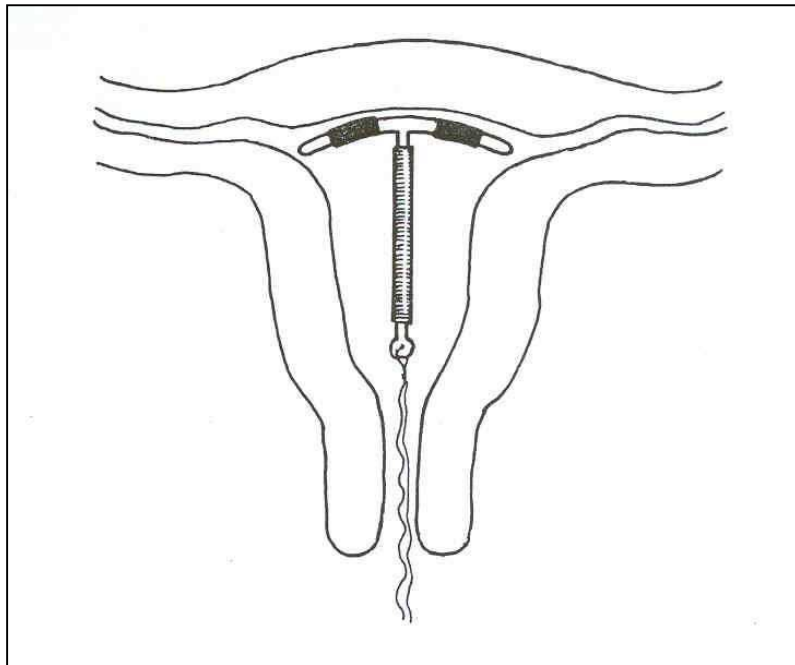


# **Guidelines for service providers on IUD insertion & removal**



**Family Health Bureau  
Ministry of Health  
SRI LANKA**

## 1. INTRODUCTION

Intra uterine contraceptive device (IUD) also called IUCD is the most commonly used reversible, long-acting contraceptive method in the world.

The first modern IUDs (the Lippes Loop and the Margulies Spiral) appeared in the early 1960s. They were made of polyethylene, a biologically inert plastic. In the late 1960s, researchers discovered that adding copper to a plastic IUD frame increased its effectiveness. The first copper IUDs, the Cu 7 and TCu-200 were smaller than all-plastic devices and caused fewer side effects, but they were just as effective in preventing pregnancy.

The newest copper IUDs are even more effective, longer-lasting, up to ten years for the Copper T 380A (TCu-380A), and have even fewer side effects. Now that these improved IUDs are widely available, it is important to identify prospective clients and provide quality counselling and clinical services in order to maximize safety, client acceptability and satisfaction.

### 1.1 TYPES OF IUDs

Although in the past, IUDs have been made in various shapes and of different materials, currently there are mainly two types of IUDs available worldwide:

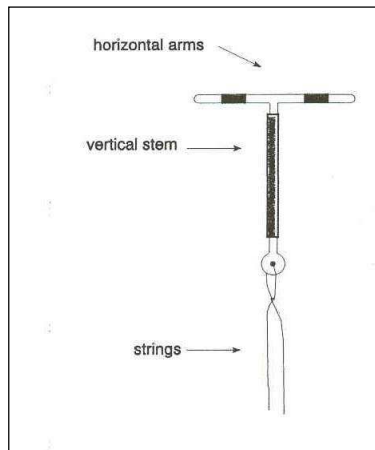
- Copper-bearing IUDs, which include the TCu-380A, TCu-200C, Multiload (MLCu 250 and 375) and the Nova T.
- IUDs with Progesterone such as 'Mirena' and the 'Levo Nova' which contain Levonorgestrel.

*The most commonly used IUD in Sri Lanka is the TCu-380A.*

## 1.2 Description of the TCu-380A

The Copper T-380A IUD looks like the letter “T”. It fits into the non pregnant uterine cavity and this design has proven to be highly effective, safe and acceptable (Figure 1-2). There are small copper bands on each arm of the IUD and the vertical stem of the T is wound with copper wire.

Figure 1-1 TCU-380A



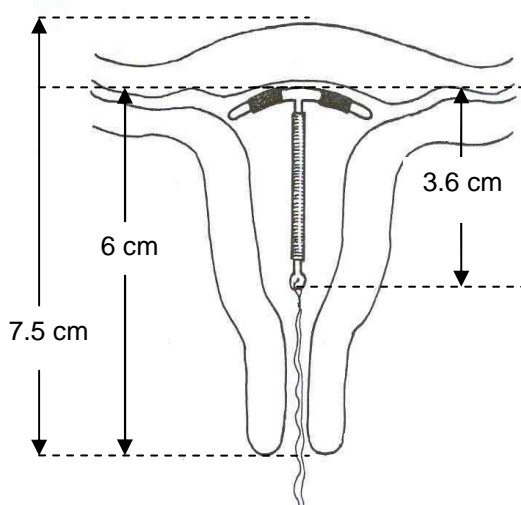
The dimensions of the Copper T-380A IUD is as follows;

- Length of the vertical stem is 3.6 cm
- Length of the horizontal arm is 3.2 cm
- Length of the strings might vary

Two factors that account for the greater effectiveness of the Copper T 380A are:

- The large surface area of copper (380 mm<sup>2</sup>)
- The copper collars mounted on the arms ensure that copper will be released high in the fundus of the uterine cavity.

