possible to bring out FOGSI Focus on 'Comprehensive Abortion Care & Post Abortion Contraception'.

All the contributors have done a great job in making this Focus very informative.

MTP practices have undergone a sea change over the years. In developing countries where the majority of the people live in rural areas, accessibility to health care facilities gets limited, as also the number of trained healthcare providers authorized to provide safe abortion care falls short of the optimum numbers required in the country.

I am sure that this information provided in this FOGSI Focus will tremendously help FOGSI members know and understand all related to 'Comprehensive Abortion Care & Post Abortion Contraception'.

Yours sincerely,

Dr. P. K. Shah
President,
FOGSI

Dr. P.C. Mahapatra

Professor Obst. & Gyn
S.C.B. Medical College, Cuttack
Immediate Past President, FOGSI

Message

With advancing knowledge on women's health problems, with innovative technology and implementation of policies and programme and the commitment of health care providers we have been able to reduce the maternal mortality and morbidity to a considerable extent. But it is necessary to note that still there are many preventable arenas in which we have to go a long way and target those areas where we can reduce the maternal death to bare minimum and achieve the MDG-5 particularly in developing countries like India. Needless to mention that unsafe abortion is recognised as one of the significant causes of maternal death even today. Poverty, illiteracy and many social factors contribute and regulate the abortion scenario. Death due to unsafe abortion is unacceptable today as far as FOGSI and FOGSIANS are concerned. We should target for increased awareness and accessibility to safe abortion services particularly in rural sector of India and increase the networking of safe abortion service package for the women of India.

I am happy to know that the FOGSI Focus on 'Comprehensive Abortion Care & Post Abortion Contraception' is going to be released at AICOG-2012. In this booklet, various aspects of safe abortion practices and post abortion contraception have been dealt with in great detail. I am sure this FOGSI Focus will be a useful manual to all FOGSIANS and health care providers.

Dr. P. C. Mahapatra
Immediate Past President,
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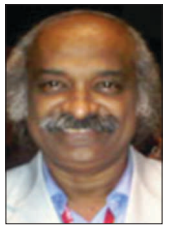

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From FOGSI Office Bearer's Desk

Globally, maternal mortality and morbidity due to unsafe abortion continue to remain high, even at the beginning of the 21st century. In India, in spite of legalizing abortion and advances in health care services, we have not been able to reduce abortion related deaths and injuries. As a national body of professionals directly concerned with women's health, it's our duty to help society and the nation to bring down morbidity associated with unsafe abortion.

It indeed gives us great pleasure to bring forth the FOGSI Focus on 'Comprehensive Abortion Care & Post Abortion Contraception', which will throw light on various aspects of the subject.

We congratulate Dr. Mandakini Megh, Vice-President and Editor and Co-editors Dr. Kiran Kurtkoti, Dr. Atul Ganatra and Dr. Shailesh Kore for making it possible.

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Message

Unsafe abortion is one of the most common causes of maternal morbidity & mortality. Highest mortality related to unsafe abortion is in countries where abortion is not legalized. India was one of the first few countries to legalize abortion, much ahead of many developed countries. Governments of Maharashtra & State commission for Women are committed to women's health & empowerment, and implement many new policies for better health of women. The government's mission is to provide access to free health & safe abortion services to all women, even in remote places.

We appreciate the efforts and work done by FOGSI and its members in the field of women's health. It gives me great pleasure to see a national organisation as large as FOGSI take up the important issue of "Comprehensive Abortion Care and Post-Abortion Contraception" in this nationwide publication. I am sure that a strong professional determination to make abortion easy, accessible and safe, backed by a solid political will, can go a long way in removing the danger of unsafe and illegal abortion from society. It will also empower women and their health providers to take informed decisions regarding pregnancy, and it's safe and timely termination in indicated cases.

I congratulate Dr. Mandakini Megh, Vice President, FOGSI, the editor, co-editor and all contributing authors, along with the entire team of Ipas for putting together an excellent piece of work which will serve as a reference manual for doctors, nurses and healthcare providers.

Shomita Biswas
Member Secretary

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ACS & SEO-1

Government of Maharashtra

Foreword

India was one of the first countries to recognise the importance of institutionalised medical abortions, bringing in a landmark legislation, the Medical Termination of Pregnancy Act. It was a radical step in recognising the importance of maternal health. Now we have gone beyond the mere medical procedures and have linked it with gender rights, placing the woman in the centre.

But recently under threat of unethical practices which ironically rely on abortion to achieve dangerous ends, we have to be especially vigilant in protecting the right for abortion and place it in the larger context of maternal health. The medical fraternity has a special responsibility in ensuring maternal health without resorting to procedures which ultimately harm the woman.

I commend FOGSI in recognising the importance of safe abortion which is a vital need in India today.

Ms. Anna K.Dani
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The Medical Termination of Pregnancy (MTP) Act of 1971, which permits termination of pregnancy for a wide range of medical and social indications, greatly liberalized MTP in India. However, even after 40 years of its enforcement, illegal and unsafe abortions remain a significant problem. Despite the provision of a liberal abortion law, deficiencies in its implementation have led to a situation where legal abortion may not necessarily mean safe abortion. Poor access to certified doctors, inadequacies in the quality of legal services, lack of awareness about the law at the community level, and socio-cultural factors contribute to continued predominance of unsafe abortions in India.

Though introduction of innovative abortion technologies, such as the improved manual vacuum aspiration technique and medical abortion, are expected to increase the availability of safe abortion services, fall in sex ratio and the growing demand for sex selective abortions are matters of great concern. Awareness about safe & ethical practices is more important than mere amendments to the MTP Act. Training more providers, simplifying registration procedures, linking policy with up-to-date technology, research and good clinical practice are some immediate measures needed to improve women's access to safe abortion care.

The fact that many women seek abortion services to limit family size or space the next pregnancy highlights the importance of improving access to high quality family planning services. The improved use of family planning services, particularly post abortion contraception will reduce the need for repeated abortions, and thereby reduce the overall morbidity and mortality associated with unsafe practices.

FOGSI is committed to saving women's life and improving their health by providing safe abortion services to all. We hope that this FOGSI Focus on 'Comprehensive Abortion Care and Post-Abortion Contraception' will serve as an important reference manual to all MTP service providers.

We sincerely thank all experts/authors for their valuable contribution which has made this FOGSI Focus interesting & worth a read.

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Global Scenario of Abortion

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Despite dramatically increased use of contraception over the past three decades, worldwide an estimated 41.6 million abortions occur annually and nearly 19 million (55 percent) of these are unsafe.

Estimates indicate that there is one abortion for seven live births worldwide and one unsafe abortion for every 10 pregnancies.

Magnitude of unsafe abortion is worst in developing countries. The incidence of unsafe abortion in developing countries is 16 per 1000 women of reproductive age and the ratio 17 per 100 live births.

Risk of death from unsafe abortion is highest in sub-Saharan Africa (Middle, Western and Eastern Africa) ranging from 850-900 per 100,000 births.

Worldwide about 13 percent pregnancy-related deaths have been attributed to complications of unsafe abortions. An estimated 70,000 women die each year due to unsafe abortions, eight million suffer from some complication including infertility - only five million out of these receive medical care. The rate of abortion-related complications is higher by 100 times if it is illegal or unsafe.

Mortality and morbidity due to unsafe abortions is mainly because of restrictive abortion laws worldwide. Globally, almost 40 percent women of childbearing age live in countries with highly restrictive abortion laws. Since 1997, 19 countries have significantly reduced restrictions on abortion but other three have substantially increased restrictions. Presently, in almost all countries the law permits abortion to save a woman's life and in most countries abortion is allowed to preserve the physical and mental health of the woman.

Barriers to safe abortion:

- Despite the right to legal abortions, many countries have not made sufficient provisions for abortion services – this is often due to social and cultural beliefs related to abortion;
- Lack of awareness about the law among public, legal and health professionals;
- Unwillingness among policy-makers and health professionals to implement abortion laws and acknowledge that women have a legal right to abortion under certain circumstances;
- Lack of information among women about their rights under the law – when and how to access abortion services;
- Social and cultural beliefs regarding abortion and fear of ill-treatment and legal reprisals;

- High cost of abortion care which the woman may not be able to afford;
- Lack of equitable access to facilities that offer safe and legal abortion services;
- Poor quality of abortion services;
- Discouraging and biased attitude of medical staff which may expose women to abuse or ill-treatment;
- Conscientious objection by providers, where permitted by law, may lead to non-provision of services, even when urgently needed;

The role of the World Health Organization is to develop norms and standards and provide advice to member states to strengthen the capacity of health systems. For over three decades WHO has assisted governments, international agencies and non governmental organizations to plan and deliver services to manage complications of unsafe abortion and provide high quality family planning services.

At the special session of the United Nations General Assembly in June 1999, governments agreed that "in circumstances where abortion is not against law, health systems should train and equip health service providers and should take other measures to ensure that such abortion is safe and easily accessible. Additional measures should also be taken to safeguard women's health."

Safe abortion services, as provided by law, therefore need to be available, provided by well-trained health personnel supported by policies, regulations and health system infrastructure, including equipment and supplies, so that women can have rapid access to these services. This needs to translate to reality to save the life of women dying every seven minutes worldwide due to unsafe abortions.

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MTP Act: An Overview

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Introduction

Every year nearly 80 million unintended pregnancies occur worldwide and more than half of these pregnancies-nearly 46 million-are terminated (26 million legally and 20 million illegally). Unsafe abortion is one of the most common causes of maternal morbidity & mortality. Highest mortality related to unsafe abortion is in countries where abortion is not legalized. Soviet Union was the first country to legalize abortion early in 1920. In India, the Medical Termination of Pregnancy (MTP) Act (No. 34) was passed by the Parliament on 10th August 1971 following the Rajya Sabha bill of 1969. The Act came into force in April 1972. Thus India became one of the few countries to legalize abortion, much ahead of many developed countries. The Act was in response to a movement by NGOs against criminal abortion for which a committee (the Shantilal Committee) was working since 1964.

Since 1971 there have been two amendments to the Act. The first was in 1975 and second was in 2002, which was published in the official gazette on 18th June 2003.

Even four decades after legalization of abortion in India, the Act has not been able to bring about the desired impact on maternal mortality & morbidity due to unsafe abortion. Unsafe abortions still contribute 8-9 percent of total maternal deaths. This is because, though more than 70% of Indian population lives in rural areas, access to safe abortion facilities are mainly restricted to urban areas. Availability of safer abortion facilities in rural areas, training of health care providers, simplifying registration procedures, linking policy with up-to-date technology and increasing awareness can help to achieve the goal and purpose of the MTP Act.

Medical termination of pregnancy act 1971 and medical termination of pregnancy rules and regulations 2003

The MTP Act is defined as 'an Act to provide for the termination of certain pregnancies by registered medical practitioners and for matters concerned therewith or incidental thereto'. It was enacted in 1971 and extends to the whole of India.

The MTP Act lays down when & where pregnancies can be terminated. It also grants the central government the power to make Rules and the state government, the power to frame Regulations.

The MTP Rules lay down who can terminate the pregnancy, training requirements, approval process for place, etc.

The MTP Regulations lay down norms for opinion, making forms, maintenance of records, custody of forms and reporting of cases.

Consent: For termination of pregnancy, written consent of the pregnant woman in 'Form-C' is mandatory provided she has completed 18 years of age.

If the pregnant woman is less than 18 years old or is mentally ill, written consent of her guardian is mandatory.

Gestation limit: A pregnancy can be terminated by a registered medical practitioner (RMP) when the duration of the pregnancy does not exceed 12 completed weeks of gestation, or by the opinion of two registered medical practitioners when the duration of pregnancy is between 12 to 20 weeks of gestation.

Indications for termination of pregnancy:

1. When continuation of pregnancy would involve a risk to the life of the pregnant woman or risk of grave injury to her physical & mental health **(Therapeutic)**
2. When there is a substantial risk that if the child were born, it would suffer from such physical or mental abnormalities as to be seriously handicapped **(Eugenic)**
3. Where, any pregnancy, as alleged by the pregnant woman, has been caused by rape **(Humanitarian)**
4. Where any pregnancy occurs as a result of failure of any device or method used by any married woman or her husband for the purpose of limiting the number of children **(Social)**

Place for termination: Termination of pregnancy can be carried out only in a hospital established and maintained by the government, or a private hospital approved for this purpose by the government or district level committee (DLC) constituted by the government in accordance with the amendments in 2002.

Such approval is given by the DLC after ascertaining that the termination of pregnancy can be carried out under safe and hygienic conditions at the said hospital. The minimum requirements of the hospital for termination of pregnancy up to 12 weeks are a gynaecology examination table/ labour table, sterilization and resuscitation equipment, drugs and parenteral fluids, facilities for treating shock and facilities for emergency transportation. In addition, termination of pregnancy of up to 20 weeks of gestation requires that the facility should have an operation table; instruments for performing abdominal or gynaecological surgery; and anaesthetic equipment.

Termination of pregnancy using medicines/ drugs: In case of termination of early pregnancy of up to seven weeks using mifepristone and misoprostol, the same may be prescribed by a registered medical practitioner either from an MTP approved site or an outdoor clinic provided till there is an established linkage with a place that is approved for carrying out MTP. The RMP must display a certificate to this effect from the owner of the approved place.

Eligibility criteria for the registered medical practitioner: The person carrying out the termination of pregnancy must fulfil one of the following requirements:

1. Any post graduate degree or diploma holder in obstetrics and gynaecology

   or

2. Completed at least six months of residency training in obstetrics and gynaecology

or

3. Experience of at least one year at any hospital in the field of obstetrics and gynaecology

   or

4. Has assisted a registered medical practitioner in the performance of 25 cases of medical termination of pregnancy of which at least five have been performed independently, in a hospital established or maintained, or a training institute approved for this purpose by the government. **This training would only allow the registered medical practitioner to perform first trimester pregnancy termination.** For second trimester pregnancies, only those RMPs that satisfy rules 1 to 3 are permitted to carry out the MTP

Maintenance of register: Every hospital is required to maintain a register in Form III for recording details of the admission of women for MTP, and to keep the register for a period of five years from the end of the calendar year that it is related to. These entries are to be made in serial order and a fresh serial number assigned at the start of each calendar year. This admission register is a secret document and is not to be shown to anyone except any person under the authority of law, or by the application of an employed woman whose pregnancy has been terminated, to grant a certificate that will enable her to obtain a leave from her employer. No entry should be made in any other hospital register, case sheet or discharge card indicating the name of the pregnant woman. Such entries must only carry the serial number of the woman as assigned to her in the MTP register.

Apart from maintenance of confidentiality of records, assurance to the patient for the same is important.

Protection of action taken in good faith: No suit or any other legal proceeding shall lie against any registered medical practitioner for any damage caused or likely to be caused by anything which is done or is intended to be done in good faith, under this Act.

Penalty: The termination of pregnancy by a person who is not a registered medical practitioner as per the Act or in a place other than that mentioned in section 4 of the Act, shall be an offence punishable with rigorous imprisonment for a term which shall not be less than two years but which may extend to seven years under the Act. Owner or administrative head, responsible for the working of the hospital which is not approved is also liable for punishment.

Therefore, MTP Act is an enabling act which:

- Aims to improve the maternal health scenario by preventing large number of unsafe abortions
- Legalizes abortion services by regulating and ensuring access to safe abortion care and defines 'when' 'where' and under 'what' conditions abortion is permissible.
- De-criminalizes the abortion seeker
- Offers protection to medical practitioners who otherwise would be penalized under the Indian Penal Code (sections 315-316)

References:

1. Medical termination of pregnancy act [Act 34 of 1971 dt 10/08/1971] published in the Gazette of India, Part 2, Section 1 pp 237-240
2. Medical termination of pregnancy rules 2003 [GSR no 485(E) dt 13/06/2003]

Pre - Abortion Counselling

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Availability of safe, effective and acceptable abortion-care services is one of the most important aspects of women's reproductive health. Counselling is an integral part of safe abortion services and is as important as performing the procedure correctly.

