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Postabortion Care:

Treating Complications and Providing Contraception

When she discovered that she was pregnant, 24-year-old Fatamatu felt she could not have another child so soon after the birth of her previous baby. "The baby is still too young. I have to support that child and my mother on my small income. My husband has moved to the Forest Region to live with his second wife." Fatamatu wanted to go to a hospital or a doctor but could not afford to do so. A friend told Fatamatu about a woman who performed abortions. This woman inserted a rubber catheter into Fatamatu's cervix and told her to go home. When she saw blood, Fatamata was to pull out the catheter and the products of conception would follow on their own.

Fatamatu began bleeding heavily and felt faint and feverish. She returned to the practitioner's home, who was away caring for a sick relative in a distant village. Fatamatu's friend took her to the city hospital. A physician found retained tissue in the uterus and some trauma to the cervix. That afternoon he performed a manual vacuum aspiration procedure and gave her antibiotics. Fatamatu remained in the hospital for a few hours. She was prescribed oral antibiotics and was advised to rest for one week. One of the nurses discussed contraceptive options with her. Fatamatu decided to use the hormonal injection that she could obtain at a family planning clinic near her home.[1]

Most family planning providers will at some time be faced with treating the potentially lethal complications of an unsafe abortion performed on a desperate woman. These complications represent some of the few emergencies encountered by family planning providers. The provider who manages this encounter well can save a life and enlist a woman in the regular use of effective contraception. No matter the provider's attitudes on abortion, these women need care, and they need it immediately.

Unsafe abortion is one of the five leading causes of maternal mortality worldwide.[4,8] Each year, between 30 and 40 million induced abortions are performed throughout the world, and as many as 200,000 women die following the procedure.[22] From 10% to more than 50% of maternal deaths in Africa have been attributed to complications from induced abortion.[15-17,22] Abortion is legally restricted in most African countries, but some countries, notably Zambia, Ghana, Botswana, and Tunisia, have a more liberal policy.

Even in countries where abortion is illegal, many clinicians feel morally obligated to treat women with abortion complications and provide them with postabortion family planning. The 1994 Conference on Population and Development in Cairo, Egypt, concluded that "in all cases women should have access to quality services for the management of complications arising from abortion. Post-abortion counseling, education, and family planning services should be offered promptly which will also help to avoid repeat abortions."

Women seek induced abortion for medical, economic, or personal reasons. Africa has exceptionally high rates of unplanned pregnancies because many women lack access to family planning services and because the prevalence of contraceptive use is low.[11] Induced abortion in Africa is most common among young, unmarried, and unemployed women who are of low parity or are childless.[1,11,18] Abortion also often occurs among women who have achieved their desired family size or simply cannot afford the economic burden of an additional child. In some cases, rape or medical reasons lead women to seek abortion. From 5% to 15% of all pregnancies end in spontaneous abortion (miscarriage);[20] the percentage may be even higher in areas where many women are undernourished or have generally poor health.

Most unsafe abortions in Africa are performed outside of a clinical setting, usually because legal abortion is not available, somewhat less often because there are not enough health practitioners trained in performing induced abortion or because their services are too expensive. Unsafe abortion is characterized by inadequate provider skills, hazardous techniques, and unsanitary facilities[21] in which the procedure becomes a serious threat to the health and well-being of the patient. The woman herself or a traditional practitioner may attempt to terminate the pregnancy by inserting foreign bodies or instruments through the cervix into the uterus or by the woman ingesting modern medicines or traditional herbs.[16]

POSTABORTION COMPLICATIONS

Many factors increase the risk of complications from abortion:

- Unhygienic techniques and practices used to initiate the abortion
- A long interval between initiating the abortion and receiving post-abortion care
- Limited provider skill
- Insufficient patient information
- Inadequate examination of tissue
- Poor or nonexistent aftercare
- The woman's poor health
- The abortion was performed late in the pregnancy
- Presence of gonorrhea or other pelvic infection

The signs and symptoms associated with complications from an unsafe abortion include vaginal bleeding, fever, septicemia, abdominal pain, cramping, foul-smelling vaginal discharge, and anemia.[8,13] Complications following abortion include retained pregnancy tissue, infection, bleeding, hemorrhage, septic shock, anemia, intra-abdominal injury (including uterine perforation), cervical or bowel damage, and toxic reactions to chemicals or drugs used to induce abortion. These

complications may lead to long-term medical problems such as chronic pelvic infection, which increases the risk of ectopic pregnancy and infertility.[19]

Some of the early signs of an ectopic pregnancy may be similar to the signs of abortion complications. A woman with an ectopic pregnancy may have pain, irregular bleeding, breast tenderness, nausea, or a recently delayed or skipped menstrual period.