Figure 1-2. TCU 380A inside the uterus



## 1.3 Mechanism of action

Although it is unlikely that a single mechanism of action accounts for the anti fertility effects of IUDs, their primary mode of action is *interference with fertilization* by causing a chemical change and damaging the sperm and ovum.

The copper releasing IUDs also *prevent implantation* by causing biochemical and histological changes in the endometrium.

#### **1.4 Effectiveness**

The Copper T-380A IUD has been proven to be effective for a period of 10 years after insertion. The failure rate is less than 1 pregnancy per 100 women over the first year of use.

#### **1.5 Shelf life**

IUDs are manufactured and supplied in sterile packages and the shelf life (i.e. date of manufacture to date of expiry) is usually 7 years. The expiry date is printed on the sterile package. IUDs with expired shelf life should not be inserted.

Sometimes the colour of the copper arms and stem of the TCu-380A IUD darkens before the expiry date. If the IUD package is unopened / not damaged and was stored in a proper manner, it is safe to use such IUDs as they are still sterile.

#### **1.6 Advantages**

- The IUD is a safe and highly effective method of contraception
- It provides long-term protection for up to ten years, therefore it can be used by those who do not like permanent methods.
- It is effective immediately after insertion and therefore a back up method is not required.
- It can be used by a woman of any reproductive age.
- It can be used by women in the peri-menopausal period and retained up to one year after menopause.
- It is suitable for breastfeeding women.
- It can be inserted 6 weeks after child birth /abortion (depending on the POA) provided there is no infection.
- It does not interfere with intercourse and may even increase sexual enjoyment by eliminating the fear of a pregnancy.
- The method is reversible, and there is no delay in return of fertility after removal.

- There are no harmful systemic effects.
- No interactions with any medicines.

### **1.7 Disadvantages**

- A trained service provider is needed for insertion and removal.
- Insertion and removal may cause slight discomfort. This may be alleviated by using an appropriate mild analgesic (e.g. Paracetamol).
- Some women may have lower abdominal discomfort and cramping after IUD insertion. They can get heavier menstruation and spotting between menstrual periods (these usually diminish by the third menstrual period).
- There is a small risk of perforation during insertion and therefore, service providers should adhere to proper insertion techniques.
- The IUD may be expelled partially or completely out of the uterus possibly without the woman's knowledge. To identify this strings of the IUD need to be checked regularly by the client which some may not like to do.
- It does not protect against sexually transmitted diseases including HIV/AIDS.
- There is a greater risk of pelvic infection (e.g. Pelvic Inflammatory Disease) in those with a recent history of sexually transmitted genital tract infections and those who have multiple sex partners.

## 2. COUNSELLING



Counselling is a crucial component of family planning services. It is an interactive process which is done in a systematic way to help someone to make a decision, through counselling providers help clients make informed choices of their reproductive options including pregnancy and family planning. Good counselling also helps clients select the appropriate family planning method voluntarily and use it longer and more effectively. Moreover clients who have made an informed choice of the method are more likely to be satisfied with it too.

Counselling is an ongoing process that should be integrated into all family planning services as a key responsibility of the staff involved. Good counselling principles and techniques should be applied to provide information in an interactive and culturally appropriate manner while ensuring privacy at all stages of contact with the clients. It is very important to include the husbands/partner in the counselling process so that the couple will be able to gather information, clarify doubts and make an informed choice together. Also this will make it a responsibility of the husband/partner as well to support the client if she is the acceptor of a contraceptive method and vice versa. Therefore, counselling should be tailored to suit the needs of each couple and should be made available at every contact point in the FP service delivery system (community level / hospital or field clinic).

Counselling in FP is sometimes a difficult and a time consuming task. To counsel potential clients confidently and effectively, the health workers must be properly trained with their communication skills developed and well informed with current knowledge on contraceptive methods. They also should make use of appropriate audio visual materials to enhance the counselling process.

Sometimes the need may arise to counsel family members who influence family planning decision making of the couple e.g. Mother- in-Law, grandmother etc.

Clients may already have certain amount of awareness and knowledge about FP methods from various sources for example from radio, television, internet, posters, leaflets, volunteers etc and this makes the counselling easy. Sometimes they may also have gathered misinformation (example that IUDs prevent pregnancy by causing abortion) and rumours (for example that IUD travels all over the body etc) and it is equally important to address these while counselling.

The initial counselling prior to a decision on IUD use is intended to familiarize the client with all contraceptive methods. This enables them to understand that there is a range of methods to select from based on their need. Information must be given in such a way to aid the clients choose but not persuade, press or induce them to use a particular method.

The following aspects should be covered with respect to each method and samples shown to the client and explained so as to guide them to take their decision.