'*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 perception*'

Counselling of the spouse or partner should be done whenever possible. It also helps the woman to decide use of temporary or permanent method of contraception to avoid another unwanted pregnancy, which again exposes her to repeat termination of pregnancy.

Qualities of a counselor

A good counselor should be warm and sensitive to the need of the woman and should maintain confidentiality. He should be well-informed and skillful, aware of all cultural and psychological pressure, providing compassionate care to all women regardless of their reproductive behavior and decisions.

While helping a woman the counselor should
S – Sit **squarely** in relation to the woman. Sit opposite to each other and at an equal level.
O – Maintain an **open** position and an open mind.
L – **Lean** slightly forward and be an active listener.
E – Maintain reasonable **eye** contact.
R – **Relax.**

Counselling is not a one time discussion but is an ongoing process, which begins as pre-procedure counselling, continues after the procedure and even on follow up visits. Following are the issues which must be addressed while counselling a client before abortion.

- A brief social assessment of the woman's current situation.
- Exploring moral/ethical, cultural and spiritual/religious issues that may impact her decision.
- Exploring issues of loss and grief as they relate to pregnancy termination.
- Fetal development.
- Description of the relevant abortion procedure.
- A review of risks and complications for informed consent process.
- Contraception education: looking at past history, current options, and problems with past methods.
- Sexual health education: helping women to make safer choices.
- Referrals to other agencies when appropriate for ongoing assistance.

1. Pre-procedure Counselling

Pre-abortion counselling is very important as it helps the woman to decide about termination of pregnancy and adopt a contraceptive method after procedure. It ensures that the consent for the procedure is given after receiving the complete information about the procedure and understanding its implications.

Critical steps

- Ensure privacy and confidentiality.
- Be sensitive and nonjudgmental.
- Gain confidence and make her comfortable mentally and physically.
- A gentle enquiry should be done into why she wants termination of pregnancy & possibility of continuation of pregnancy should be discussed.
- If the woman insists about termination of pregnancy, assess the eligibility of woman for MTP procedure.
- If eligible for MTP, she should be counseled for range of available options, likely risks, after-care and when to return.
- Help woman to make a contraceptive choice after explaining mechanism of action, advantages and disadvantages.
- If the chosen method is not appropriate, explain the reason and help her choose other method.
- If the method chosen is not available at the center, provide proper referral .
- If any woman refusing contraception, MTP should be never denied, as she is likely to go for illegal abortion. Wait for another opportunity to counsel after the procedure or follow up.

2. Post-procedure counselling

The counselor should keep the following points in mind for counselling post abortion:

- Continue to maintain privacy & confidentiality and an empathetic attitude.
- Reassure any doubts.
- Repeat the potential warning signs and what to do then.
- Call her for follow-up in a week's time and counsel again.

- If the woman refuses contraception, encourage her and ask her to get her spouse.

Following points make post-procedure counselling as important as the pre-procedure counselling

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

3. Counselling during follow up visit

It is an opportunity to ensure continuation of contraception, continue providing care, clear any doubts and encourage safe reproductive health practice.

The following points should be kept in mind for follow-up visits:

- Enquire any problems after abortion.
- Ask if she is comfortable with the contraceptive method chosen.
- In those who did not accept any contraceptive method, focus on hazards of repeated abortions.
- Record findings/ advice of follow-up visit.

4. Counselling of woman who are referred to higher center

It is important to explain the following to the woman and her spouse or relative accompanying her:

- Explain in detail why the woman is being referred.
- Explain the nature of procedure that will be done at the higher facility and where to go.
- Give a complete referral letter with details of history, physical examination and reason for referral. Request for feedback in every case.
- Maintain proper records on referral.
- Instruct the woman to report or follow up either at facility or referral center in case of any problem/complication.

Women respond best to counselors who provide nonjudgmental support and empathetic attitude. To give voluntary informed consent, the woman must know about all the options for care, benefits, risks, and success rates. She should be able to choose freely from these options without any pressure or coercion.

Following are steps of a successful counselling:

The G A T H E R Approach

G: Greet the woman and offer comfortable seat, sit squarely in relation to woman in a private quieter area. Maintain an open position, lean forward slightly mindful of the comfort level, maintain reasonable eye contact, relax and address the woman by name.

A: Ask her age, marital status and number of pregnancies, Ask the woman about her feelings and concerns about her decision of termination of pregnancy. Ask about her contraceptive preferences.

T: Tell the woman accurate condition about her medical condition, tests and results, pregnancy options, abortion options, pain management options, benefits and risk associated with abortion procedures and resumption of ovulation after the abortion, availability and suitability of contraceptive methods.

H: Help her to recapitulate all the information and choose a method. If she misses or has misunderstood any information explain it to her again without offending.

E: Explain to her details of the chosen method, its mechanism of action, side effects, warning signs and symptoms. All this will ensure better compliance.

R: Refer and Return Refer the woman to appropriate health center facility for additional reproductive or other health needs. Seek information on her return visit and resupplies as required.

Investigations for MTP cases

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Introduction

Maternal mortality and morbidity due to unsafe abortions is high in developing countries. This is particularly true in countries where abortion is not legal. However, India is one of the countries where maternal mortality due to unsafe abortion continues to be high even though abortion has been legal for the past 40 years.

Investigations for MTP:

Essential investigations for an MTP procedure are: haemoglobin estimation, blood group & Rh typing, urine sugar and protein. If MTP is done in urban setup or at a highly specialized unit, investigations such as Australia Antigen, HIV ELISA testing maybe asked by the hospital/ physician. Also where facilities are available, CBC and blood sugar are asked by physician.

If the woman has a predisposing risk factor, like hypertension, diabetes or heart disease, additional investigations pertaining to that condition may be undertaken. But such cases should preferably be referred to a higher facility. Some clinicians ask for BT/CT

and renal function test before termination of second trimester pergnancy by ethacridine lactate.

Ultrasonography is not mandatory, but may be useful in certain conditions. For example, when there is discrepancy between period of gestation by LMP and by clinical examination. Also sonography may help to detect abnormal pregnancy like ectopic pregnancy, missed or incomplete abortion. Also it may help to diagnose other pelvic/ adenexal masses which may complicate the procedure. Sonography may be particularly useful before second trimester termination by ethacridine lactate to rule out low lying placenta. But, it should be remembered that, since it is obstetric sonography, it should be done as per the PCPNDT Act.

There is much discussion regarding this aspect for providing safe abortion services. The main aim to provide safe abortion is to ensure safety of the woman also ensuring her convenience both in terms of cost & time.

According to FOGSI-ICOG-CGPR guidelines, the most basic of all investigations are recommended for MTP. However it is important to keep in mind that as per the WHO technical & policy guidelines, even lack of these basic investigations should not be a cause to deny the woman a safe abortion.

ICMR collaboration study on sequealae of induced abortion indicates that about 2.5 percent of MTP cases develop incomplete/septic abortion. Even in India incidence of septic abortion is still high. In cases of septic abortion following investigations may be recommended to ensure safety.

1. CBC
2. Urine for Urobilinogen
3. Gram staining for vaginal discharge
4. High Vaginal or uterine swab
5. Blood culture
6. Serum electrolytes
7. Blood Urea / Sr. Creatinine
8. BT,CT, Platelet count
9. X-Ray Chest (Air under diaghram as evidence of uterine or vaginal vault perforation)
10. Plain X-Ray abdomen - for foreign body
11. USG

It is recognised that inspite of investigations, the clinician may encounter unexpected difficult situations which were not previously anticipated or diagnosed. Also it should be remembered that the recommended investigations in no way place the onus on the service provider.

MTP is one of the most fundamental health care needs for a woman. High quality of safe abortion services should be available even in rural areas to avoid risk of women going to unauthorized providers.

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1. Hiralal K. Changing, Trends in Septic Abortion, J. Obst. Gynecol Ind. 1992: 42, 266.92.
2. Rana A, Pradhan N, Singh M. Induced Septic Abortions, a major factor in maternal mortality and morbidity, J. Obstat Gynecol Research :2004, 30, 32.4)
3. FOGSI-ICOG-GCPR Guidelines.

Role of Ultrasound in Medical Termination of Pregnancy

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With rapid progress & advent of newer technologies, focus is now on providing quality health care. Ultrasound is an important screening and diagnostic tool in the field of obstetrics and gynaecology.

During early pregnancy, ultrasound allows:

- Confirmation of an intrauterine pregnancy
- Determination of gestational age
- Confirmation of embryonic life
- Determination of single/ multiple gestation
- Diagnosis of first trimester vaginal bleeding and ectopic pregnancy
- Diagnosis of vesicular mole

Ultrasonography in First Trimester Abortion:

Medical abortion

Ultrasound is commonly used to assess pregnancies in women before they undergo abortion to confirm gestation period and to rule out ectopic pregnancy or uterine anomalies. This practice started when medical abortion was introduced with a strict

upper limit for eligibility of nine weeks of gestation. However, there is no direct evidence that routine ultrasound improves either the safety or efficacy of abortion procedures and no RCTs have been undertaken comparing the outcome of abortions with and without routine pre-procedure ultrasound.

There are no official guidelines supporting that women should first get an ultrasound prior to medical abortion, but because it is the most precise way to determine the gestational age, it has become common practice for providers to perform one. However, it adds to the cost of medical abortion and its unavailability in some places should not be a barrier to offering medical abortion.

The RCOG guidelines (Nov 2011) recommend:

RECOMMENDATION 6.11

Use of routine pre-abortion ultrasound scanning is unnecessary.

RECOMMENDATION 6.12

Ultrasound scanning must be available to all services as it may be required as part of the assessment.

RECOMMENDATION 6.13

Ultrasound scanning should be provided in a setting and manner sensitive to the woman's situation.

The primary purpose of monitoring patients during medical abortion is to confirm that complete abortion has occurred without complications. Follow-up generally occurs within two weeks after administration of the first medicine (mifepristone). Because of the teratogenic potential of medical abortion regimens, detection of a continuing pregnancy at the two-week follow-up visit warrants surgical evacuation of the uterus.

Clinical methods generally used to evaluate the completeness of medical abortion may require ultrasound in few cases.

Post-Abortion Ultrasound

Possible outcomes of medical abortion include complete abortion, incomplete abortion and ongoing pregnancy.

When using transvaginal ultrasonography to assess the outcome after medical abortion, the primary objective is to determine whether the gestational sac is absent. The evaluation is performed after the woman experiences heavy bleeding. This imaging study may be done as early as four hours after administration of misoprostol if the patient remains for monitoring in the clinical setting, or the next day if she takes misoprostol at home, or at the first follow-up visit within two weeks after the initiation of the treatment regimen.

Interpretation of a follow-up ultrasound will depend, in part, on whether or not the patient underwent ultrasonography prior to the abortion. If the patient had a pre-abortion sonogram identifying an intrauterine pregnancy, then the absence of a gestational sac at follow-up indicates that the abortion is complete.

If the patient had no initial study, but reports heavy bleeding after taking the abortion medications, then absence of a gestational sac at follow-up most likely indicates a successful medical abortion.

However, if the patient had no initial scan to confirm an intrauterine pregnancy and she reports no significant bleeding, then absence of the sac on follow-up may indicate ectopic pregnancy.

Typically, a sonogram of a complete medical abortion will show some amount of intrauterine debris. These may be clots and retained trophoblastic tissue, while the gestational sac is absent. A thickened decidua stripe without a gestational sac may be visible in this case. These findings are normal following expulsion of the gestational sac in a woman undergoing medical abortion. In a medically stable woman, no intervention would be required.

In contrast to a generalized thickened endometrium, a persistent nonviable gestational sac appears as an empty, or anechoic, intrauterine fluid collection. The edges of the sac are typically a little "ragged" in appearance, and there may be a small hemorrhage in the choriodecidual area. Management can either be expectant or involve a repeat dose of misoprostol or vacuum aspiration.

Continuing pregnancy is an uncommon occurrence following early medical abortion with mifepristone/misoprostol. This condition is diagnosed when the ultrasound reveals a viable intrauterine pregnancy as indicated by embryonic cardiac activity two weeks after initiation of treatment . Because of the teratogenic risk posed by the medical abortion drugs, vacuum aspiration would be indicated.

Surgical methods of MTP:

Even in surgical methods of first trimester MTP, pre-procedure sonography can be useful for same indications as that for medical abortion.

Even during actual procedure, sonography can be a useful tool in conditions where difficulty is anticipated, such as

- Early pregnancy, POG less than six weeks
- History of two or more cesarean section
- Pregnancy with fibroid
- Pregnancy with uterine anomaly
- Multifetal pregnancy
- Previously failed procedure

In such condition, doing procedure under vision can greatly reduce chances of false passage, perforation, incomplete procedure or failure of procedure.

Post procedure, USG can be a useful tool for diagnosing incomplete abortion or diagnosis of certain complications like hematoma, intra-peritoneal bleed or collection.

Second Trimester Abortion:

In late second trimester, sonography is often useful for correct determination of POG, diagnosis of major anomalies, or diagnosis of other co-existing masses like ovarian cyst or fibroid.

Various methods for second trimester MTP are use of prostaglandins, extra-amniotic instillation of ethacridine lactate, or intra-amniotic instillation of various solutions.

Placental localization is one of the most useful indications prior to these procedures to avoid bleeding or accidental injection into placenta.

Sonography done prior or during aspiriotomy can greatly reduce chances of perforation or incomplete evacuation.

It should be remembered that all obstetric sonography should be done as per the PCPNDT Act. Ultrasonography should never be allowed for sex determination of the unborn fetus.

Thus, sonography plays an important role in MTP. Though it is not a mandatory investigation, in certain at-risk women, it can greatly reduce chances of complications making the procedure safer.

First trimester Medical Termination of Pregnancy

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The subject of pregnancy termination or induced abortion is charged with emotion, superstition and religious beliefs. It involves social, political and economical issues in every country. But because of its greater safety nowadays, abortion has gained tremendous popularity in the last few years as a way to address unwanted pregnancy.

Induced abortion means willful termination of pregnancy before period of viability. In India, as per the Medical Termination of Pregnancy (MTP) Act (1971), MTP is permitted only up to 20 weeks of gestation.

Every year nearly 80 million unintended pregnancies occur worldwide and more than half of these pregnancies—nearly 46 million—are terminated (26 million legally and 20 million illegally). A vast majority (90%) of these abortions take place during the first trimester.

Proper assessment for eligibility of woman for termination, counselling, & preoperative evaluation and investigations should be carried out as per the guidelines released by the Government of India.

Forms for informed consent and opinion of registered medical practitioner (RMP) should be completed beforehand.

Methods of first trimester pregnancy termination

Medical methods: Where available, medical methods are a preferred method of MTP in the first trimester.

For medical induction of abortion, two groups of drugs are now available:

1. Prostaglandins (PGs)
2. Antiprogesterone.

Prostaglandins

Two types of PGs are available for medical methods of abortion:

1. Misoprostol
2. Gemeprost

Misoprostol

Misoprostol is a synthetic PG analogue, developed in 1991-92. It is inexpensive and stable at room temperature. It acts by

1. Enhancing uterine contraction and thus helping expulsion of the products of contraception
2. Causing cervical ripening. It can be used orally as tablets as well as vaginally. Misoprostol is not very effective when used alone for induced abortion. However, when this product is used with an antiprogesterone, mifepristone (RU-486), the combination has been found to be a successful method for inducing abortion. It is currently available in India in varying tablet strengths.

Gemeprost

Gemeprost is a PG2α dimethyl ester vaginal suppository. It is used vaginally only for induction of abortion in combination with mifepristone or misoprostol. It is unstable unless refrigerated, is costlier than misoprostol and is not available in India.

Antiprogesterone

Antiprogesterones are compounds that counteract the action of progesterone at the receptor site. For example, mifepristone, also known as RU-486

RU-486 acts in several ways:

1. It acts preferentially on target cells of the endometrium and decidua, counteracting the effect of progesterone which is essential for establishment and maintenance of pregnancy.
2. It affects the pituitary gonadotrophic cells, producing a remarkable decrease of LH secretion, leading to luteolysis and shedding of the endometrium and bleeding in the luteal phase of the cycle, irrespective of implantation of the blastocyst.
3. In the early weeks of pregnancy, it causes luteolysis and softening and ripening of the cervix and enhances contractibility of the myometrium, helping expulsion of the products of conception.