Clinicians who treat abortion complications should be careful not to express disapproval or harsh judgment of the woman on the basis of her resorting to unsafe abortion, being sexually active, being young or unmarried, not using contraception, using contraception ineffectively, or not wanting to have the baby.

MANAGING INCOMPLETE ABORTION

Incomplete abortion occurs when a pregnant woman has begun to abort, either spontaneously or by induction, but has not yet expelled all the products of conception. There are several signs of retained tissue:

- Abdominal or pelvic pain
- Backache or cramps
- Heavy or persistent bleeding, with or without clots, that may lead to shock (rapid pulse, sweaty or clammy skin, fainting or lightheadedness)
- Enlarged, soft, tender uterus noted on pelvic exam
- Tissue visible at cervical os (opening)

Manual vacuum aspiration (MVA) is the treatment of choice for a nonseptic incomplete abortion where uterine size is equivalent to 12-week or less gestation.[9] Vacuum aspiration involves using a syringe directly connected to a cannula to empty the uterus. The World Health Organization (WHO) says that vacuum aspiration is an essential element of obstetric care at the first referral level.[9,21] Numerous studies have found MVA to be safer, more effective, and less expensive than sharp curettage (SC), which is still used in many parts of the

world.[6,8,14] MVA is less expensive than SC, as it usually does not require heavy sedation or an overnight hospital stay and, therefore, uses fewer hospital resources.[3,8] The Kenyatta National Hospital in Nairobi estimated a savings of US $300,000 during the first year it used MVA to manage incomplete abortions—hospital stays were shorter and there were fewer complications.[16]

MVA requires a hand-held vacuum syringe and flexible plastic cannula, which may be used as a combined sound and dilator. The syringe, which is portable, not electric, and either single- or double-valve, produces a vacuum as effective as that produced by an electric aspirator.[8] It can be used for endometrial biopsy, treatment of incomplete abortion, and first-trimester abortion or menstrual regulation. When an incomplete abortion is suspected, conduct a medical history, and perform both a general physical exam and a pelvic exam. Assess the uterine size by a bimanual exam and compare the actual size to that expected from menstrual dates. The uterus is likely to be smaller than would be expected because of the partial expulsion of products of conception.[9]

Prepare the patient before performing the procedure by following these steps: (1) have the patient empty her bladder, (2) place her in the lithotomy position, (3) allow sufficient time for any premedication to take effect, ensuring that supportive communication continues throughout the procedure, (4) drape the patient, and (5) prepare the vacuum in the syringe.

The following steps for treating incomplete abortion are taken from the International Population Assistance Services (IPAS) Manual Vacuum Aspiration Guide for Clinicians.[22]

1. Through a speculum inserted in the vagina, hold the cervix steady with a tenaculum and gently apply traction to straighten the cervical canal. Administer paracervical block, if needed.

2. Dilate the cervix (as required). Cervical dilation is necessary when the cervical canal will not allow passage of a cannula appropriate to the uterine size. When required, dilation should be done gently with mechanical dilators or with cannulae of progressively increasing size. Avoid causing trauma to the cervix or creating a false passage.

3. While holding the cervix steady, insert the cannula gently through the cervix into the uterine cavity just past the internal os. Rotating the cannula with gentle pressure often helps ease insertion.

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

5. Attach the prepared syringe (vacuum established) to the cannula, holding the end of the cannula in one hand and the syringe in the other. Make sure the cannula does not move forward into the uterus as you attach the syringe.

6. Release the pinch valve on the syringe to transfer the vacuum through the cannula to the uterus. Bloody tissue and bubbles should begin to flow through the cannula into the syringe.

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

8. Check for signs of completion. This procedure is usually quicker than dilation and curettage (D&C) and is complete when red or pink foam and no more tissue is seen in the cannula, a gritty sensation is felt as the cannula passes over the surface of the evacuated uterus, and the uterus contracts around (grips) the cannula. Withdraw the cannula and detach the syringe.

9. IPAS instruments are labeled for single use in the United States. However, reuse of syringes may be permitted in some situations. Since the syringe does not come in direct contact with the patient, decontamination and disinfection are sufficient. To decontaminate, remove the instruments from the patient while you are still wearing gloves. Draw the decontaminating solution (0.5% chlorine solution is recommended) through the cannula into the syringe and drop the soiled instruments into the chlorine solution. Allow the items to soak for at least 10 minutes. Then, disinfect with chemical disinfection soak (low to mid-level disinfection is adequate), following the disinfectant manufac-

turer's instructions. Do not try to disinfect the syringe with heat, because the valve assembly will crack.