**Box 2.1 Aspects to be covered in counselling**

1. What the method is
2. How it works
3. Safety
4. Effectiveness & duration
5. Contraindications
6. Side effects and complications
7. When to use
8. How to use
9. Who will provide the method
10. Where to obtain the method
11. When to return/follow up
12. How to stop the method
13. Reuse of the method
14. Return of fertility
15. Additional information relevant to each method (e.g. myths)

If the client/ couple decide to accept IUD as the method of choice, further counselling should be carried out with respect to details about the IUD.

## **2.1 Steps in counselling new clients**

Counselling clients should be done in an environment which ensures privacy and makes client feel free and comfortable to express their views, discuss sensitive matters and ask questions. In order to perform counselling effectively six major elements given below should be followed. For easy remembrance of the six elements the Mnemonic 'GATHER' is used. The time you devote for each of these steps depends on the client and your skills in counselling. It is important to note that although the steps have been given separately, in a practical counselling session steps will be mixed up as appropriate, For example while telling things you may also ask questions and explain.

### THE 'GATHER' STEPS

1. Greet
2. Ask
3. Tell
4. Help
5. Explain
6. Return of client

**G - Greet clients** in a friendly and respectful manner.

As they come to you, look at them, smile and make them feel accepted and comfortable. Address the clients by their names. If necessary introduce yourself and any other unfamiliar person in the place where you do the counselling. Give them full attention and do not engage in other activities while interacting with them (e.g. using the telephone).

**A - Ask clients about themselves.** Initiate discussion once the client feels comfortable and free to talk. Use a tone of voice that shows interest, concern and friendliness. Remember that listening well is as important as asking. Keep questions open simple and brief. Ask questions which are relevant and encourage clients to talk about their family planning and reproductive health



experiences, their present intentions and concerns. At this point you may try to get to know about rumours and any misinformation the clients have. Pay attention to their gestures and non verbal expressions. While asking questions allow them also to talk and express their views. When you ask sensitive questions always explain why you have to ask such questions. If clients are reluctant to answer certain questions you may have to get the required information in a different way. Make sure to ask questions from both partners.

**T - Tell and listen to clients.** Depending on the clients' needs, tell the clients what reproductive health choices are available to them to make a decision by themselves. The counsellors must take care not to bias the client with their personal views regarding practice of family planning or a particular contraceptive method. After counselling clients might make their choice among family planning methods or perhaps end up using no method at all if they decide to go for a pregnancy and this should be considered as a positive outcome of the counselling process. Care should be taken to tell about all the available contraceptive options appropriate to the client's need. Focus on methods that most interest the client, but also tell other available methods. It is important to use audio visual aid where appropriate. Give a sample of the IUD and get them to understand the size and how the device and the threads feel to the hand.

It is important to give information on STIs, including HIV/AIDS, to all family planning clients. With sensitivity, family planning providers can help clients understand and measure their risk of getting STIs. Always make it a point to use this opportunity to tell and discuss about STI and HIV/AIDS and their prevention and the fact that the only contraceptive method which can give dual protection is the condom.

All family planning clients should know how to use a condom irrespective of the family planning method they use. Counsellors /Providers can explain the *ABCs of safe behaviour: **A**bstinence, **B**eing mutually faithful, **C**ondom use.*

Also tell the client about any other available services that the client may want (e.g. Well women clinic services)

**H - Help clients make an informed choice.** Help the client think about what course of action best suits his or her situation and plans. Encourage the client to express opinion and ask questions. Also, ask if the client's husband or sex partner (if not available at the time of counselling) will support the client's decisions. Always try to discuss choices with both partners. In the end, make sure that the client has made a clear decision. The provider can ask, "Now tell me what you have decided to do" or perhaps, "Have you been able to decide on a particular method now?" If they have not decided you must give them time while explaining to them that there is a chance to conceive if they have unprotected sex till a decision is taken.

**E - Explain fully how to use the chosen method.** After a client chooses a family planning method, give her or him the supplies, if appropriate. Explain how the supplies are used or how the procedure will be performed. Explain how the IUD is placed inside the uterine cavity using the model and how to wear the condom using the penis model 'dildo'. At every step you need to explain to the client why that step is important. Encourage questions, and answer them openly and fully. Ensure that clients understood how to use their method by asking them to explain back to you what you have told.

*(Explain to all the clients about dual protection and provide condoms to anyone at risk of sexually transmitted infections (STIs), and encourage him or her to use condoms along with any other family planning method)*

**R - Return visits should be welcomed.** Return visits by clients are due to several reasons. For routine follow up, present problems, clarify doubts, discontinue the method are some of these reasons. Inform the client when to come for follow up, in particular for IUD acceptors. Explain why follow up visits are important. Also, always invite the client to come back any time for any reason of concern to the client or partner. Clients must be welcomed and their needs fulfilled at every return/ follow-up visit. This is important for continuation

of the method by reassuring the client and the spouse/partner that they are doing well with the method.

### **Box 2.2 Tips on good counselling**

- Listen effectively
- Answer questions objectively and clearly in simple language
- Reinforce important information on side effects, danger signs etc
- Let the client make his/ her own decision

## **2.2 Counselling at the time of service provision**

It is a responsibility on the part of the service provider to ensure that the client has made a well informed choice and has no doubts regarding the decision made. Client should be reassured and any concerns the client may have at this moment should be asked and addressed before IUD insertion. Ensure privacy and the fact that you will be gentle in the procedure. This will alleviate fear and help the service provider to get the client's cooperation during the procedure.