For medical methods of abortion upto nine completed weeks since LMP, mifepristone plus PGs are used; the dosage regimens recommended by World Health Organization (WHO, 2003) and IPPF (IPPF, 2004) are as follows:

200 mg mifepristone followed after 36-48 hours by:

- 1 mg vaginal gemeprost
  or
- 800 mcg vaginal misoprostol
  or
- 400 mcg oral misoprostol upto completion of nine weeks since LMP

Side effects of medical abortion drugs

- Cramping, Nausea, Vomiting, Diarrhoea
- Prolonged menstrual-like bleeding

Surgical methods

For first trimester pregnancy termination, two types of surgical procedures are performed:

1. Vacuum aspiration (also called suction abortion, vacuum curettage, suction evacuation) uses aspiration to remove uterine contents through the cervix with a plastic or metal cannula attached to a vacuum source, which may be either electrical or manual. The primary difference between the two types of vacuum aspiration is the source of the vacuum: Manual vacuum aspiration (MVA) uses a hand-held portable aspirator, whereas electric vacuum aspiration(EVA) uses an electric pump.
2. Dilatation & Evacuation (Dilatation & curettage)

Cervical priming prior to procedure is useful and has shown to reduce bleeding and rate of complication.

Laminaria tents are not used nowadays, but drugs are used.

Drugs. PGs like misoprostol and vaginal gemeprost and antiprogesterone, mifepristone (RU-486) for cervical priming in the following dosage schedules (WHO, 2003):

- Vaginal administration of 400 mcg misoprostol 3-4 hours before procedure
- 1 mg gemeprost administered vaginally 3 hours before procedure
- Oral administration of 400 mcg misoprostol 3-4 hours before procedure
- 200 mg mifepristone taken orally 36 hours before procedure

Though intravenous sedation with local anaesthesia (paracervical block) is common practice, short general anaesthesia may be required in apprehensive woman or in anticipated difficult procedures.

Technique: Procedure of dilatation and evacuation involves dilatation followed by evacuation with help of ovum forceps or curette.

After pre-medication, ensuring empty bladder and necessary anaesthesia, the woman is placed in lithotomy position. Parts are cleaned and draped. Importance of bimanual examination should be emphasized. After introducing Sim's speculum, cervix is held with sponge holding forceps. Dilation of cervix with set of Hegars dilator is done, up to dilator one number more than period of gestation.

Some clinicians prefer to evacuate uterus by curettage, particularly if gestation is less than eight weeks.

If ovum forceps is being used, appropriate sized ovum forceps is introduced in a closed fashion, opened inside uterine cavity, rotated in 90^0, closed so as to hold fetal tissue tightly and then taken out in closed manner. Same procedure is repeated till bulk of tissue is out. Blunt curettage is done till following endpoints are met.

- Gritty sensation, felt in the hand holding the curette
- No active bleeding
- No more products evacuated
- Os cervical canal tends to close

Complications

Immediate:

Uterine haemorrhage. It occurs in 1-4 percent cases, although blood transfusions are required only 0.6 times/1000 abortions. It can be reduced to a great extent by the concomitant use of oxytocic drugs during the procedure.

Cervical injury. This complication occurs in 0.01-1 percent cases. Proper technique should be used to dilate the cervix.

Uterine perforation:

This is the most dangerous complication. Small perforation can be managed conservatively if patient is haemodynamically stable. If required laparoscopic evacuation can be done.

Late:

Retained products. The incidence is reduced by performing check curettage following MVA and by following proper techniques by well-trained personnel.

Pelvic infection. It ranges from 0.1-1.5 percent. The incidence can be reduced to a great extent by prophylactic use of antibiotic.

Continuation of pregnancy:

Less chance if procedure is complete.

Maternal mortality and morbidity: This has greatly reduced in the modern era under the MTP Act and with increased availability of good antibiotics.

Ovum Forceps 'Heywood Smith'

Medical Methods of Abortion in India

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'Abortion care should be made available as close to people's homes as possible and should be performed by the least specialized personnel who are adequately trained to perform it safely and well' - WHO, 1995

In spite of having legalized MTP over three decades ago, India still grapples with abortion access distributed unevenly across the subcontinent. With 6.4 million estimated annual abortions of which 2.4 million are abortions in uncertified facilities and 1.6 million are performed by untrained providers, unsafe abortion at eight percent is the third most common cause of pregnancy related mortality.

Medical method of abortion (MMA) has the potential of solving challenges of access and availability in the shortest possible time.

MMA challenges the need for the mandatory fulfillment of conventional conditions for safe abortion. With a delinkage from surgical facilities, a potential role for less qualified providers and training requirements that are more knowledge based and not surgical skill based, MMA promises easier access to safe abortion care by freeing abortion services from a limited pool of surgical sites and providers.

RU 486-Mifepristone-The Moral Property of Women

RU 486 (Mifepristone) was first clinically tested in 1982, licensed in France in 1988 and withdrawn by Roussel Uclaf within only one day fearing a conservative backlash. In a historic move mifepristone was declared the moral property of women by the French Ministry of Health and its distribution demanded by the government.

Mifepristone is a derivative of norethindrone with side chains added at the 11- C and 17-C positions. It is an anti progestogen that binds to progesterone receptors with a high affinity making them unavailable for activation by natural progestrone.

Misoprostol is a PGE1 analogue that is inexpensive and well absorbed from oral, vaginal, buccal, sublingual or rectal routes.

Introduction of MMA in India

Medical abortion using mifepristone was approved by the Drug Controller of India on February 13, 2002. With this India joined a select group of 28 countries worldwide to approve this option for women's health, choice and autonomy.

The approval came with what were then internationally accepted preconditions-permitting use through 49 days of pregnancy, sale by retail on the prescription of a gynaecologist and use under the

supervision and in a hospital where back-up facilities are available for blood transfusion and MTP.

Within the legal framework in India, the term gynaecologist was interpreted as any RMP certified under the MTP Act and Rules.

Many of these conditions were questioned by the Consortium on National Consensus for MMA organised by the MOHFW, GOI, AIIMS and WHO in March 2003. The consensus document established norms and standards relevant to practice of MMA in India.

FOGSI Statement - Meerut, April 2002

In a proactive response to the introduction, anticipating allegations of resistance from the profession and recognizing responsibility issues for providers, users and industry, FOGSI adopted and circulated a Statement on Medical Abortion (annexed herewith) articulating an official position.

Making MMA a Legal Reality

The MTP Act of 1971 defined the settings for performing all MTPs at a hospital, either established by or approved for this purpose by the Government. The MTP Rules of 1975, further mandated conditions such as facilities for anaesthesia, resuscitation, sterilization and abdominal or gynaecological surgery. Since medical abortions came under the same legal ambit, there was a real risk that these preconditions could have seriously jeopardised the use of this new technique.

The solution was provided by the amendments in the MTP Rules in 2003 relaxing the conditions for first trimester MTP sites. For MMA any certified RMP only needed to have notional access to a recognized MTP centre and simply had to display a certificate to this effect from the approved centre.

Use of MMA in India

Using ORG Data from 2006 to 2009 and projections from the FOGSI-Population Council Survey it is estimated that over four million medication abortions are performed each year.

Unlike prevalent practice in most countries distribution in India has been permitted on prescription from retail outlets, an important factor in promoting widespread availability. Besides this the strong local pharmaceutical industry has played a catalytic role. While most countries depend on a monopoly supplier, India enjoys the competitive advantage of several independent manufacturer suppliers, a major factor in encouraging competitive pricing.

MMA- Recommendations for Use

MOHFW GOI Comprehensive Abortion Care Guidelines, 2010 reiterate the safety and efficacy of MMA and make recommendations for medical methods for early abortions. The DCGI recently approved a combipack of one 200mg tablet of mifepristone and four 200mcg tablets of misoprostol for MMA up to 63 days.

For MMA up to 49 days

Mifepristone (200 mg) followed after 48 hours by oral or vaginal misoprostol (400 mcg)

For MMA from 49 to 63 days

Mifepristone (200 mg) followed after 48 hours by oral or vaginal misoprostol (800 mcg)

Prophylactic antibiotics-Routine use is not indicated except in nulliparas or with vaginal infections. Doxycycline 100 mg twice a day for eight days has been recommended.

Analgesics-Women counseled properly

tolerate pain better. Paracetamol or a narcotic analgesic may be used when indicated.

Antiemetics-Gastrointestinal side-effects are generally mild and routine administration of antiemetic is not necessary. If the patient vomits within 30 minutes of medication, an antiemetic may be followed by a repeat dose.

Antidiarrhoeals-Not required since any diarrhoea is self-limiting

FOGSI-Population Council Medical Abortion Survey

FOGSI and Population Council undertook a large, randomly selected representative Medical Abortion Survey in which knowledge of, attitudes to and practice related issues were studied within a year of MMA introduction.

While 98.6 percent respondents reported performing MTPs in practice, impressive 81.8 percent respondents were current users of MMA. In contrast a survey in the US revealed that only 16 percent gynaecologists were providing MMA within a year of introduction.

Respondents reported an impressive 93.6 percent familiarity, 97.5 percent perception of safety and 96.5 percent belief in the efficacy.

This success is credited to the role of governmental initiatives in simplifying regulations, training initiatives spearheaded by the MTP Committee and the involvement of the pharmaceutical industry in promotional education.

Post-MMA Contraception

Roughly 75 percent women ovulate and six percent conceive within 2-6 weeks after abortion, without contraception. All modern contraceptive methods can be safely provided immediately after MMA without waiting for the next menses.

At the same time MMA should not be denied irrespective of the woman's decision to refuse concurrent contraception.

The Versatility and Promise of MMA

MMA use in Rural Settings-In a report of its use in Indian villages, 294 cases were studied with a 95.9 percent success proving MMA to be as feasible, safe and effective in a rural setting. However, though medical abortion technologies have low failure rates, it is essential that providers of medical abortion establish linkages for back up with vacuum aspiration.

MMA only Sites-MMA holds particular promise for services not offering surgical abortion. In a retrospective cohort study of 220 women offered on-site medical abortion or referral to affiliated sites for uterine aspiration 85 percent selected medical abortion with complete abortion in 98 percent.

MMA by Home Administration-The ultimate test of confidentiality and autonomy is the option of home administration under expert guidance and monitoring. The GoI, WHO & AIIMS, Consensus Meeting observed 'Appreciating the advantages of a three visit clinic based administration, option of home administration of one or both drugs as per clinical discretion, with a follow up visit mandatory at two weeks'.

In a personal series of home administration in 106 consecutive women selecting MMA, the average age was 27.5 years (range 19 to 42 years), 30.1 percent were unmarried and complete abortion documented in 103 (97.2 percent).

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FOGSI Statement on Medical Methods for Early Abortion

FOGSI recognises the universal evidence on the effectiveness and safety of mifepristone - misoprostol administration for inducing medical termination of pregnancy up to 63 days from the LMP as approved for use by the Drug Controller in India.

It needs to be stressed that under existing laws these methods can only be administered by gynaecologists and RMPs recognised for performing MTPs by the MTP Act of 1971.

FOGSI recommends that close monitoring of distribution and use of these drugs be undertaken and that the medical profession and the pharmaceutical industry exercise due diligence in their promotion and use.

It is also vital that consumers be educated about this recently introduced method and counselled regarding its advantages, drawbacks, risks and limitations.

Manual Vacuum Aspiration Techniques for First Trimester Abortions

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Introduction

According to the WHO, vacuum aspiration is a preferred method of uterine evacuation(WHO, 2003).Through this chapter, we will provide an overview of use of Manual Vacuum Aspiration (MVA) for terminating pregnancies during first trimester. Manual Vacuum Aspiration is a method by which the contents of the uterus are evacuated through a manually operated hand-held aspirator and plastic cannulae.

Safety and Efficacy:

Various studies have demonstrated that MVA is very safe and an effective technique for first trimester abortions, and is successful in over 98 percent cases.Vacuum aspiration has specific safety benefits including a significantly reduced necessity of cervical dilatation, risk of cervical injury and uterine perforation, infection and blood loss, all resulting in a reduced need of anaesthesia and a shortened hospital stay. Acknowledging the superior efficacy and safety of vacuum aspiration over conventional dilatation & curettage (D&C), a joint recommendation by WHO and FIGO states that 'providers should abandon curettage and adopt MVA method'.

Provider's Eligibility:

Provider should be recognised by the MTP Act 1971 as an RMP approved to terminate a pregnancy. Site to provide MVA services also should be approved as per the MTP Rules, 2002 and MTP Regulations, 2003.

Indications for MVA:

- Induced abortion or incomplete abortion of up to 12 weeks gestation/uterine size
- Missed abortion and blighted ovum
- Hydatidiform Mole up to 12 weeks uterine size
- Removal of decidua with surgical removal of an ectopic pregnancy

Contraindications:

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

Special Precautions:

- Adolescents/ Nulliparous women/ Cervical stenosis

- Pregnancy with uterine fibroids
- History of caesarean section or uterine surgery
- Medical disorders such as: anaemia with haemoglobin below eight gms; bleeding disorders; hypertension; heart disease; renal disease; and Diabetes Mellitus

Counselling for MVA Procedure: In addition to the general counselling recommended for MTP procedures, the provider should give the following additional information to a woman:

- She 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
- The procedure will be completed in about 10-15 minutes. The woman can leave the health facility when she feels fit (usually within one hour) if done under local anaesthesia

Manual Vacuum Aspiration (MVA):

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.

Cannula

The following two varieties of plastic cannulae are available for use with MVA:

1. Disposable, single use cannula (Karman)
2. Autoclavable, reusable cannula (EasyGrip)

Two Types of Cannula

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

Pre-operative Care

Preparation for the procedure:

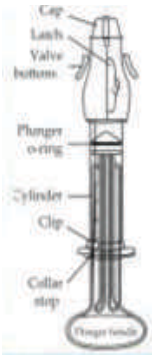
- Obtain informed consent for the procedure and fulfill all the statutory and procedural requirements of the MTP Act and Rules
- A dose of oral analgesic/antispasmodic may be given an hour before the procedure
- Administer a single dose of prophylactic antibiotic

Manual Vacuum Aspiration procedure

Step 1: Prepare Instruments

i. Charging the aspirator: Check that the aspirator retains vacuum, by charging it.

- 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



ii. Check aspirator for vacuum-a rush of air indicates vacuum was retained.

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

Step 4: Administer paracervical block

- Use Lignocaine one per cent (10 ml). Give the paracervical block using a 22 -24 gauge needle
- Insert the needle just under the epithelium at 4 and 8 o'clock positions and inject 2-4 ml of Lignocaine at each site. Proceed with MVA after 2-4 minutes for the local anaesthetic to be effective. 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 but can be given in pregnancies of more than nine weeks gestation (particularly in nulliparous women and women under 18 years of age). 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

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: Proceed with concurrent procedures such as sterilization or IUD insertion (if applicable)

Step 10: Instrument processing entails following four steps:

(I) Instrument Soak: This makes cleaning easier by keeping instruments wet. The use of an instrument soak in chlorine solution (0.5%) is an option which also assists disinfection

(ii) Cleaning: To clean the instruments wash all surfaces of instruments in warm water and detergent

(iii) Sterilization/High Level Disinfection: MVA and Easygrip cannula can be sterilized by steam and chemical sterilization. Boiling, Glutaraldehyde and 5 percent bleach solution can be used for HLD.

Post Operative Care Following Manual Vacuum Aspiration

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

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 as listed below:
   - Pain management with analgesics at discharge, NSAIDs (for example Ibuprofen)
   - Antibiotic therapy
   - 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/till bleeding stops/ uncomplicated case as soon as she desires to do so
   - Caution on possibility of getting pregnant almost immediately
   - Follow-up visit within one-two weeks
   - Explain warning signs (excessive bleeding/ severe abdominal pain/ vomiting/ fever)
   - A normal menstrual period should begin within the next three to six weeks

Follow-up visit within 1-2 weeks

1. Assess the physical status and vital signs.
2. Assess bleeding per vaginum.
3. Inquire about fever, pelvic or abdominal pain
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.