Uterine evacuation is occasionally followed by an accumulation of blood clots in the uterus after surgery. This condition (postabortion syndrome, or hematometra) can develop rapidly, causing severe cramping pain that worsens within the first few hours after vacuum aspiration. Examination shows a large, tense uterus that is very tender with little or no bleeding at the cervix. In this situation, remove the retained tissue or blood clots with repeat vacuum aspiration or D&C. Consider giving methylergonovine (Ergometrine) or other oxytocics to help maintain firm uterine muscle tone and to expel any remaining tissue or clots.

MANAGING OTHER ABORTION COMPLICATIONS

INFECTION

Infection often develops with retained pregnancy tissue because the tissue is an ideal environment for bacterial growth. There are several signs of infection:

- Pain in the abdomen or pelvis
- Cramping or backache
- Fever and chills
- Foul-smelling vaginal discharge
- Tenderness of the uterus and adnexa

Teach patients to watch for these signs and to seek help immediately if any occur. Most often, signs of an infection appear 2 to 3 days after the abortion, but the infection can begin earlier or as much as several weeks later. If you suspect unsafe attempts to terminate the pregnancy or a long delay in seeking postabortion care, make a presumptive diagnosis of infection even in the absence of clinical signs. In these cases, begin antibiotic treatment immediately.

A patient needs urgent hospital care if she is severely ill, weak, has low blood pressure (shock), or has an infection that extends beyond the uterus to involve the fallopian tubes (parametritis or salpingitis) or

abdominal cavity (peritonitis). Evacuate the uterus of retained pregnancy tissue as soon as possible. Give the patient intravenous antibiotics and fluids immediately and continue until she improves (has no fever for at least 24 hours, for example) and is able to change to oral treatment. If a hospital is far away, give antibiotics intramuscularly or orally until the patient arrives at the hospital for intravenous administration.

If the infection is mild (involving only the uterus) and there is no evidence of tissue remaining in the uterus, hospitalization may not be necessary. Give the patient oral antibiotics and advise her to rest at home. If she has improved satisfactorily within 2 or 3 days (she has less pain, less uterine tenderness, and no fever), evacuation of the uterus may not be necessary. However, if her symptoms persist or worsen, or if her uterus is tender or enlarged, uterine evacuation may be needed to ensure that no tissue remains in the uterus.

BLEEDING

Some bleeding is to be expected after treatment of either a spontaneous or an induced abortion. Bleeding is often scant (or absent) for the first 24 to 36 hours, then increases somewhat as the uterine lining loses the hormonal support of pregnancy. Moderate bleeding, similar to a menstrual period, may continue intermittently for as long as 6 weeks.

Evaluate bleeding that is heavier than a normal menstrual period or that continues regularly for more than 3 or 4 weeks. Heavy bleeding may be caused by retained pregnancy tissue or by trauma to the cervix, vagina, or uterus from instruments or chemicals. Some anesthetics, such as halothane, may also cause immediate uterine hemorrhage because they interfere with normal uterine contraction. Prolonged bleeding may indicate retained pregnancy tissue.

Hemorrhage can also be caused by a disruption in the normal blood-clotting sequence. This problem (disseminated intravascular coagulopathy, or DIC) is rare but sometimes occurs when an abortion is missed or a dead fetus remains in the uterus for days or weeks before

spontaneous uterine contractions begin. DIC may occur with severe infection or may be triggered by an instillation of a hyperosmolar agent.

Initial treatment for hemorrhage, such as repairing a cervical tear or removing retained tissue, is often successful. If bleeding is very heavy or the patient shows signs of shock (rapid pulse, decreasing blood pressure, weakness, or faintness), begin massaging the uterus to maintain firm muscle tone. Administer oxytocics or ergometrine and ensure that arrangements are made for further care, such as intravenous fluids, blood transfusion, and surgery.

Damage to the Cervix, Uterus, or Viscera

Damage to the vagina, cervix, and uterus is a serious problem, especially after unsafe abortion or when abortion is self-induced. These injuries may be discovered only during the uterine evacuation. Uterine perforation and intra-abdominal injury, including damage to intestines, can result from an attempt to insert a foreign body (such as a stick) into the uterus. Damage to the cervix or uterus is much less common during the course of a vacuum aspiration abortion, but it can occur. More commonly, tears of the cervix are caused by the clamp (tenaculum) used to stabilize it during surgery. Vaginal injuries can also occur if caustic chemicals, such as harsh soap or potassium permanganate, are used.

A rapid pulse, weakness, faintness, or decreasing blood pressure may be a warning that serious internal bleeding is occurring, possibly as a result of damage to the large uterine blood vessels in the broad ligaments adjacent to the uterus. Pain, vomiting, abdominal tenderness or rigidity, and decreased bowel sounds may be signs of intestinal injury.

If you detect injuries, immediately discontinue the aspiration. Further management depends upon whether the aspiration is complete. If the uterus is perforated by a sharp instrument or by the vacuum curette, surgery may be required.