## **2.3 Post insertion counselling**

Counselling after provision of the method is essential for all contraceptives. It allows the provider to reinforce instructions the client should follow after provision of the method. In the case of IUD, instructions should be given clearly after insertion, even though some elements of such counselling have been given earlier. Post insertion counselling should focus on the need for follow up and on warning signs for a quick return to the clinic /contact field healthcare worker if problems occur.

## **2.4 When to return**

Clients should be told when to return to the clinic for routine follow up. In the case of IUD, the 1<sup>st</sup> follow up visit should be arranged approximately 4 weeks after insertion. Clients should not be asked to make unnecessary visits. Still, the provider should make clear that the client is *always welcome back any*

*time for any reason*—for example, if she develops side effects or wants to stop using an IUD, wishes to use another method.

## **2.5 Follow-up counselling**

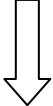
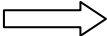


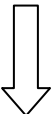
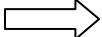
Follow up counselling should reassure the clients using IUDs. It has to be remembered that every client who comes for follow up should be asked about their complaints and examined (including per vaginal examination) before counselling. Follow up records should be maintained. Reinforce post insertion instructions and explain what to do in case they decide to stop the method. It is ideal if the spouse/partner also can be present, at the follow up sessions too. Discuss and plan future follow up as required. At all the follow up counselling sessions ensure that all the doubts of the client/spouse are clarified.

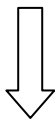
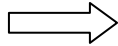

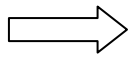
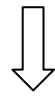
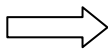
### 3. MEDICAL ELIGIBILITY CHECKLIST FOR IUD USERS

This list below checks whether the client has any known medical conditions that prevent use of an IUD (This checklist is not meant to replace counselling).

If she answers 'No' to ALL of the questions, then she is a suitable client to use an IUD (see Annex 10).

If she answers YES to a question, follow the arrow for instructions.

1. Did you give birth (live or still birth) less than 4 weeks ago?		
<input type="checkbox"/> No 	<input type="checkbox"/> Yes 	<p>&gt; <b>Do not insert IUD</b></p> <p>&gt; Delay inserting an IUD until 6 weeks after child birth</p> <p>(Give her a date to come back to the clinic and follow-up)</p>
2. Do you have an infection following childbirth (during first 6 weeks), abortion or pelvic inflammatory disease (PID) within last 3 months?		
<input type="checkbox"/> No 	<input type="checkbox"/> Yes 	<p>&gt; <b>Do not insert IUD</b></p> <p>&gt; Refer for care as appropriate</p> <p>&gt; Discuss other contraceptive options</p> <p>&gt; re- evaluate for IUD use after treatment</p>
3. Do you have vaginal bleeding that is unusual for you?		
<input type="checkbox"/> No 	<input type="checkbox"/> Yes 	<p>&gt; <b>Do not insert IUD</b></p> <p>&gt; Refer to a specialist</p> <p>&gt; Help her choose a method to use while being evaluated such as COC or condoms</p> <p>&gt; after treatment re-evaluate for IUD use</p>

4. Have you had any diagnosis of cancer female genital organs, pelvic tuberculosis or uterine abnormalities such as fibroids?		
<input type="checkbox"/> No 	<input type="checkbox"/> Yes 	<p>&gt; <b>Do not insert IUD</b></p> <p>&gt; Refer to a specialist</p> <p>&gt; Help her choose a method to use while being evaluated (COC, DMPA, Implants or condoms)</p> <p>&gt; in case of pelvic tuberculosis after treatment re-evaluate for IUD use</p>
5. Assess whether she is at very high risk for gonorrhoea or Chlamydia?		
<input type="checkbox"/> No 	<input type="checkbox"/> Yes 	<p>&gt; <b>Do not insert IUD.</b></p> <p>&gt; Urge her to use condoms for STD protection.</p> <p>&gt; Refer or treat client and partner(s).</p>
6. Assess whether the client might be pregnant?		
<input type="checkbox"/> No 	<input type="checkbox"/> Yes 	<p>&gt; <b>Do not insert IUD.</b></p>

### Contraindications for IUD insertions

1. Less than 4 weeks postpartum
2. Puerperal and post abortion sepsis within the last 3 months
3. Cervical and endometrial cancer, Pelvic TB
4. Unexplained vaginal bleeding
5. Current pelvic inflammatory disease (PID)
6. Cervicitis (e.g. Gonorrhoea, Chlamydia infection) or risk of cervicitis
7. Anatomical abnormalities such as distorted uterine cavity
8. Benign and malignant trophoblast disease
9. Pregnancy

*N.B. Although nulliparity is not an absolute contraindication, the risk of expulsion of an inserted IUD is high. Therefore, IUD insertion to a nulliparous woman is best avoided.*

## 4. BASIC STEPS OF IUD INSERTION & REMOVAL

The following standardised procedure should be adopted in the insertion of an IUD in a suitable client to ensure minimal complications and discomfort.