Complications and Management

1. Complications due to local anaesthesia:

They are rare with the appropriate dose and when care is taken not to inject the drug into a blood vessel. If the woman shows signs of sleepiness, disorientation, muscle twitching and shivering, slurred speech, generalized convulsions and respiratory depression, suspect reaction to lignocaine and 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.

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.

2. Complications due to Vacuum Aspiration Technique

i. Incomplete evacuation

ii. Continuation of Pregnancy

iii. Infection

iv. 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)
- Infertility
- Obstetric Complications: Adherent placenta and uterine rupture may result from a previous undiagnosed perforation
- Psychosomatic Conditions

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Suction Evacuation

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Suction Evacuation (also called suction abortion, vacuum curettage, suction curettage, vacuum aspiration, or minisuction) uses aspiration to remove uterine contents through the cervix with a plastic or metal cannula attached to a vacuum source, which may be either electrical or manual. The primary difference between the two types of vacuum aspiration is the source of the vacuum: Manual Vacuum Aspiration (MVA) uses a hand-held portable aspirator, whereas Electric Vacuum Aspiration (EVA) uses an electric pump or suction machine as a source of vacuum. Here we discuss the Electric Vacuum Aspiration.

History

Abortion has been widely practiced since ancient times and instruments for scraping uterine cavity existed in Greek and Roman civilizations. Vacuuming, rather than the use of a hard metal curette, was pioneered in 1958 by Drs Wu Yuantai and Wu Xianzhen in China. Dorothea Kerslake introduced the method in 1967 in the United States that further spread the technique.

Gestation Limit: Vacuum aspiration is a safe and simple technique for up to 12 weeks of gestation.

Clinical Uses: Apart from first trimester MTP, suction evacuation can also be used for evacuation of incomplete abortion or vesicular mole.

Contraindications:

- Untreated acute pelvic/ lower genital tract infection
- Uterus greater than 12 weeks size is a relative contraindication, as suction cannula often gets blocked by bulky products & fetal bones
- Suspicion of ectopic or perforation (from previous interference)

Place of operation: The procedure can only be performed in a place approved by MTP act which can be a clean, well lighted, clinician's room as well as an operation theater.

Primary or secondary health care facilities should have an identifiable referral linkage & access to transport arrangement to shift woman to next level of care, if required.

Pre-procedure care:

- Clinical assessment and investigations
- Counselling the women on the procedure and post abortion contraception is essential
- Documentation as per the MTP Act, and taking informed consent should be routine practice

Cervical priming prior to suction evacuation either with prostaglandins is often useful. Cervical priming is particularly indicated in young women, nulliparous, pregnancy more than 9-10 weeks and women with history of cervical lacerations or previous operation. Apart from making dilatation easier, it greatly reduces chances of cervical injuries & perforation.

Laminaria tents are not used nowadays.

Drugs. PGs like misoprostol and vaginal gemeprost for cervical priming in the following dosage schedules (WHO, 2003) can be used.

- Oral or Vaginal administration of 400 mcg misoprostol 3-4 hours before procedure
- One mg gemeprost administered vaginally 3 hours before procedure
- Injection 15 Methyl F2 alpha 250 mcg intramuscularly 45 minutes before the procedure

Equipments: Dilation with Hegars dilators is commonly practised. With prior use of cervical priming with PGs, need of dilation is greatly reduced.

Non-flexible plastic cannulae have replaced metal ones in recent times, which has helped in reducing rate of complications. Metallic dilators & cannula are sterilised by boiling/autoclaving, while plastic ones by chemical sterilisation. However heat (boiling/autoclaving) as well as chemical sterilization can be done for Ipas easy grip cannulae.

For aspiration, electrical suction machine that produces at least 25 inches or 625 mmHg negative pressure is commonly used. The set should be checked pre-procedure and must be leak proof.

Relief of Pain: Though intravenous sedation with local anaesthesia (Paracervical block) is common practise, short general anaesthesia may be required in apprehensive woman or in anticipated difficult procedures.

Technique: Procedure of suction evacuation involves dilatation followed by aspiration by cannula with help of suction.

After pre-medication; ensuring empty bladder and necessary anaesthesia, the woman is placed in lithotomy position. Parts are cleaned & draped. Importance of bimanual examination should be emphasised. After introducing Sim's speculum, cervix is held with sponge holding forceps. Though some clinicians sound uterus, but it is not advocate as its use increases the risk of perforation.

Dilation of cervix with set of Hegars dilator is done, up to dilator one number more than period of gestation. Some clinicians use gentle curettage to separate products before introducing suction cannula but this is not recommended. Also methargin prior to aspiration can be used to reduce blood loss & chances of perforation.

Suction cannula of number equivalent to period of gestation in weeks is used for aspiration (for example, for a pregnancy of 10 weeks, use of size 10 cannula.) Plastic or metallic cannula attached to suction machine is introduced inside uterine cavity. Vacuum is created and cannula is moved to & fro and rotated by 360^0. With this effect and negative pressure of vacuum, products are aspirated.

If little or no tissue is obtained, the following possibilities should be thought of:

- non- pregnant uterus
- ectopic pregnancy
- very early pregnancy
- false passage or uterine perforation
- uterine anomaly

Signs of completion of aspiration/ adequate tissue has been removed

- No active bleeding
- No more products aspirated
- Vibrations, or a gritty texture, felt in the hand holding the curette (known as the uterine "cry")
- Air bubbles are seen at external OS
- Cervical canal tends to close, movements of cannula become difficult. Injection Methergin may be given (0.2 mg i.m) at this stage, if not given already if the woman has already consented, IUCD may be inserted after completion of procedure

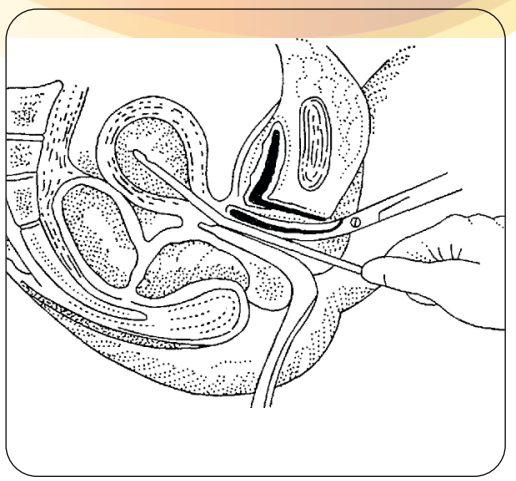
Post-procedure Care:

- Antibiotic prophylaxis
- Anti-D if woman is Rh negative
- Methargin to reduce bleeding/NSAIDs for pain
- Contraceptive counselling with contraceptive provision when requested
- Women should be observed for at least two hours after the procedure for hemorrhage prior to discharge
- Advised pelvic rest for 1-2 weeks, that is, no sexual intercourse, tampons, and douching
- Cramping is the most common side effect after this procedure. NSAIDs are generally most helpful
- To follow up after two weeks. However, the woman should be further evaluated early if she experiences uncontrolled pain, fever, chills, or continued heavy vaginal bleeding
- She should report if she experiences features of continuation of pregnancy

Complication

- Anaesthesic complications
- Bleeding (1-4 percent)

- Infection (0.1-1.5 percent)
- Uterine perforation (0.1-0.28 percent)
- Cervical laceration
- Bowel and bladder injury
- Asherman syndrome
- Incomplete evacuation of products of conception (24 percent) /continuation of pregnancy(1percent), warranting a repeat procedure
- Long term sequel- secondary amenorrhea, other menstrual irregularities, infertility, or recurrent abortion , ectopic pregnancy, preterm labour, Asherman syndrome



Advantages of suction evacuation:

- Requires shorter time
- Can be done comfortably with local anaesthesia in day care setup
- Ensures more complete removal of uterine contents
- Lesser blood loss; fewer major complications and risk of perforation when done by a trained provider

Given its safety and efficacy, it is no wonder that suction evacuation has largely replaced the traditional dilatation and curettage as the method of choice for first trimester abortions.

Second trimester abortion - Optimal use of Prostaglandins

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Introduction

More than one third of approximately 205 million pregnancies that occur each year worldwide are unintended and about 20% of them end in induced abortion[i].

A vast majority (90%) of these abortions take place during first trimester of pregnancy. Worldwide, 10-15 percent of all induced abortions occur during the second trimester. Overall, two thirds of all major complications of abortions are attributable to those performed in the second trimester[ii].

Since abortions performed in the second trimester account for a disproportionate amount of abortion-related morbidity and mortality, it is important to determine the most appropriate method for MTP in the second trimester. Medical methods, induction of abortion by various agents & devices have been most commonly used methods for second-trimester termination of pregnancy in many countries, though dilatation and evacuation is still practised in USA[iii,iv]. The introduction of prostaglandins in the early 1970s has revolutionized the management protocols in this area. Prostaglandin analogues alone, or in combination with mifepristone, have been shown to be effective for second-trimester abortion.

Prostaglandins cause cervical ripening and dilatation and stimulate myometrial contraction. Prostaglandin receptors are present in the uterus throughout pregnancy and thus PGs and their analogues are effective in termination in first and second trimester of pregnancy. The natural Prostaglandin were first tested clinically for medical abortion but because of high incidence of gastrointestinal side effects with parenteral or vaginal administration, were soon replaced by PG analogues. Prostaglandin analogues are relatively resistant to metabolism and have prolonged duration of action. PGE and PGF2α have been used clinically for second trimester abortion. The three most extensively studied PGE analogues are sulprostone, gemeprost & misoprostol. The other prostaglandin analogues that have been investigated are carboprost and metenoprost.

Nowadays PGE analogues, gemeprost and misoprostol, are the principal drugs used for second trimester medical abortion.

Gemeprost is a PGE1 analogue. It is administered as a vaginal pessary. Studies using a vaginal gemeprost-only regimen gave a complete abortion rate of 88-96.5% in 48 hours. The most common regimen is 1 mg every 3 hours for five doses in 24 hours. Additional doses may be required if abortion does not occur in this time. The mean induction to abortion interval ranged from 14 to 18 hours. Most common side-effects are vomiting, diarrhoea and fever. It was shown in one study that increasing the dosing interval to every 6 hours did not compromise the abortion rate or the induction to abortion interval. Cost and the need for refrigeration are the drawbacks with gemeprost which make its use practical only in developed countries.

Misoprostol is a synthetic PGE1 analogue. It is cheap, stable at room temperature and is readily available in many developing countries. A number of randomised trials have been conducted to compare the two analogues- gemeprost and misoprostol. A systematic review of six randomised trials on the use of vaginal misoprostol compared with gemeprost revealed similar efficacy, whereas misoprostol was associated with reduced narcotic analgesia requirement and surgical evacuation of the uterus[v].

Regimens of misoprostol: Various regimens of misoprostol with different doses and routes have been studied[vi]. A randomised trial compared three regimens of misoprostol: 200 μg misoprostol at 6-hours intervals, 400 μg misoprostol at 6-hours intervals and a loading dose of 600 μg misoprostol followed by 200 μg at 6-hours intervals. The results showed that among these three regimens, the preferred regimen for intravaginal misoprostol was 400 μg at 6-hours intervals as it was associated with a shorter commencement to abortion interval than the 200 μg regimen and fewer maternal side-effects than the 600 μg loading dose regimen[vii]. However, two other randomised trials showed that the regimen of vaginal misoprostol 400 μg every 6 hours is less effective than vaginal misoprostol every 3 hours. Both trials compared the regimen of 400 μg vaginal misoprostol every 3 hours up to a maximum of five doses with the regimen of 400 μg vaginal misoprostol every 6 hours up to a maximum of three doses in 24 hours. Both trials showed significantly shorter induction-to-abortion interval (15.7±8.5 hrs) in the 3-hourly regimen, with a higher incidence of fever in one trial[viii,ix]. Therefore, the 3-hourly regimen is probably the most optimal.

Misoprostol is effective for mid-trimester abortions, both orally and vaginally. The latter route is preferable because it requires lesser doses and produces a shorter induction-abortion interval. Sublingual administration of misoprostol can be offered to women who wish to avoid vaginal administration. In addition, the sublingual route may be a better option in cases of heavy vaginal bleeding, which may affect the absorption of the drug administered via the vaginal route.

In spite of proven efficacy, misoprostol is still not an approved method for termination of Pregnancy in the second trimester in India.

The use of 200mg oral mifepristone 36-48 hours before prostaglandin administration can increase the abortion rate, shorten the induction to abortion interval and reduce the PGs required in second-trimester abortion[x].

Other uses of prostaglandins in second

trimester abortions are : (1) intra-amniotic instillation, (2) for cervical ripening before dilatation and evacuation. Prostaglandins should be used cautiously in previously scarred uterus.

Conclusion

Medical abortion using PGs with or without mifepristone is a safe and effective method for termination of pregnancies in the second trimester. Gemeprost is the drug licensed for this purpose but misoprostol is a safe and cheaper alternative.

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Non-Medical Methods of Second Trimester Abortion

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Though second trimester abortions constitute only 10-15 percent of all induced abortions, they are responsible for two thirds of all major complications. To avoid these, it is necessary that second trimester abortions are performed as per criteria laid down in the MTP Act, with an appropriate method and necessary precautions.

Second trimester abortions can be performed only by registered medical practitioner with post graduate degree/diploma, or six months training/or one year experience in obstetrics and gynaecology, for indication mentioned in section-3 of the MTP Act, only after opinion is formed by two registered medical practitioners, at only tertiary or secondary level health care facilities or in private sector having all necessary facilities and approval from the district level committee (DLC).

Pre-procedure counselling, clinical assessment and basic investigations are important. Though sonography is not mandatory, if facilities are available, it may help to ascertain POG and location of placenta.

Induction of Abortion Methods:

This can be done by instillation of drugs, like ethacridine lactate, hypertonic saline, urea or prostaglandins, either extra-amniotically or intra-amniotically. Also devices like laminaria tent slow dilatation followed by oxytocin or mechanical stimulation by insertion of catheters in extra-amniotic space with or without solutions have been used successfully for induction.

The most commonly used methods have been extra-amniotic instillation of ethacridine lactate and intra-amniotic instillation hypertonic saline.

Extra-amniotic instillation of ethacridine lactate:

It is the most commonly performed safe method of second trimester abortion between 15-20 weeks gestation with efficacy of 95 percent.

It is contraindicated in women with renal disease and placenta previa, hence renal function test and sonography are advisable. The procedure involves instillation of 0.1 percent ethacridine lactate, an oxytocic, through a Foley's catheter inserted trans-cervically, in an extra-amniotic space.

After holding cervix with sponge holding forceps, No.16 Foley's catheter is introduced via cervix into uterus, in extra-amniotic space. Bulb is inflated by 20cc saline and catheter is pulled down so that bulb fits snugly over internal OS, preventing back flow of drug in vagina. Ethacridine is instilled through other channel of catheter, either by syringe or by drip method.

Volume to be instilled is POG in weeks × 10, but not more than 150cc at a time.

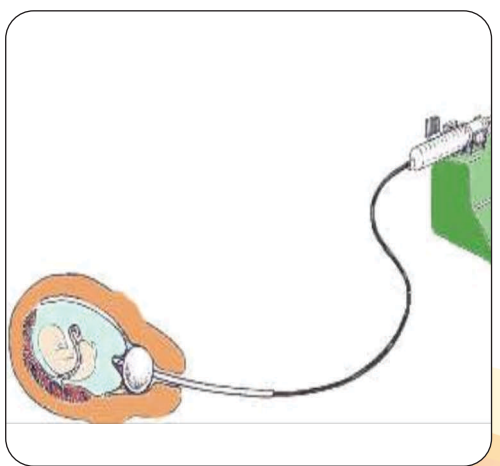
Catheter is wrapped to medial aspect of thigh. To expedite the procedure, ethacridine can be combined with oxytocin or prostaglandins. Foley's catheter may be removed after few hours and oxytocin drip started. Induction abortion interval ranges between 10-30 hours. Gentle check curettage may be required after expulsion of products.