Toxic Reactions to Drugs or Chemicals

Women who have attempted to induce abortion using drugs and herbal preparations may show signs of poisoning, including kidney and liver damage. Collect and measure urine to check for kidney damage. Signs of liver damage include upper abdominal pain and jaundice. Clinicians also may suspect attempted abortion if the vagina shows ulceration or bleeding from caustic chemicals.

Some women who ingest ergonovine, chloroquine, or quinine to induce abortion end up taking toxic amounts. Ergonovine poisoning can cause vomiting, diarrhea, thirst, itching, numbness, and tingling of the extremities, and can lead to confusion, cold skin, a rapid weak pulse, unconsciousness, and even death (the lethal dose is 26 mg by mouth).[5] Chloroquine poisoning causes headache, disturbances in vision, gastrointestinal upset, itching, and, in some cases, rash. Toxic doses of quinine cause stomach pain, nausea, vomiting, diarrhea, ringing in the ears, dizziness, and vision disturbances. Severe central nervous system effects of quinine poisoning include headache, fever, confusion, delirium, faintness, depressed respiration, coma, and death (the lethal dose is 8 gm by mouth).[5] Aspirin is not an effective medication for abortion and can cause toxicity and hard-to-control bleeding.

POSTABORTION CONTRACEPTION

Induced abortion, whenever it occurs, indicates an unwanted pregnancy. This immediate postabortion period is an ideal time to discuss contraceptive options and to understand why the unwanted pregnancy occurred. Counseling can help the woman avoid repeating the experience of unwanted pregnancy and abortion. Tell the woman that ovulation will return soon after an abortion and that she can become pregnant again before her next menses. If she wants to become pregnant soon, provide information or referral for reproductivehealth services. If she does not want to become pregnant soon, educate her about all the contraceptive methods available and help her make an informed decision. Use the following guidelines:

1. If there are no complications after the abortion, recommend that the woman abstain from intercourse until the bleeding stops, then use any effective contraceptive method as soon as she resumes intercourse.

2. After a second-trimester abortion or if the genital tract has been traumatized or infected, the best contraceptive methods to recommend are oral contraceptives, injectables, and condoms and a spermicide. Hormonal implants can also be recommended, but they are not available in all parts of Africa. Female sterilization and an intrauterine device (IUD) are *not* recommended at this time. The diaphragm or the cervical cap should not be used until 6 weeks following the abortion or until any infection or trauma has healed.

3. If there has been hemorrhage that has led to severe anemia, the most appropriate contraceptive methods to recommend are oral contraceptives, condoms and spermicides, or a progestin-releasing IUD (if available). Female sterilization, inert or copper-bearing IUDs, implants, and injectables are *not* recommended until the severe anemia is resolved. However, temporary anemia related to blood loss usually subsides very quickly.

4. Although it is difficult to make a decision about long-term contraception in emergency settings,[2,12,20,21] this is an ideal time for patients to receive counseling and information about various methods. For couples who want no more children, the postabortion period may provide a convenient time for the male partner to proceed with sterilization. The woman can recover from her abortion at the same time her partner recovers from his vasectomy, after which the couple may resume intercourse.

5. In all cases, discuss the importance of condoms for protection from sexually transmitted infections (STIs), including the human immunodeficiency virus (HIV). Condoms should be readily available to all clients, regardless of the chosen birth control method.

WHAT CLINICIANS CAN DO

Clinicians who provide reproductive health care will almost surely be asked to evaluate or treat women who are having or have recently had an abortion, either spontaneous or induced. To reduce complications and mortality from abortion, clinicians are called upon to do the following:

1. Improve the availability of comprehensive, high-quality reproductive health care services, including contraceptive information and services. Effective contraception can prevent the occurrence of future abortions and their complications.

2. Provide supportive and nonjudgmental counseling about the pregnancy termination. Abortion can cause tremendous emotional and physical distress for women. They deserve to be treated with dignity and compassion.

3. Providers, particularly at the primary and first referral levels of care, must receive training in preventing maternal mortality and morbidity from abortion complications. Increase access to affordable and safe abortion services that use appropriate and simple technologies such as the MVA. Recognize and manage the medical complications of unsafe abortion so that problems can be identified and treated early.

4. Encourage active education and involvement of local women's groups in issues of reproductive health, including sexuality, fertility, contraception, STI prevention, and abortion.[7,9,16,23]

Danger Signs After Treatment of Abortion

Caution

- Fever
- Chills
- Muscle aches
- Tiredness
- Abdominal pain, cramping, or backache
- Tenderness in the abdomen in response to pressure
- Prolonged or heavy bleeding
- Foul-smelling vaginal discharge
- Delay (6 weeks or more) in resuming menstrual periods

If any of these signs are present, seek medical care.

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