### Box 4-1. Steps of insertion

1. Educate client
2. Clinical examination
3. Loading of IUD
4. Inserting speculum
5. Sounding of uterus
6. Insertion of IUD
7. Observation & instructions
8. Follow up
9. Decontamination & disinfection of instruments

### 4.1 Educate the client about the procedure and allay anxiety

- Explain the insertion procedure
- Answer questions
- Talk about possible discomfort and the fact that you will be gentle.
- Request the client to empty the bladder before the insertion procedure

### 4.2 Clinical examination to exclude contraindications and establish the position, size and mobility of the uterus

- General examination
- Abdominal examination
- Pelvic examination

#### a) General examination

##### Examine for anaemia

If severe anaemia is suspected, and haemoglobin (Hb) level is not available, check for:

- Pallor of skin or eyes (conjunctiva)
- Rapid pulse (> 100)

☞ If present, do not proceed with the IUD insertion. Explain to client why the IUD cannot be inserted and discuss an alternate form of contraception.

## b) Abdominal examination

### Check for

- A possible enlarged uterus
  - Supra pubic or pelvic tenderness
  - Lumps, masses or gross abnormalities
  - Scars
- ☞ If present, investigate further before proceeding with the insertion.

**Figure 4-1 Instruments required for IUD insertion**



## c) Pelvic examination

- I. Ensure that the bladder is empty.
  - II. Drape client appropriately and position her in the dorsal or lithotomy position.
  - III. Wash hands thoroughly with soap and dry with clean dry cloth or air dry.
  - IV. Use High Level Disinfected (HLD) or sterilised gloves on both hands (See Annex 1 & 2 for steps of putting on & removing surgical gloves).
  - V. Arrange instruments and supplies on HLD or sterile tray (Figure 4-1).
  - VI. Ensure adequate illumination.
- ☞ Inspect external genitalia for ulcers, sores, warts and lumps. Check for vaginal discharge and other signs of lower genital tract infections (GTIs) – If any of the above are present do not proceed with the insertion and discuss alternate form of contraception and refer patient to a specialist.



## Perform bimanual examination

Clean vulva from top to bottom and from inside to outside, with cotton swabs soaked in freshly prepared Savlon or sterile water.

### Check for:

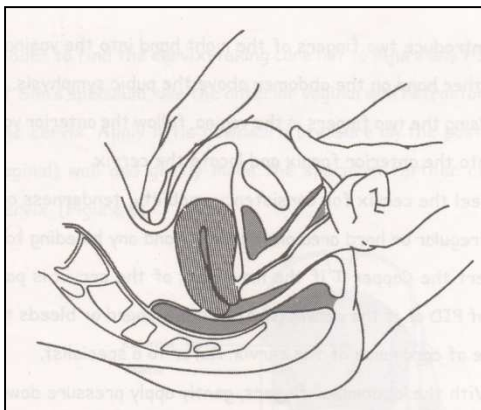
- I. Evidence of pregnancy- Soft cervix, enlarged uterus
- II. Evidence of infection- tenderness in the fornices.
- III. Evidence of pelvic masses, anatomical abnormalities, adnexal masses, mobility of uterus and enlarged and/or irregular uterus.

## How to determine the position of the uterus?

Is it anteverted/ retroverted /or in mid position?

First clue on the position of the uterus is the direction of the cervix.

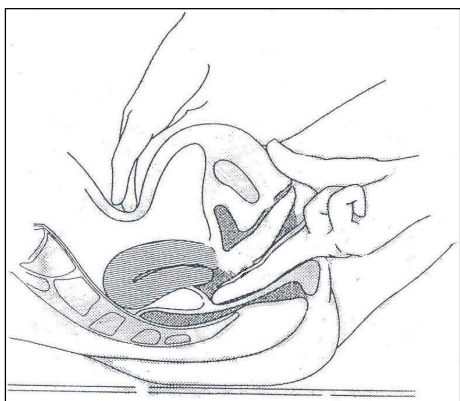
**Figure 4-2. Anteverted uterus on palpation**



**Anteverted** – This is the commonest position. Cervix and the os direct downwards (Figure 4-2). If the uterus is anteverted, the finger in the vagina can touch the anterior lip prominently and on bimanual examination the fundus is felt as a globular mass between your hand on the abdomen and the finger in the anterior

vaginal fornix. It is important to press the hand on the abdomen towards the pelvis in order to palpate the uterus.

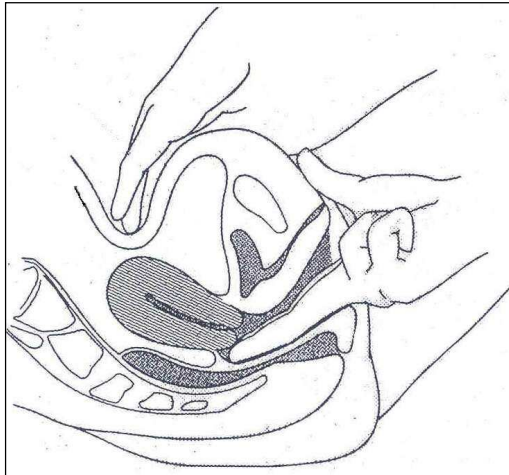
**Figure 4-3. Retroverted uterus on palpation**



**Retroverted** – Cervix and the os directs relatively upwards (Figure 4-3). In retroverted position, the finger in the vagina can touch the posterior lip prominently and the finger in the anterior fornix and the hand in the abdomen can be brought close to

each other as there is no intervening uterus. When the finger is moved to the posterior fornix the continuation of the uterine body is felt posteriorly.