The mechanism of action is believed to be stripping of the membranes with liberation of prostaglandins from the deciduas, mechanical stimulation because of catheter and fluid and dilatation of the cervix by bulb of the catheter.

Hypersensitivity or intra-vasation of dye, bleeding, introduction of infection, incomplete abortion and failure of procedure are some of the possible side effects/complications.

In case of failure to abort in 48 hours, repeat instillation with addition of prostaglandins or some other method may be used.

Apart from ethacridine, urea, hypertonic saline or prostaglandins (PG F2**α**) in saline or concentrated oxytocin can be instilled extra-amniotically.



Extra-amniotic instillation with Foley's catheter

Intra-amniotic instillation hypertonic saline:

Procedure involves trans-abdominal instillation of 20 percent hypertonic saline by needle introduced in intra-amniotic space (Amniocentesis), either blindly, with prior USG, or directly under sonographic guidance.

The mode of action is believed to be the liberation of prostaglandins following necrosis of the amniotic epithelium and the decidua. This causes uterine contractions and results in expulsion of the foetus.

It is contraindicated in women with cardiovascular or renal disease or with severe anaemia due to excess of sodium load.

Few deaths because of hypernatremia have been reported. Hypernatremia of mild to severe degree occurs in one in 200 patients with features ranging from thirst, headache, bradycardia, hypotension,to apnoea, convulsion, coma and cardio-respiratory arrest. Treatment involves immediate cardio-pulmonary support, intravenous dextrose infusion with 40-60mg of furesamide followed by monitoring of vital signs.

Need for trans-abdominal needle puncture, technical difficulties, needle injuries to abdominal organs and morbidity and mortality associated with hypernatremia along with availability of safer & effective alternatives have resulted in decline in use of this method over last few years.

Apart from saline, ethacridine, urea or prostaglandins (PG F2α) in saline can be instilled intra-amniotically.

In cases of gestation less than 15 weeks, use of transcervical route with 18-G spinal needle has been reported.

With advent & easy availability of mifepristone and misoprostol, use of induction methods has declined. But it

Intra-amniotic Instillation of Drugs

must be remembered that use of medical method using mifepristone & misoprostol is not approved in India for second trimester abortions.

Surgical Methods:

1. Dilatation and Evacuation:

It is mainly employed between 13-16 weeks of pregnancy for mid-trimester abortion. Prior cervical dilatation is done by using either laminaria tents or with misoprostol or rapid dilatation with metal dilators. This is followed by suction evacuation by larger canula or evacuation by ovum forceps of the products.

This procedure can be associated with many complications like failure of complete evacuation of uterus, uterine perforation, cervical lacerations etc.

2. Aspirotomy:

This procedure is performed to undertake termination of pregnancy beyond 14- 20 weeks of gestation.

The procedure involves initial slow dilatation with either laminaria tents or misoprostol followed by rapid dilatation during procedure by metal dilators up to no.14 to 16. Size 14 to 16 cannula is inserted; membranes are ruptured and amniotic fluid aspirated.

Aspirotomy forcep is introduced; fetal parts are grasped, crushed and extracted bit- by-bit and arranged outside to make sure that no foetal parts are left inside. Ultrasound guidance helps to protect against traumatic rupture of uterus and ensures complete evacuation.

An oxytocin drip is started to ensure good uterine contractions ensuring complete evacuation and reduced bleeding.

It is technically difficult, requires proper set up, training and skill and has much higher rate of complication, and hence is not a preferred method.

3. Hysterotomy :

Abdominal hysterotomy or mini cesarean section may be required as method of termination in the following Indications :

i. Woman with previous two or more cases of cesarean sections or other uterine scars.

ii. Placenta previa with risk of severe bleeding with trans-vaginal methods.

iii. Where other methods of medical termination have failed or are contraindicated.

iv. Rarely woman having vascular cervical lesion or cancer cervix, with risk of massive haemorrhage with vaginal methods.

Because of higher morbidity and mortality related with it, hysterotomy cannot be supported as a routine method of terminating second trimester pregnancy, even when it is to be accompanied with sterilisation.

Summary:

Though literature has proved the efficacy of misoprostol with or without mifepristone as a safe and effective method for second trimester abortion, it is not an approved method in India. Extra-amniotic ethacridine instillation remains the method of choice in most cases of second trimester abortions.

Infection Control in MMA and Surgical Abortion

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Introduction

Infection after abortion can lead to significant morbidity and mortality through endometritis, peritonitis, and sepsis. Though the number of women presenting with septic abortions has decreased with legalization of abortion, women can still present with infection after surgical or medical abortion secondary to operative injury or retained products of conception (RPOC). Infection is usually polymicrobial, associated with endogenous vaginal flora **(eg, group B ß-hemolytic streptococci, Bacterioides fragilis, Escherichia coli, Staphylococcus aureus),** pre-existing infections such as **Neisseria gonorrhoea, Chlamydia trachomatis**, and **Trichomonas vaginalia** or bacterial vaginosis (BV). There is increasing interest in the role of **Mycoplasma genitalum** in pelvic infection after abortion.

Five cases of fatal toxic shock associated with **clostridium sordellii** and two cases of fatal toxic shock associated with **clostridium perfingens** after medical abortion have been reported. C. **perfingens** has been associated with illegal abortion in the United States whereas clostridium tetani (tetanus) is associated with septic abortion in developing countries.

Approximately 0.1-4.7 percent of surgical abortions worldwide are associated with uterine infection, while that with medical methods range from <.5 to 1.6 percent.

Risk of infection comparing management strategies in medical abortion, surgical abortion or expectant management has been evaluated in a randomized controlled trial of 1200 women of less than 14 weeks gestation in the United Kingdom. It demonstrated that there was no difference in incident infection within 14 days of follow-up between the various management options. None of these women were screened for gynaecologic infection before intervention.

Management Strategy

Women presenting with septic abortion should be treated with intravenous broad spectrum antibiotics immediately. Traditionally, penicillin or ampicillin plus clindamycin and gentamycin were recommended. However, as septic abortion is essentially a form of endometritis or pelvic inflammatory disease, treatment with regimens recommended for these entities would also be focussed. The goal is to provide broad-spectrum antibiotics to treat aerobic Gram-negative and Gram-positive and anaerobic bacteria due to the polymicrobial nature of the infection. Alternative antibiotic choices for postoperative pelvic infections include second and third generation cephalosporins or higher antibiotics including piperacillin, ticarcillin/clavulinic acid, imipenim/cilastin, or levofloxacin. Individual institutional nosocomial pathogens or resistant organisms in the community such as methicillin-resistant S. aureus should be considered in severely ill or septic patients.

Evaluation for and removal of retained products should occur simultaneously to remove the source of infection and prevent further complications and sepsis. Laparotomy may be necessary if a woman is acutely hemorrhaging or if there is no response to removal of RPOC or antibiotics. Surgical exploration can be done to repair damaged blood vessels or organs such as the uterus, bowel, or bladder. Hysterectomy, in addition to oophorectomy, may be necessary if clostridial infection is suspected due to a dusky, discolored appearance of the uterus, crepitus in pelvic tissue, or radiologic findings such as air in the uterine wall. Abscess and purulent material should be drained and irrigated. Placement of drains, mass closure of the fascia, and delayed primary closure should be considered in cases of severe infection.

In MMA pelvic infection probably occurs less often than after suction aspiration. According to a review by Shannon and colleagues, the overall frequency of diagnosed infections was 0.92 percent among 46,421 women after MMA. However, there is increased attention to this issue owing to reports of 5 deaths in North America as a consequence of septic shock associated with Clostridium sordelli in the setting of medical abortions. Consequently many providers have moved to prophylactic antibiotic administration despite lack of research on the benefits. A common regime consists of doxycycline 100mg twice daily for seven days starting at the time of administration of mifepristone.

Prevention of Infection

Primary prevention of septic abortion is based on providing women with access to contraception and safe and accessible abortion services. Still, there isn't enough data to support use of antibiotic prophylaxis in MMA. However, antibiotic prophylaxis is recommended in women undergoing surgical abortion. The rate of postabortal endometritis can be reduced by 42 percent in the setting of antibiotic prophylaxis. A meta-analysis of 12 studies conducted between 1966 and 1994 comparing antibiotic prophylaxis versus placebo in women undergoing suction curettage at <16 weeks gestation showed that antibiotic prophylaxis was beneficial in preventing post-abortion infection.

Exact dosing and choice of antibiotics for prophylaxis is uncertain. In the above noted meta-analysis, statistically significant risk reduction was seen with different classes of antibiotics: A regime of 100 mg doxycycline orally one hour before the procedure and 200 mg orally after the procedure was found to be cost-effective, preventing 6500 cases of post-abortion infection and saving over USD 600,000 annually. More recently, a regime of flouroquinolone (prulifloxacin) antibiotic prophylaxis started one day prior and continued two days after abortion showed a statistically significant benefit compared with that started after the procedure.

Treatment of BV before first-trimester suction curettage has shown mixed results in terms of preventing infection. On the basis of various studies, it is unclear whether

preoperative screening and treatment for BV provides any additional benefit if standard preoperative prophylaxis is given.

Antibiotic prophylaxis in the setting of incomplete abortion requires further study. A randomized controlled trial of antibiotic prophylaxis in women with incomplete abortion undergoing suction curettage showed no difference in postabortal fever between groups, however, 31 percent of patients in this study were lost to follow up.

Thus, it can be summarized that, in the setting of legalised accessible abortion services, risk of postabortal infection is low. However, women who present with signs or symptoms of infection after abortion procedures need to be evaluated and treated expeditiously to avoid complications of endometritis, sepsis, and RPOC. Ultrasound can be a useful tool to evaluate RPOC, though the clinical significance of ultrasound findings is debated upon. Antibiotic prophylaxis is efficacious and cost-effective, and, therefore, should be the standard practice for women undergoing surgical abortion procedures.

Universal Precautions

The essentials of infection prevention in surgical abortion is the same as that applied to any other surgical intervention and helps minimise infection and 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 precautions.

The following are the basic elements of universal precautions:

- Hand washing
- Personal protective barriers
- Aseptic technique
- Handling of sharp items
- Instrument processing
- Waste disposal

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Complications of Medical Termination of Pregnancy

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Complications of medical termination of pregnancy (MTP) depend upon several factors, the most significant of these being the gestational age of pregnancy, the adequacy of supplementary medical facilities including proper equipment, and the skill of the provider. Pre-existing diseases and anaesthetic complications further add to the undesirable outcome of abortion complications.

Inspite of this, legally induced first trimester pregnancy termination is very safe, the risk of major complications being less than one in 100 procedures (Grimes et al, 1977). The risk of dying from the procedure is 11 times lower than the risk of dying from pregnancy and childbirth. (Cates et al, 1979)

Most abortion-related deaths are preventable when performed by a qualified provider using correct techniques under sanitary conditions (WHO 2003). Even then, 67,500 women die every year due to lack of access to safe abortion services and because they do not receive timely treatment

for abortion-related complications (WHO 2007). Globally, abortion complications constitute 13 percent of all maternal deaths. In India, there are 12,000 deaths each year due to MTP related complications (Banerjee 2007).

Complications of MTP are classified into three categories

1. Immediate complications:

Anaesthesic Complications

I. **Systemic toxic reaction:** Though very rare it is the most serious complication of local anaesthesia. This occurs because of inadvertent intravenous administration of the drug and can be prevented by ensuring that the needle is not in the blood vessel. The patient usually complains of parasthesia, drowsiness, vertigo, blurred vision, and twitching. There may be convulsion, vomiting or diarrhoea. Breathing may become rapid and shallow and cyanosis might occur.

ii. **Hypersensitivity and allergic reaction:** Sensitivity is not related to dosage and can occur even with sensitivity test. It may occur immediately or several hours after the procedure and is manifested by urticaria, bronchospasm, joint pains, swelling of eyelids etc.

2. Complication during procedure:

i. **Haemorrhage:** Prolonged bleeding is a known complication during the process of abortion. Such bleeding rarely is heavy enough to constitute an emergency. However, every service-delivery site must be able to stabilize and treat or refer a woman with haemorrhage as quickly as possible.

The incidence of blood transfusion varies from 0.05 to 4.9 per 100 abortions and quantity of blood lost varies from 100-1000 ml. The incidence increases for abortions performed later in pregnancy.

ii. **Pelvic infection:** may occur in 0.1-1.5 percent cases, and is mainly due to incomplete evacuation and septic technique. The symptoms generally appear on the second or third day after the procedure but can be delayed for upto 10 days. Infection should be prevented by proper sterilisation of all instruments and use of no-touch technique. Treatment is with antibiotics; and re-evacuation if there is evidence of retained products. It should preferably be done at an appropriate centre. Cases of peritonitis or septic shock should also be referred to a centre for proper management. Prophylactic antibiotics greatly reduce the risk of infection.

iii. **Perforation:** Another rare but dangerous complication is uterine perforation. MTP is a blind procedure and the pregnant uterus being soft is prone to perforation, which can occur while passing the dilator, curette or cannula. The risk of perforation is higher in certain cases such as nullipara where there is difficulty in dilating the os and may result in false passage. Acutely anteverted or retroverted uterus, repeated termination of pregnancy, fibroid uterus or septum distorting the uterine cavity, previous uterine surgery (caesarean section), misdiagnosed pregnancy during lactational ammenorhoea and multiparity are important predisposing risk factors. This can be minimised by proper assessment of uterine size and position by PV examination, by traction on the cervix with vulsellum to straighten the cervical canal while inserting instruments and using uterotonic agents. Small perforations with a dilator or curette can be safely managed conservatively. However, in case of suspected intestinal injury by a suction cannula, laparoscopy or laparotomy should be performed for confirmation and further remedial measures.

iv. **Cervical injury:** It encompasses a broad spectrum of trauma. Most common is superficial laceration caused by the tenaculum. Rare possibilities are cervico vaginal fistula and the longitudinal laceration ascending to the level of uterine vessels. To reduce the risk, use of PGs to ripen the cervix, use of local anaesthesia, slow dilatation of cervix, are recommended.

v. **Acute hematometra:** Also known as postabortal syndrome, it is a complication following suction curettage; its cause is unknown. Women with this condition develop severe cramping within two hours of abortion. Vaginal bleeding is less than expected. The woman may feel weak and sweaty, and her uterus large and markedly tender. Treatment consists of prompt repeat curettage. Use of oxytocics & evacuation of both liquid blood and clots leads to rapid resolution of symptoms.

vi. **Broken plastic cannula:** Occasionally the tip of the plastic cannula breaks off and remains in the uterus. If this happens, use a fresh cannula to complete the procedure. Do not keep exploring the cavity. The detached tip can be left in place and will usually be expelled spontaneously. Ultrasound guided removal may be of help.

vii. **Syncope (Fainting):** This is usually due to para sympathetic reaction to pain stimuli or due to too early ambulation after MTP. It may also be due to undetected excessive bleeding or perforation. Patient complaints of giddiness and sinking sensation. On examination there may be pallor, cold clammy skin, and weak pulse. Preoperative counselling, gentle handling during surgery and post-operative rest will minimise this complication.

Most of these complications can be minimised by proper anaesthesia pre-procedure, use of PGs, use of manual vacuum aspiration (MVA).

3. Delayed Complications

Delayed complications include incomplete abortion and failure of the procedure. In incomplete evacuation, the patient presents with excessive or prolonged bleeding per vaginum, fever or pain abdomen. On examination, uterine size would not have come back to normal. Internal os may be open or closed. Treatment is by re-evacuation under antibiotic cover. The risk of incomplete abortion can be reduced by correct technique, and by performing check curettage following vacuum aspiration. Vacuum aspiration fails in about one percent cases resulting in continuation of pregnancy. This is more frequent in smaller pregnancies of less than six weeks gestation. Other causes may be failure to assess the size and position of uterus, presence of fibroids leading to suction of cervical canal only rather than the uterine cavity, difficulty in dilatation resulting in formation of false passage and continuation of pregnancy, small size cannula with small openings, ineffective suction pump system, uterine anomalies etc.