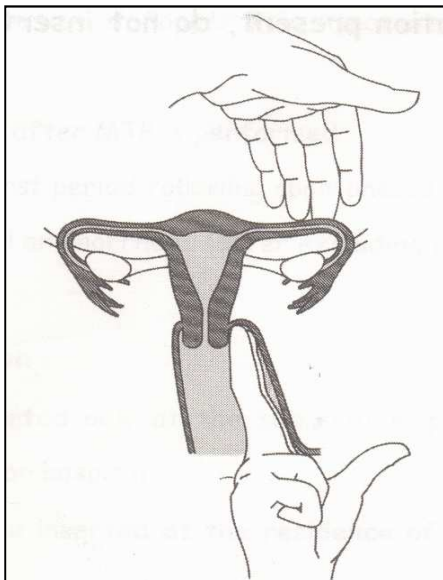
**Figure 4-4. Mid position uterus on palpation**



**Mid position** – Cervix and the os directs along the line of the vagina (Figure 4-4). When the uterus is in mid position the fundus cannot be felt in either of the fornices and the continuation of the body of the uterus is not felt posteriorly.

In a very obese client you may not be able to feel the uterus bimanually specially if retroverted. The only guide to the position of the uterus will be the direction of the cervix.

**Figure 4-5. Palpation of the adnexa**



**Palpation for adnexal masses:** Insert the fingers in to each lateral fornix and press on the corresponding iliac fossa to exclude adnexal masses or tenderness (Figure 4-5). Except in a very thin client the ovary is not felt. If there is any tenderness or mass in the adnexa refer to a specialist.

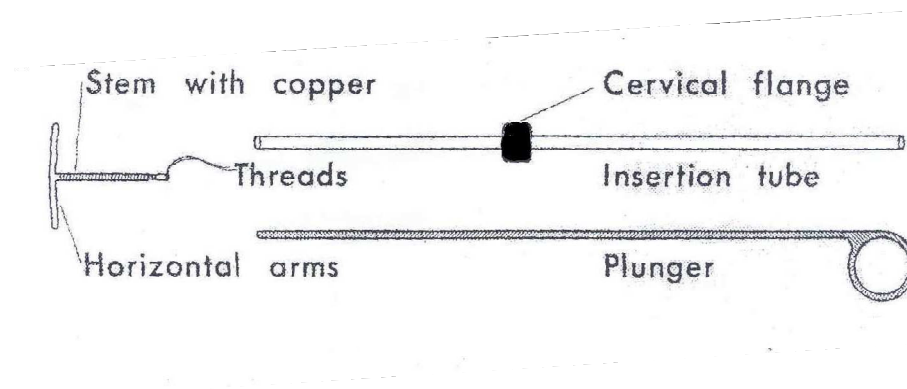
The above clinical examination should confirm the suitability of the uterus for the IUD insertion.

If the history and physical findings warrant further investigation, and facilities are available, the following simple laboratory tests should be done.

- a) Haemoglobin (Hb) for those clients who appear to be severely anaemic.
- b) Urine pregnancy test – If the examination is indicative of a possible pregnancy.

### 4.3 Loading of Copper T 380 A

Figure 4-6. Components of an IUD package



#### **Do not**

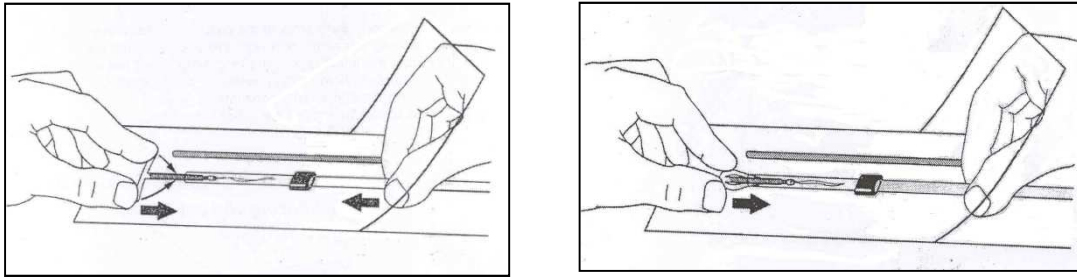
- Open sterile package until final decision to insert an IUD is taken
- Keep the arms of the “T” more than 5 minutes inside insertion tube before IUD is inserted as it may not come back to the original ‘T’ position

IUD can be loaded while in the packet using bare hands or by taking it out of the packet using hands with sterile gloves.