Septic Abortion:

An abortion associated with infection and complicated by fever, endometritis, and parametritis, this remains one of the most serious threats to the health of women throughout the world. Morbidity and mortality from septic abortion are infrequent in countries where induced abortion is legal but are widespread in the many developing

countries where it is either illegal or inaccessible. Most women with septic abortion respond rapidly to uterine evacuation and broad spectrum antibiotics. Adequate IV infusions to maintain fluid and electrolyte balance and modification of antibiotics according to blood and discharge culture reports are recommended. Laparotomy for pelvic abcess or foreign body in the abdomen may be required in serious patients. Septic shock if developed needs to be treated aggressively and on critical care level.

Remote Complications

1. **Cervical Injury-**Permanent structural damage to cervix may result from rapid mechanical dilatation beyond 10mm. which may be forcible. This may lead to cervical incompetence, mid-trimester pregnancy losses and preterm births.
2. **Chronic Pelvic Pains-**Chronic pelvic inflammation following MTP may result in secondary infertility, ectopic pregnancy and menstrual disorders.
3. **Ashermann's syndrome-**It may occur due to vigorous curettage leading to secondary amenorrhoea and infertility.
4. **Obstetric complications-** Complications like adherent placenta and uterine rupture may occur during future pregnancies due to previous undiagnosed perforation.
5. **Psychosomatic Symptoms-**Long term depression may be seen sometimes, especially if the termination has been carried out for medical reasons or has been enforced by the woman's husband or family members.
6. **Rh Sensitization-**Chances increase with advancing gestational age at the time of termination.

Second trimester MTP is not as safe as first trimester if not performed by a trained provider. After the eighth week of pregnancy, the incidence of complications rises by about 15 -30 percent for every week of delay. The risk of mortality from a first trimester MTP is about 1.3 per 100,000 procedures. This rises sharply to about 15-20 per 100,000 procedures in second trimester abortions. Traditional methods of second trimester pregnancy termination (hypertonic saline, urea and ethacridine lactate) have given way to prostaglandins which are used either as vaginal inserts (PGE1) or as intramuscular injections (PGF2α). They frequently produce vomiting and diarrhoea, and should be used with caution in patients with pre existing medical illness like bronchial asthma, heart disease and in patients with scarred uteri. Rarely, in cases where there is failure of induction of abortion with medical methods, one may need to resort to aspirotomy or hysterotomy.

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Maternal Mortality and Abortions in India
A Perspective from FPA India

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Worldwide maternal mortality due to abortions has remained static, at 70,000 deaths per year. Most deaths still occur in sub-saharan Africa (38,000) and south-central Asia (24,000). This tragic and unnecessary toll follows from an unchanged rate of unsafe abortions: 14 per 1000 women of childbearing age, currently at 20 million annually. Thus, somewhere in the world a woman dies every eight minutes because of an unsafe abortion.

An estimated 6.4 million induced abortions take place in India each year. Abortion services were liberalised in India through the Medical Termination of Pregnancy (MTP) Act of 1971, which specified the conditions under which termination of an unplanned pregnancy could be done legally.

Unsafe abortion continues to be a major factor in maternal deaths in South Asia region with an estimated mortality of 13 percent[i]. In India it remains high at around nine percent. However, most deaths related to abortion and its complications go unreported or are attributed to other causes.

Unsafe abortion is a leading, though largely unaddressed public health issue in India. While the provisions built in the MTP Act were intended to reduce the incidence of illegal and unsafe abortions, they have not resulted in increased access to safe abortion. Even today, factors like a general lack of awareness of the availability of safe abortion services coupled with limited approved facilities distributed unevenly across the country continue to contribute to a high incidence of illegal and unsafe abortions.

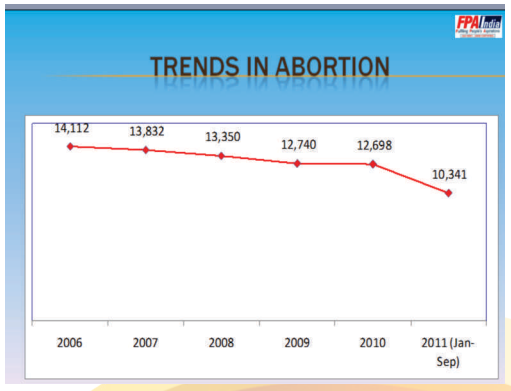
Overall, data on mortality and morbidity due to complications of abortions is limited. Studies based in health care facilities have reported a wide variation from 2.5 to 30 percent maternal deaths that can be attributed to complications of abortions[ii]. This translates in huge numbers of women, given the size of India's population and number of women in reproductive age.

In public sector settings, safe abortions are expected to be provided at the post partum centers or at rural hospitals which serve the entire block. However, it is not always feasible for women to access services through public sector health care for various reasons. Most of the primary health centers do not provide abortion services due to inadequate infrastructure for providing MTP services[iii].

Unsafe abortions and related complications occur almost exclusively in the poorer and vulnerable groups and communities. A poor woman in rural India is more prone to turn to traditional practitioners and unsafe abortion methods, and is thus three times more likely to experience complications of unsafe abortion and half as likely to receive medical treatment compared with a well-off woman in an urban area. Worldwide, eight million women have complications from abortion, but only five million receive the necessary care.

Most women who seek abortion services do so due to either an unwanted or unintended pregnancy. They are either unable to access contraceptives regularly or are not always able to use it correctly or consistently. Also, almost all methods have an inherent failure rate, family planning services cannot be relied on as the sole strategy for preventing unsafe abortions. Access to safe abortion is an integral part of a rights-based health care system.

Evidence from around the world clearly shows that where abortions are legal on broad medical and social grounds, and widely accessible through the formal health system, it is highly safe; whereas when it becomes illegal and clandestine, it is very often unsafe[iv].



In recent times the reported cases of safe abortions through Government sources show a steady decline. In FPA India clinics the numbers of women seeking safe abortions have declined marginally in the last three years. However, there is a very significant and steep increase in the numbers of women presenting with incomplete abortions at the time of first consultation itself. The number of clients seeking treatment of incomplete abortion has nearly doubled in the past two years. These women had sought abortions elsewhere and come to FPA India's clinics with signs of incomplete abortions.

The data in 2011 (Jan-September, 2011) from FPA India's service delivery points shows that around 25 percent of clients avail medical method of abortion. However, client history indicates that there is a large group of clients that avail these through unregulated sector. Unfortunately these clients are of younger age group and far more vulnerable to unsafe abortions.

Recommendations

1. Amendment of MTP Act

- The MTP Act unnecessarily over-medicalises abortion. Mid-level providers should be recognised as competent providers of safe abortions after due training
- Age of consent should be lowered to 16 years from current 18 years
- Removal of the word 'married woman' from the Act
- The need for a second doctor's opinion for second trimester abortion also adds another barrier to access
- The abortion law also provides for contraceptive failure as an indication for abortion only in the case of married women. While the law does not explicitly deny provision of services to others, there is scope in the present formulation of the law to refuse services to widows, single women, and unmarried adolescents and so on

2. Community awareness on the legality and availability of abortion services.

3. Expand the provider base through increased training facilities and revision of training module.

In India, we need to focus on abortions as a public health issue and rights-based service for women. There is a need for urgent, immediate, and multidimensional strategies to address the challenges.

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Perforation Drill

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Uterine perforation is one of the most serious complications (1-4 in 1000) of surgical termination of pregnancy (STOP). Healthcare personnel involved in the care of women undergoing STOP have to be well-versed in the prevention of perforation, early diagnosis and proper management of uterine perforation.

Uterine perforation can occur during sounding the uterine cavity, forceful dilatation of cervix (low risk) or during suction or curettage (high risk). Hence perforation can occur with the uterine sound, dilator, suction cannula or curette.

Complications of Perforation

1. Bleeding.
2. Injury to uterine vessels.
3. Visceral injury, especially intestinal.
4. Rupture of uterus in future pregnancy.

Prevention of Perforation

Proper training and adherence to proper technique is the key to preventing perforation.

The following key points have to be followed during each procedure:

1. Woman undergoing abortion should be counselled and given the option of medical method of termination if suitable.
2. A vaginal examination should be done to ascertain the size and direction of the uterus.
3. Pre-procedure use of misoprostol helps in cervical preparation and makes cervical dilatation easy. Misoprostol (400μg) given by oral or vaginal route, given 3-4 hours prior to procedure should be used in all cases of STOP.
4. Use of plastic cannula with manual vacuum aspirator reduces the risk of perforation.
5. Uterine sounding is not recommended.
6. If cervical dilation is difficult, it is useful to hold the anterior as well as the posterior lip of the cervix separately.
7. During dilatation of the cervix, the dilator should only be advanced to get past the internal os using a finger guard.
8. It is good practice to insert the cannula with the suction deactivated, go up to the fundus, activate the suction, start from the fundus and gradually withdraw the suction if traditional suction cannula (EVA) is used.
9. It is not necessary to curette the uterine wall following suction evacuation.
10. In case of anticipated difficulty, prior or intra-op sonography may be useful.

Pre-operative counselling

Women undergoing surgical abortion have to be counselled pre-operatively regarding a small risk of uterine perforation with a consequent risk of laparoscopy and/or laparotomy.

Diagnosis

Perforation should be suspected if any instrument suddenly goes in more than it should, or if there is sudden give way. Excessive bleeding is usually not a sign of perforation, but of incomplete evacuation. Prompt recognition of perforation is essential to minimise further complications.

Perforation Drill

1. Once perforation is suspected, stop the procedure immediately. It is helpful to recognise how the perforation occurred i.e., with which instrument and at what stage of the procedure.
2. Blood should be sent for cross matching.
3. If the perforation has happened with a dilator or the sound, the patient should be observed overnight in the hospital.
4. If the procedure is incomplete and a perforation has occurred with sound, dilator or curette, laparoscopy should be performed to check the site of perforation and look for any active internal bleeding.
5. The need and decision for laparoscopy should be explained to the relatives and consent obtained.
6. Laparoscopy should be performed by a skilled surgeon.
7. The termination can then be completed under laparoscopic control.
8. Uterotonics (e.g. misoprostol) should be administered as uterine contraction may stop any bleeding.
9. If the perforation has occurred with a suction cannula, laparotomy for thorough examination of the bowel (to rule out any injury) must be performed. If there is any doubt, a general surgeon should be called to inspect the bowel. However, in exceptional situations, a laparoscopy with detailed inspection of the bowel may be performed if the surgeon has the requisite skills for the procedure.
10. In case of bowel injury, repair of the injury or resection anastomosis of bowel segment may be required. A general surgeon should be involved in the procedure. In rare situation of rectal perforation, colostomy may be required.
11. If on laparoscopy there is active bleeding which cannot be tackled laparoscopically; or if there is a broad ligament haematoma (especially in lateral perforation), laparotomy may be required to achieve haemostasis.
12. In rare cases, hysterectomy may be required. Hysterectomy should only be performed if it is life-saving. The reason for hysterectomy should be explained to the relatives and informed consent obtained.
13. Following the procedure, the complication and the procedure performed should be explained to the relatives and documented in the notes.
14. Prior to discharge, complete details regarding the complication, the procedure undertaken, and future follow up should be given to the patient. This should be documented in the notes.
15. In case of large perforation, woman and her family should be counselled on possible risk of rupture uterus and the need of hospital delivery in future pregnancy.

Uterine perforation is a rare but serious complication of surgical abortion. Healthcare personnel performing surgical abortion must be properly trained to take steps to prevent perforation. They must be conversant with the perforation drill so that they can react promptly and efficiently if perforation occurs.

Post Abortion Contraception

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"Contraceptives should be used at every conceivable occasion." - Spike Milligan

Promoting the use of contraceptive method to prevent an unwanted pregnancy is one of the most effective strategies to reduce abortion rates and maternal morbidity and mortality.

By 2050, India's population is projected to reach 1.53 billion, making it the most populous country in the world. The current approach in family planning is to offer high quality contraceptive services among eligible clients, and laying stress on adequate spacing of births. As per the National Family Health Survey (NFHS)-3, the contraceptive prevalence in India is 56.3 percent, which varies widely among different states and the unmet need for family planning is as high as 13 percent .

Therefore, providing post abortion family planning services that include structured contraceptive counseling with free and easy access to contraceptive methods is desirable.

An Informed Choice Strategy

The principle of informed choice refers to decisions that people can make for themselves-not to a process that family planning programs and providers carry out. Nevertheless, programs, providers, and policy makers can do much to support people's ability to make informed family planning choices. Programs can do so best by adopting a strategy that covers five areas--government policies, communication programs, access to family planning, leadership and management, and patient-provider communication. This is where we as gynaecologists can help and make a difference. We are the service providers and we can help by providing a "cafeteria approach" and allow them to make their choice.

1. Give individuals their desired family planning method unless it is medically inappropriate.
2. Provide clear, unbiased information on the advantages and disadvantages of the various contraceptive methods and explain correct use of the chosen method.
3. Adapt counselling and advice to each individual's expressed needs and personal situation.
4. Refrain from judging the individual and from holding preconceived perceptions about what is best for them.
5. Respect each individual's decision even if they choose a less effective method than your advice.
6. Respect the individual's decision to switch from one method to another.
7. Respect an individual's decision to refuse any or all services.

Post – Abortion contraception

A woman's fertility can return quickly after an abortion or miscarriage- as soon as two weeks after (Bongaarts 1983). Yet recent data show high levels of unmet need for family planning among women who have been treated for incomplete abortion. This leaves many women at risk of another unintended pregnancy and in some cases subsequent repeated abortions and abortion related complications. (Savelieva et al 2002). Thus it is vital for programs to provide a comprehensive package of post abortion care services that includes medical treatment, family planning counselling and other reproductive health services such as evaluation and treatment of sexually transmitted infections.

Post abortion contraception choice is given below in the table

Method	Time of administration	Advantages	Remarks
OCPills Combined and progestin-only	May be given immediately after abortion using vacuum aspiration or confirmation of completed medical abortion	• Highly effective • Can be started immediately, even if infection is present • Can be provided by non-physicians • Does not interfere with intercourse	• Requires continued motivation and daily use • Resupply must be available • Effectiveness may be lowered with long-term use of certain medications, including rifampin, dilantin, and griseofulvin
Progesterone only contraception DMPA, NET-EN	May be given immediately after abortion using vacuum aspiration or confirmation of completed medical abortion. May be appropriate for use if the woman wants to delay choice of a longer-term method	• Highly effective • Can be started immediately, even if infection is present • Can be provided by non-physician • Does not interfere with intercourse • Not user-dependent, except for remembering to come for injection every two or three months • No supplies needed by user	May cause irregular bleeding, especially amenorrhea; excessive bleeding may occur in rare instances · Delayed return to fertility after stopping use. Must receive injections every two or three months

Method	Time of administration	Advantages	Remarks
Intra-Uterine Device	Can be inserted after abortion using vacuum aspiration or after next cycles	• Highly effective long-term contraception; effective for 5-10 years, depending on the type • Immediate return to fertility following removal • Does not interfere with intercourse • No supplies needed by user - requires only monthly checking for strings • Only one follow-up visit needed unless there are problems	• May increase menstrual bleeding and cramping during the first few months. • May increase risk of pelvic inflammatory disease (PID) and subsequent infertility for women at risk for RTIs and STIs (HBV and HIV/AIDS) • Trained provider required to insert and remove
Tubal Ligation	To be performed after next menstrual cycle	• Permanent method • Highly effective • Once completed, no further action required • Does not interfere with intercourse • No change in sexual function • No long-term side effects • Immediately effective	• Adequate counseling and fully informed consent are required • Slight possibility of surgical complications • Requires trained staff and appropriate equipment
Condoms	As soon as sexual activity is resumed	• Prevents STDs, including HIV/AIDS • Safe. No hormonal side effects • Can be used without seeing a health care provider first • Usually easy to obtain and sold in many places • Enables a man to take responsibility for preventing pregnancy and disease	• Latex condoms may cause itching for a few people • Small possibility that condom will slip off or break during intercourse

Method	Time of administration	Advantages	Remarks
Vasectomy	Is independent of the abortion procedure	• Very effective • Permanent • No interference with sex • No supplies to get, and no repeated clinic visits required • No apparent long-term health risks	• Not immediately effective. At least the first 20 ejaculations after vasectomy may contain sperm. The couple must use another contraceptive method for at least the first 20 ejaculations or the first three months-whichever is sooner • No protection against sexually transmitted diseases (STDs) including HIV/AIDS.
Emergency Contraceptive Pills	May be used immediately after abortion using vacuum aspiration or confirmation of completed medical abortion	Important back-up method when contraception fails for example, condom breaks, when no method is used or when intercourse is forced	• Providing emergency contraceptive pills in advance as a back-up method may help prevent future unwanted pregnancies • No protection from STIs/HIV • Generally less effective than other contraceptive methods • May have side-effects such as nausea and vomiting

* This information applies to methods after first trimester abortion. Male and female condoms are the only methods that provide protection against transmission of STI/HIV; they can be used in conjunction with all other methods.

Conclusion:

Every year India adds the population of Sub-Saharan Africa to the Earth.

Improved obstetric services and child spacing could reduce maternal mortality in developing countries as they have in the developed world. Contraception should become a people's movement rather than be forced upon the people. People should insist on good quality, affordable contraceptive services as their basic right.

Contraception for Adolescents

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Introduction

Adolescence is the period of physical, psychological and social maturing from childhood to adulthood. The term "adolescent" refers to individuals between the ages of 10–19 years. In India, adolescents comprise more than one fifth (22%) of the total population. A large proportion of adolescents, both married and unmarried, are sexually active. Due to unpredictable lifestyle, risk taking behaviour, lack of adequate knowledge along with misinformation about use of contraception, large number of sexually-active adolescent girls become pregnant each year, and most of these pregnancies occur within the first six months of sexual activity. Pregnant adolescents often resort to unsafe abortion leading to high morbidity and mortality. Hence it is necessary to have special consideration about their contraceptive needs.

In search of the best contraceptive method, adolescents look for safety, convenience, privacy, and efficacy as the most important factors in choosing a contraceptive method.

Commonly-used contraceptives amongst adolescents:

Hormonal contraceptives

In recent years, oral contraceptives, especially the low dose pills, have been commonly prescribed for adolescent girls having PCOS and is the contraceptive method of choice for sexually-active adolescent girls. They can be safely recommended to most of these girls with only few absolute contraindications restricting their use.

All adolescents should be given thorough counselling regarding the regular use of pills, possibility of failure if not taken regularly, benefits like regular menses and the relief of dysmenorrheal and minor side effects such as nausea, weight gain in few, which can lead to stopping the pills.

Recent trends in improving COCs have focused on lowering hormonal doses to 20 mcg estrogen, shortening the hormone-free interval (to counter the symptoms associated with lower-dose regimens), introducing new estrogens and progestins, and most recently, developing a quadriphasic regimen. New generation pills containing cyproterone, levonorgestrel, or desogestrel and drospirenone also have benefit of reducing features of PCOD, premenstrual dysmorphic disorder (PMDD) and acne.

The progestin-only contraceptive pill has been shown to have similar efficacy to the combined oral contraceptives (COCs). Unfortunately, given its short half-life, failure rates may be more because of patient noncompliance with the proper timing of the pill, which requires taking it around the same time (within three hours) each day.

The short-term side effects of COCs, such as nausea and weight gain, are usually transient and may be overshadowed by their beneficial effects.

More serious potential adverse effects of exogenous estrogen such as thrombophlebitis, hepatic adenomas, myocardial infarction, and carbohydrate intolerance are exceedingly rare in adolescents. An initial thought for younger adolescents regarding the potentially unknown effect of estrogens on epiphyseal growth is no longer a concern. Hence there is no need to worry regarding bone development and height.

Some long-range beneficial effects of estrogen use include decreased risks of benign breast and ovarian disease, and anemia and have shown to have higher levels of cardioprotective high-density lipoproteins than controls.

Contraindications to the use of estrogen-containing COCs include hepatocellular disease, migraine headaches, breast disease, any condition in which hypercoagulability may be a problem (replaced cardiac valve, thrombophlebitis, sickle cell anemia).

The contraceptive transdermal patch uses the technology of a medicated adhesive that allows the skin to absorb and maintain a constant hormonal level without the fluctuations seen with orally absorbed forms. Advantage of weekly dosing and cycle control helps in greater acceptance and adherence rates than COCs.

The vaginal contraceptive ring (ethinyl estradiol [15 mg]/etonogestrel [120 mg]) is another approved method of birth control. This method requires motivation from the user to insert and remove the contraceptive device from the vagina once a month and has not been well studied in adolescents. Preliminary results indicate favorable acceptability when compared with the OCP.

Long-acting injectable medroxyprogesterone acetate is a useful method but weight gain and irregular bleeding are common and unpleasant side effects for adolescents. A recent concern has been the effect of the hypoestrogenic state created by long-term use of DMPA on bone density in adolescents. However, The WHO suggests that the advantages of using DMPA generally outweigh the theoretic safety concerns regarding fracture risk in the adolescent population (younger than 18 years of age).

One must caution the adolescent that the hormonal methods do not provide protection against sexually transmitted diseases, so concomitant use of condoms should be recommended routinely.

Emergency Contraception

Emergency contraception is now readily available and ought to be offered to adolescent girls who have had unprotected intercourse. Ideally the emergency contraception is taken in the first 24 hours after coitus, but it may be given upto 72 hours of intercourse. The most efficient method consists of levonorgestrel, 1.5 mg, divided in two doses taken 12 hours apart. A recent Cochrane review showed that taking a single dose of levonorgestrel, 1.5 mg, may be as efficacious as when it is taken in divided doses, possibly increasing compliance. It is important to inform the adolescents, not to use this as primary method of contraception. Proper counselling is essential for its use.

Condoms

Condoms are an ideal choice for contraception, especially for prevention of STIs. They pose no significant medical risk to

adolescents and provide protection against sexually transmitted diseases, as well as prevent pregnancy. Condoms do not require a prescription, can be bought easily and kept readily available by adolescents who have intercourse infrequently and sporadically.

But counseling regarding consistent and proper use should be stressed. Female condoms are not available everywhere in India and education is needed about its use. Even in countries where they are readily available they have not gained great popularity.

Intrauterine devices

The experience with IUDs and intrauterine systems (IUSs) in adolescents is limited. Traditionally, use of an IUD or IUS has been avoided in adolescents, because of the increased risk of sexually transmitted infections (STIs) in adolescents and the dynamic nature of their sexual relationships. However, in recent studies, there has not been an increase in infertility or STI incidence with the use of these devices.

Conclusion

The use of appropriate contraception is especially important in adolescents as this age group matures and becomes capable of reproduction. Adolescent contraception should be an integral part of education and requires collaboration between providers, adolescent girls and, sometimes, their parents. New contraceptive methods allow teens to choose from a variety of convenient, safe, reliable, and confidential options. Last but not the least a good awareness program starting from high school days is essential to spread this knowledge.

The Adolescent Health Committee FOGSI Website:

http://adolescenthealthindia.org
& a documentary film

http://www.youtube.com/watch?v=NsR0H0ril20 for spreading the awareness.

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Medico-legal Aspects of MTP

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MTP is the most common and probably one of the first surgeries that any gynaecologist performs when he or she starts private practice. While the gynaecologist may have fulfilled all the requirements to start his clinic or nursing home or hospital, it is very important that s/ he fulfills the requirements of a legal MTP. The reason is that MTP in our country is governed by an Act and contravention of the Act amounts to criminal offense against the State and is liable for punishment.

Described below is a step by step approach for doing MTP in private practice which is safe medicolegally and clinically.

1. Determine whether you are qualified to perform MTP, as per the MTP Act. If not, one should appoint a provider qualified to do so.
2. A provider who is eligible as per the MTP Act, can prescribe the drugs (approved by the Drugs Controller General of India) for medical abortion at any place (like his clinic) which itself may not be a recognised MTP centre. However, following points should be ensured.
    - Possession and display of a certificate from the owner of a recognized MTP center allowing the concerned practitioner to report the case and perform evacuation in case of incomplete abortion.
    - Reporting of case as per the law
    - It must be understood that all obligations and liabilities are equally applicable to medical methods

Some medicolegal tips for MTP by medical method are:

- Confirm intrauterine pregnancy by TVS if available or counsel about ectopic pregnancy
- Do not forget to document that you have asked the woman to follow up in case of pain/fever/excessive bleeding
- If available, follow-up USG to rule out incomplete MTP
- Counsel that in case of failure, surgical termination is advisable

3. If one is planning to start offering MTP services by surgical method in his/her center, one has to apply for registration of the center. Following the 2002 amendment the appropriate authority for registration has been decentralized (section 4). A 3-5 member district level committee (DLC) is formed with the chief medical officer or civil surgeon as the chairman having at least one female member and gynaecologist/ surgeon/ anaesthetist.

Application is made in form A. On receiving the application, the appropriate authority inspects the center within two months and sends recommendation to the committee. The committee finally approves or rejects the application within the next two months. Approval is given in form B in duplicate. One copy of form B has to be displayed visibly in the center

4. Before the appropriate authority visits the center for inspection, confirm that the center fulfills all the requirements. These are very simple and basic requirements which almost all nursing homes can easily fulfill

Minimum requirements are as follows:

In case of first trimester, that is, up to 12 weeks of pregnancy:-

- A gynaecological examination table
- Resuscitation and sterilisation equipment as notified by the Government of India
- Drugs and parenteral fluids as notified by the Government of India
- Back up facilities for treatment of shock and
- Facilities for transportation

In case of second trimester, that is, up to 20 weeks of pregnancy:-

- An operation table and instruments for performing abdominal or gynaecological surgery
- Anaesthetic equipment, resuscitation equipment and sterilisation equipment
- Drugs and parenteral fluids for emergency use as may be notified by Government of India from time to time

5. Read Form B (of approval) carefully. This is to confirm whether the center has got approval for MTP only in first trimester or up to 20 weeks of gestation. In cases of first trimester MTP, opinion of only one registered medical practitioner (RMP) is required. But in cases of second trimester MTP, opinion of two providers who are qualified under the MTP Act is a requirement. Presently MTP is not allowed beyond 20 weeks of pregnancy.

6. Study all the documents that the center receives upon getting registration. The list is as follows:

- FORM A: APPLICATION FOR APPROVAL OF PLACE UNDER CLAUSE (B) OF SECTION 4
- FORM B: CERTIFICATE OF APPROVAL SUB-RULE 6 OF RULE 4. TO BE DISPLAYED
- FORM C- CONSENT FORM RULE 8
- FORM 1: RMP OPINION FORM
- FORM 2: MTP REPORTING FORMAT
- FORM 3: MTP ADMISSION REGISTER

7. Observe following steps while performing any MTP

- Step no 1: Take the consent of the woman in Form C
- Step no 2: Complete Form I —RMP opinion form
- Step no 3: Complete the MTP procedure
- Step no 4: Fill the Form 2-MTP reporting format
- Step no 5: Put the two forms (Form C; and Form 1) in an envelope:
  - Write name and address of the RMP (of both RMPs in case of second trimester MTP)
  - Put the serial number of the woman as assigned in the admission register
  - Write the date of MTP
  - It is marked as SECRET and sealed
  - Step no 6: Send it to the owner of the center for his/her custody
  - Before the 5th of every month, the owner of the center is supposed to send a monthly statement of the MTP cases in Form II to the chief medical officer of the district or MOH in case of municipal cities. It is an offense if reporting is not done

Consent in Form C should be an informed one. If the woman is an adult (>18yrs) her own consent is enough. Husband's consent is legally not required. If the woman's age is less than 18 years, a guardian's consent is needed. As Form C doesn't mention indication for MTP, it may be advised to take separate signature on another consent form designed by FOGSI.

Indications for MTP are mentioned in Form 1 or the RMP opinion form which we have to fill before performing the MTP.

We need to remember that 'MTP on demand' is not an indication. And 'failure of contraception' is applicable only to married women. However, we need to mention which method failed on the OPD/indoor paper.

- For unmarried woman the proper indication is "in order to prevent grave injury to physical and mental health of the pregnant women" unless there is a history of rape
- In case of rape one has to remember that rape is a cognizable offense which means police can arrest the accused without warrant. Our responsibility with regards to reporting a case of rape to police has following points:

i. If the girl is a major and does not want to report the rape
   - Inform police that you are treating a rape victim and performing the MTP but that she does not want to disclose her name
   - Onus of maintaining the secrecy is now with the police

ii. If the girl is minor and less than 15
   - It has to be reported because sex in <15years is rape even if done with consent

iii. Between 15 and 18 yrs is grey zone area
   - Report rape in any case.
   - Inform name if guardian accepts.

8. One has to remember that the MTP Act recognizes and protects the right to secrecy of the woman and hence her name has to be kept a secret even from her husband.

Once a woman comes to us for MTP, enter her name in the "admission register" and assign her a number. Such numbering should start afresh every year e.g 1/2010, 2/2020, 3/2010 and so on. From now onwards her name cannot be entered in the indoor paper, OT register or discharge card. She has to be addressed only by the number assigned in the admission register. Admission register has to be maintained for five years as a confidential document. Special situations when this document needs to be shown are

- To the Secretary to Govt. of India doing departmental inquiry
- To first class Magistrate doing inquiry
- To Court of Law where a court case for MTP is going on

- To a woman who applies for the same on some valid grounds.

9. The provider is liable for punishment amounting to 2-7 years of imprisonment if MTP is not done in accordance with the MTP Act.
10. There is a section in the Act (section number 8) which protects us from medicolegal case in MTP, if done in accordance with MTP Act.

Some landmark MTP cases

1. Dr. Mrs. Gayatri S Bhatwal Vs Smt Mangal S Dhake:

   This was a case of MTP failure but the forum observed the following:

   - Doctor was RMP under the Act
   - Center was recognized
   - All documents were maintained
   - Indication was valid
   - "100% termination is a myth"
   - Provider is immune due to section 8

2. Surendra Chauhan Vs State of MP 2000: Electrohomeopathy doctor performed second trimester MTP. Since he was not an RMP under the Act he was penalized a fine of Rs 25,000/- along with rigorous imprisonment of one and half years.
3. Vinitha Ashok Vs Laxmi Hospital (SC): Case of cervical pregnancy which bled and died in spite of caesarian hysterectomy. Complainant's plea was that USG was not done before MTP. Supreme Court concluded that USG is not necessary to be done before MTP.
4. P N Bhaskaran Vs Mrs. Molly Robinson Kerala SCDRC: State forum concluded that less than six weeks MTP are likely to fail. Both D&C and suction evacuation are methods of MTP.

Government of India's Comprehensive Abortion Care: Training and Service Delivery Guidelines

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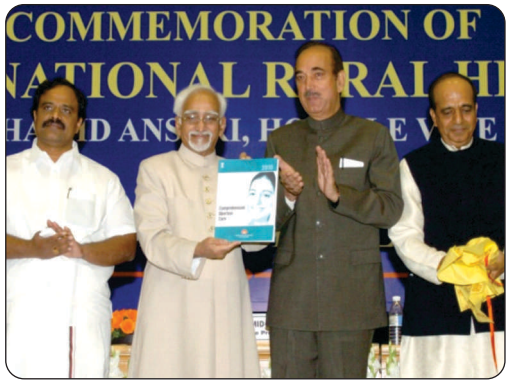
Background

During the last few years, the Government of India has intensified its efforts to systematically expand and improve health service delivery with a special emphasis and comprehensive approach to maternal including reproductive health. The efforts are bearing results and we have seen a gradual decline of MMR from 398 in 1997-98 to 212 in 2007-09. However, we still need to continue to expand access and quality of services, especially in rural, remote and inaccessible areas of states with poor health indicators, 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 the Government of India's reproductive health strategy. 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 through an intensive consultative process prepared the "Comprehensive Abortion Care-Training and Service Delivery Guidelines".