Loading IUD with bare hands

- a) Keep the package on a clean, hard, flat surface.
- b) Open the package at the end farthest from the IUD.
- c) Place your thumb and index finger over the ends of the horizontal arms of the “T” and hold the “T” in place.
- d) Hold the inserter tube with your other hand.
- e) Bend the arms of the “T” towards the inserter tube and gently enter the bent edges into the inserter tube (Figure 4-7).
- f) Push the handle of the plunger so that the end of the plunger touches the end of the vertical arm of the “T”.

**Figure 4-7. Loading an IUD**



Loading IUD with gloved hands

- a) Open the package completely.
- b) Wear sterilised or HLD gloves on both hands. Follow steps 3-6 as above.

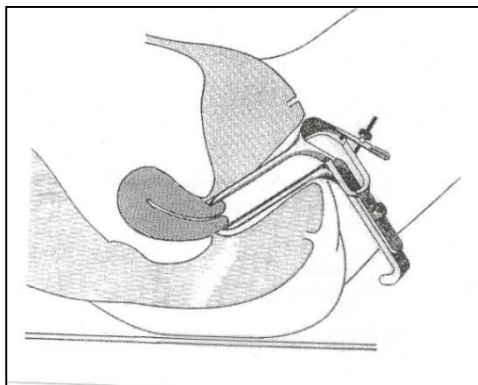
#### **4.4 Inserting speculum**

Insertion of speculum should be a gentle procedure.

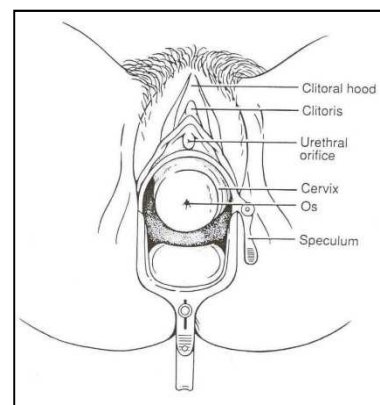
- a) Tell the client what you are going to do. Be gentle.
- b) Use sterile water to lubricate the speculum.
- c) Arrange the controlling arms of the Casco's bi-valve speculum so that it could be opened and kept unsupported inside vagina.
- d) Enter the introitus with the long diameter of the elliptical body of the speculum placed vertically and rotate the speculum to the horizontal position while inserting. An alternate method is to open the labia with the left hand and to introduce the speculum with its jaws held horizontally (since the vagina has anterior and posterior walls only). No rotation is involved in this method.
- e) Position the speculum to obtain a good view of the cervix (Figure 4-8b).

**Figure 4-8.**

##### **a) Insertion of the speculum**



##### **b) Visualising the cervix**



Use adequate illumination (spot lamp or torch) to inspect for abnormalities, discharge, polyps and growths.

- ☞ If present, do not proceed with insertion. Discuss alternate form of contraception and refer patient to a specialist.

#### 4.5 Sounding of uterus

- Clean the cervix with small sterile gauze using povidone iodine or sterile water (Figure 4-9). Do not use cotton wool.
- To stabilize the cervix, apply the vulsellum forceps on the anterior lip of the cervix, slowly closing the jaws of the forceps only to the first notch to minimise discomfort (Figure 4-10).

Figure 4-9. Swabbing the cervix

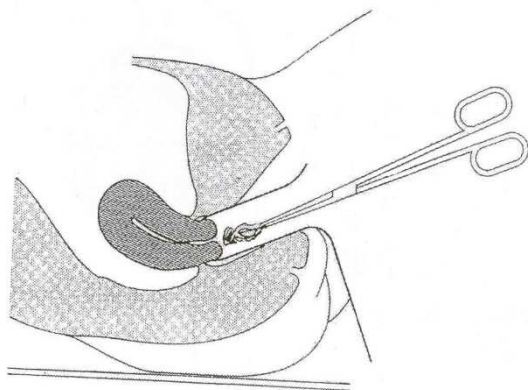
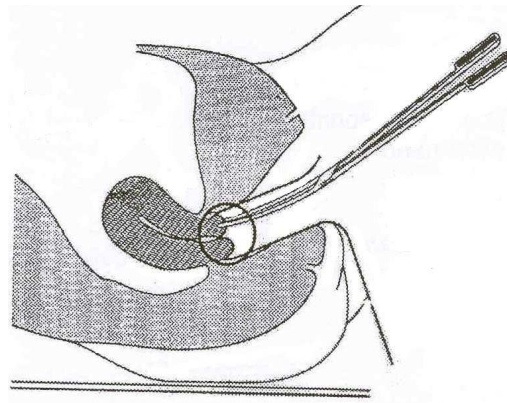
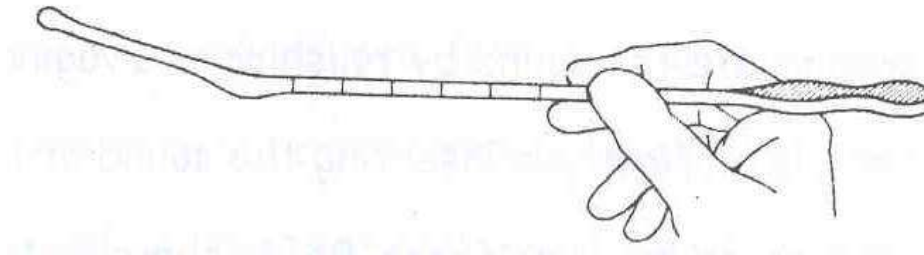