On April 12, 2010, the Honorable Vice President of India released the Comprehensive Abortion Care Guidelines. The guidelines endorse a comprehensive approach to abortion care and aim to enhance the availability and quality of safe abortion services in the country. Information is provided on modern and safer abortion technologies- Manual Vacuum Aspiration



The Vice-President of India releasing the guidelines for CAC training and service delivery.

(MVA) and medical methods of abortion-legal issues, counseling and pre- and post-abortion care, first- and second- trimester abortions, infrastructure requirements and an operational plan for capacity building of service providers.

This article is an excerpt from the guidelines to provide key information to abortion providers on service provision and quality of care. However, space constraints limit the authors from including guidelines on second trimester abortions, infrastructure requirements, abortion complications, etc.

Abortion and Law

Consent Requirements for Abortion

Consent of the woman whose pregnancy is to be terminated has to be obtained in Form C (as specified under the MTP Rules 2003). Only consent of the woman is required. However, if the woman is minor or mentally ill, consent of guardian needs to be obtained.

If the pregnancy is of less than 12 weeks, opinion of one registered medical practitioner is required. If pregnancy is more than 12 weeks but less than 20 weeks, opinion of two registered medical practitioners is required. The form for the same is RMP Opinion Form, Form-1-as specified by the MTP Regulations, 2003.

Approval for legal service provision from private clinics

A private sector facility can obtain approval for legal provision of abortion services by a District Level Committee[1] (DLC) constituted by the government. The MTP Act lays down separate requirements for provision of services in the first and second trimester, making it easier for providers to obtain approval in case of only first trimester services.

Before an Abortion

Laboratory investigations before an abortion procedure

Following laboratory investigations should be done before undertaking an abortion procedure:

- Hemoglobin
- 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 type of infection.

All primigravidas and women undergoing 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 50mcg and second trimester MTP will be 300mcg.

Pre-procedure counselling

The following should be covered during pre-procedure counselling of a woman undergoing an abortion:

- Range of available options of MTP procedures based on gestation
- Details of the procedure chosen by her
- Likely risks associated with the procedure
- Immediate risk of pregnancy (within 2-6 weeks) if no contraceptive method is used
- When to return for follow-up

Pre-operative care before a VA procedure

- 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 (1gm) or alternatively Amoxicillin Trihydrate, Cephalexin or a suitable alternative.

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 and risks of immediate complications are reduced.

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

Medical Methods of Abortion (MMA)

Place of service provision

According to the MTP Act, a registered medical practitioner, can prescribe MMA 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 the 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 access for referral to an MTP approved site.*

Contraindication

- Confirmed or suspected ectopic pregnancy or undiagnosed adnexal mass
- 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
- Inherited porphyria
- Glaucoma
- Allergy or intolerance to mifepristone/ misoprostol or other prostaglandins .

USG for women undergoing MTP by medical methods

Ultrasonography (USG) is recommended in the following conditions for a woman undergoing medical termination of pregnancy (MTP):

- When a woman is unsure of her LMP or has conceived during lactational amenorrhea
- When a woman has irregular cycles
- When there is discrepancy between history and clinical findings
- In case of suspicion of ectopic pregnancy (having symptoms such as irregular vaginal bleeding, pelvic pain, or adnexal mass or tenderness)
- When provider is uncertain with the examination results, or is unable to measure the uterine size due to obesity, pelvic discomfort or lack of co-operation from the woman

Drug protocol and gestation

Protocol for Mifepristone and Misoprostol

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

For provider's information: For MTP of gestation between 49-63 days the Central Dugs Standard Control Organization, Directorate General of Health Services has approved a Combipack of one 200 mg tablet of mifepristone and four 200mcg tablets of misoprostol.

Home administration of misoprostol

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

- Antiemetics
- Analgesics
- Additional dose of misoprostol (to be repeated if required)

Repeating the initial dose of misoprostol

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 (more than two pads per hour for two consecutive hours or more) during the abortion process. If the bleeding does not get controlled even after the repeat dose of misoprostol, surgical evacuation may be considered

Contraception following MTP through MMA

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

Post Abortion Contraceptive Methods

Method	Timing after Abortion	
	1st trimester	2nd trimester
Barrier Methods		
Condoms	As soon as sexual activity is resumed	As soon as sexual activity is resumed
Intrauterine Device		
Intrauterine 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
Hormonal Contraception		
Oral Contraceptive	Immediately after abortion using surgical method	Immediately after abortion using surgical method
Long Term Injectables -DMPA, NET-EN	Immediately after abortion using surgical method	Immediately after abortion using surgical method
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
Permanent Methods		
Female Sterilization	Can be performed immediately after an abortion in the absence of any infection or severe blood loss (Both minilap and laparoscopic sterlization can be done)	Minilap tubal litigation can be performed immediately after an abortion in absence of any infection or severe blood loss (But not laparoscopic)

Things to remember

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

Refusal to accept post-abortion contraception

If the woman is not willing to accept contraceptive methods post-abortion:

- MTP should not be denied to any woman irrespective of her decision to refuse concurrent contraception, as she is likely to go elsewhere, probably to an illegal abortion provider where she may suffer complications
- Assure the woman she would not be refused MTP
- Counsel her again on post abortion contraception, at a suitable time, perhaps when she comes again for follow-up. Also encourage her to bring her spouse

Conclusion

The Government of India Comprehensive Abortion Care (CAC) Training and Service Delivery Guidelines are designed to provide holistic knowledge in all aspects of abortion care and help increase access to safe and women-friendly abortion care for the women in our country. This is an essential reference document for any provider offering abortion services in the country. The challenge is to make optimal utilization of these guidelines to ensure quality safe abortion services to women in both public and private sectors, all over the country.

[1]DLC has Chief Medical Officer or District Health Officer as its Chairperson. The DLC comprise of not less than 3 and not more than 5 members including the Chairperson. One member of DLC is a gynecologist/surgeon/Anesthetist and other members from the local medical profession, non-governmental organization, and Panchayati Raj Institution of the district. One member of the committee is woman. Tenure of the committee is of two calendar years and the tenure of non-government member is not more than two terms.

Increasing access to comprehensive abortion care services in India.

Project conveners:

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"Statistics are human beings with the tears wiped off"- Paul Brodeur

This was an unique multistakeholder project focusing on increasing access to legal, safe and comprehensive abortion services including post abortion family planning services in the PHS with a focus on the rural poor. The partners in the project were ARTH, Population Council, CEHAT, FPA India, FOGSI, SoMI, IMCH / Uppsala University and Ipas. The project was funded by the Sida (Swedish International Development Agency) and the Packard foundation with contributions of USD 1.1 and 0.7 million respectively.

Objectives Of The Project:

- An effective district level model for Comprehensive Abortion Care (CAC), including post abortion family planning services is developed and implemented in the public health system for improving supply and demand of safe and legal abortion services in the two districts
- Pilot models developed and implemented for expanding provider base and technology choices for safe abortion services in public health system
- Effective implementation of MTP Rules & Regulations in two states resulting in increased access to safe and legal abortion services
- Recommendations based on studies made to national and state governments that enables policy, legal and implementation changes

Major Achievements:

The project achieved several major accomplishments, including:

Piloting a model for CAC service delivery in two selected districts – Aurangabad (Maharashtra) and Tonk (Rajasthan) – that:

Achieved ownership by the state governments of the district level model to ensure availability of safe abortion services at facilities where they were not available prior to the intervention.

Over 1,800 community health intermediaries had been oriented to spread awareness in the community on legality and availability of safe abortion services.

This was followed by meetings in 150 village panchayats and with 600 women groups, radio programs, street plays, screening of docudrama and display of posters and wall paintings.

Efforts aimed at awareness generation were also complemented by strengthening of services at 30 health facilities through training of medical officers and nursing staff.

Table 1: Key Findings from the Endline Assessment of the District-Level Intervention in Tonk, Rajasthan

Indicator	Tonk (Intervention)		Bundi (Control)	
	Baseline Aug-Nov 2007	*Endline* Aug-Oct 2010	*Baseline* Aug-Nov 2007	*Endline* Aug-Oct 2010
Percentage of PHCs where Medical Termination of Pregnanacy (MTP) services are currently available	0	18	0	0
Percentage of PHCs with at least one MTP-trained doctor	7	42	0	8
Percentage of PHCs with Information, Communication, and Education materials on legality and availability of abortions	2	93	4	0
Total number of abortions conducted	---*	107	---	---
Percentage of women who received abortion-related information through any source	20 (n=940)	25 (n=922)	17 (n=1013)	20 (n=925)
Percentage of women with awareness of surgical method of abortion	70 (n=940)	83 (n=922)	77 (n=1013)	77 (n=925)
Percentage of women who misperceive that abortion is illegal in at least one valid condition	71 (n=940)	61 (n=922)	74 (n=1013)	55 (n=1013)

* No data available. In Tonk, abortion caseload was not collected at the baseline because the PHCs were not performing. In Bundi, the control district we did not collect this data.

Trained a pool of CAC-trained doctors and nursing staff regularly offering CAC services.

Increased awareness among women about the legality and availability of safe abortion services at public health facilities.

Increased the number of safe abortions over a period of three years, as demonstrated by an increase in abortion caseloads at public-sector health facilities.

As an example of the scale of the project the intervention in Rajasthan included:

In 2007 only two out of the nine rural hospitals were providing MTP services and none of the 50 PHCs in the district were offering safe abortion services.

Number of CAC service delivery sites increasing from two to 24.

More importantly, each block having at least one functional CAC service delivery site.

The improved access has resulted in a ten-fold increase in number of women availing CAC services at the primary level facilities.

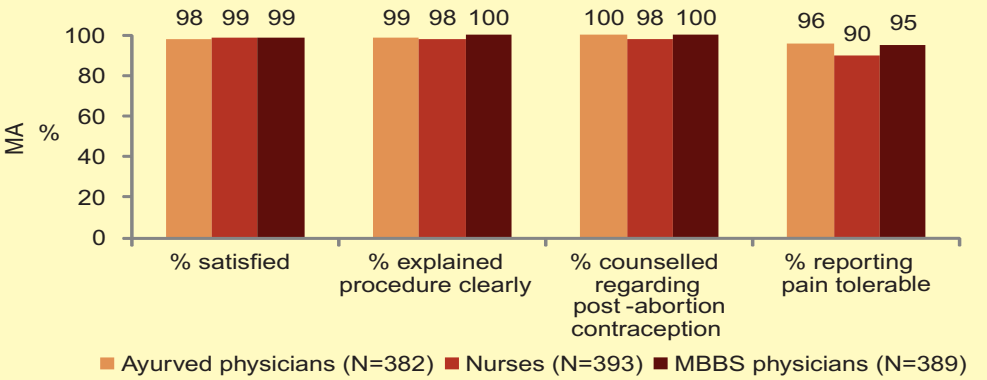
The community awareness regarding legality and availability has significantly increased and there has been a 5% increase in women seeking services at public facilities.

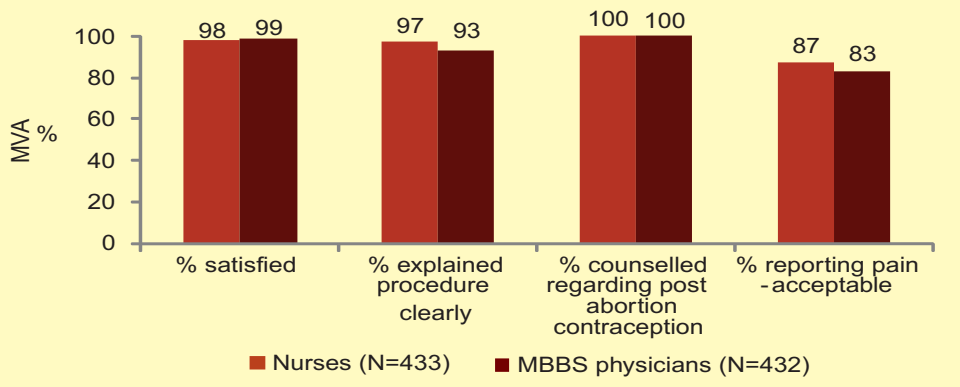
A study was conducted on Expanding the Medical Abortion (MA) provider base in India: Evidence of the feasibility of provision of MA by Ayurved physicians and Nurses. The principal investigators were Shireen Jejeebhoy, Shveta Kalyanwala, Jaydeep Tank, Shuchita Mundle. The study is complete and is to be published in International Perspectives on Sexual and Reproductive Health Contraception.

Acceptability of the MA/MVA Experience

Irrespective of provider type:

- **Overwhelming satisfaction with services received**
- **Provider had explained MA/MVA procedure clearly**
- **Post abortion contraception counseling was universal**
- **Side effects were found tolerable**
- **All women whose procedure had been conducted by an MLP would return to the same provider type if the need arose in future**





The other achievements of the project were:

- Conducting a situational analysis of the available resources for medical termination of pregnancy (MTP) in the states of Rajasthan and Maharashtra that highlighted poor reporting standards of MTP cases, mostly because government officials were not aware of the reporting requirements
- Advocating among the nursing cadre to keep abortion on their agenda, which was supported by the Federation of Obstetric and h Societies of India (FOGSI) issuing a statement supporting the role of midwives in abortion care
- Increasing awareness of the national MTP Act among district-level officials through advocacy workshops, which helped increase the number of sites approved to offer legal abortion services in the private sector in the two intervention states

The project made several recommendations key amongst which were

- Advocacy for expansion and adoption of the CAC model beyond Maharashtra and Rajasthan
- Research on selected topics, including community-level abortion stigma and CAC service provision by midlevel providers
- Institutionalization of safe abortion into NRHM with a focus on developing data collection mechanisms and integrating communication campaigns on safe abortion
- Special interventions to test innovations like behaviour change communication (BCC) campaigns to enable and support women to access safe services
- Advocacy to improve implementation of the MTP Act and distinguish between abortion and sex selection legislation
- Expanded partnerships to involve organizations that currently do not include safe abortions in their agenda

The FIGO Initiative:

The FIGO project has been rebranded as the FIGO initiative for prevention of unsafe abortion.

Dr. Jaydeep Tank has been the FOGSI representative to the project since its inception. The lead for the project at the FIGO board is Prof. Anibal Faundes from Brazil. The project has the mission to Coordinate activity and move it in an appropriate direction Communicate between the various stakeholders and ultimately build a sense of Community. Amongst its various and multilayered objectives are objectives like promoting a positive attitude toward unsafe abortion and awareness of legality & availability of safe abortion of the media, policymakers and general public, Promoting contraceptive usage in districts of with CPR below 30%, to update physicians and promote the newer methods of second trimester abortion and to consolidate achievements and facilitate access to safe and legal abortion.

"No woman can call herself free who does not own and control her body. No woman can call herself free until she can choose consciously whether she will or will not be a mother."

- Margaret Sanger

"All of women's aspirations, whether for education, work or any form of self-determination, ultimately rest on their ability to decide whether and when to bear children."

- Susan Faludi (Author of "Backlush")

"The states are not free, under the guise of protecting maternal health or potential life, to intimidate women into continuing pregnancies."

- Justice Harry A. Blackmun

"Abolition of a woman's right to abortion, when and if she wants it, amounts to compulsory maternity: a form of rape by the State."

- Edward Abbey

"If men could get pregnant, abortion would be a sacrament."

- Florynce R. Kennedy

"Maternal mortality and morbidity from unsafe abortion will never end until women live in a safe and respectful environment, free of laws that criminalize them for being women – because most women everywhere will resort to abortion in order to support their families, protect the children they already have, and save their own lives."

- Unknown

"You cannot have maternal health without reproductive health. And reproductive health includes contraception & family planning and access to legal, safe abortion."

- Hillary Clinton

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