Figure 4-10. Applying the vulsellum



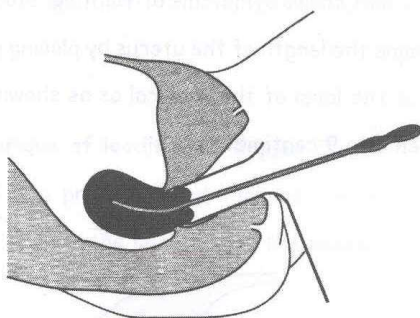
- Hold the vulsellum forceps with one hand and select the sterile uterine sound with the other hand.
- Holding the uterine sound with the index finger and thumb gently pass the sound through the cervix without touching sidewalls of vagina or speculum blades (Figure 4-11).

**Figure 4-11. Holding the uterine sound**

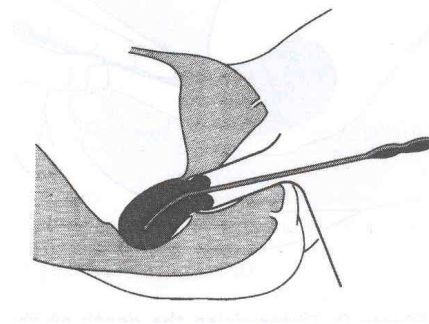


e) Use the knowledge on the position of the uterus, you acquired while doing bi-manual examination to decide in which way the sound should be inserted. If the uterus is anteverted, the sound should be inserted with the curve upwards and if the uterus is retroverted, the sound should be inserted with the curve downwards (Figures 4-12 & 4-13).

**Figure 4-12. Sounding an anteverted uterus**



**Figure 4-13. Sounding a retroverted uterus**

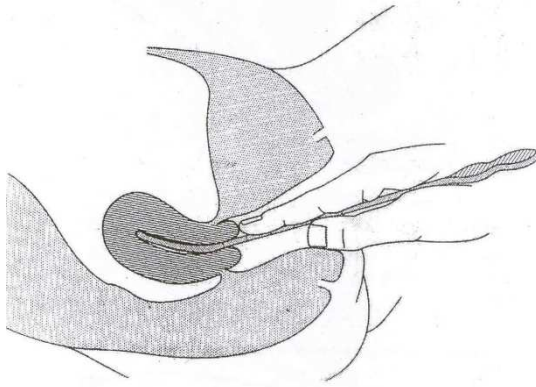


f) If there is resistance to passing of the sound, gently apply counter traction on the vulsellum to align the uterine cavity, cervical canal with the vaginal canal. Then insert the sound till you feel a resistance.

**Do not try to lead the sound but allow the sound to lead you**



**Figure 4-14. Determining depth of uterine cavity**



g) Next remove sound. Note the depth of the uterine canal either by examining the level of blood or mucous coating the sound or by marking the depth by placing the index finger on the sound at the external os. (Figure 4-14).

h) Sounding will enable to:

- I. Confirm position of uterus
- II. Depth of uterine cavity. (The distance between external cervical os and uterine fundus is about 6-8 cm).

**☞ Important to remember**

- I. If sound shows resistance due to a narrow cervix, do not use force or persist. Refer to a specialist.
- II. Vaso-vagal attacks could occur.
- III. Incorrect and forceful sounding can result in perforations.

Increased depths (>8cm) of the uterine cavity may be due to:

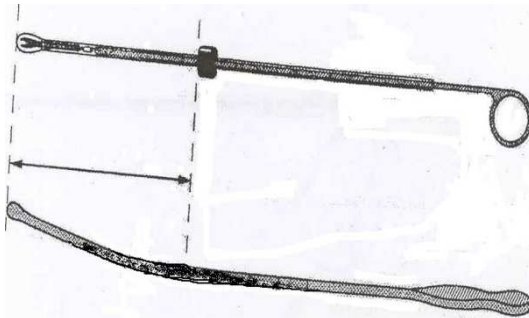
- Perforation- (Admit client to hospital for monitoring and management)
- Pregnancy } (Send for further investigation)
- Fibroid }

#### **4.6 Insertion of the IUD**

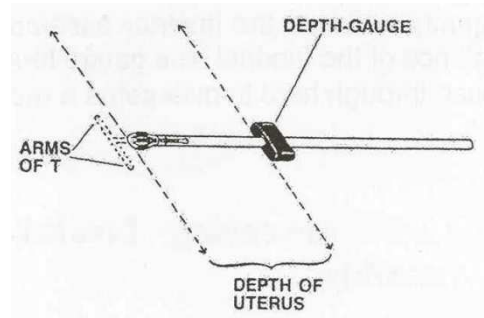
a) First step it to set the depth-gauge to the level of the depth of the uterus, using the measurement obtained by sounding (Figure 4-15).

b) Set the long axis of the depth gauge and the horizontal arms of the “T” in the same plane (Figure 4-16).

**Figure 4-15. Setting the depth gauge**



**Figure 4-16. Setting the plane of the depth gauge**



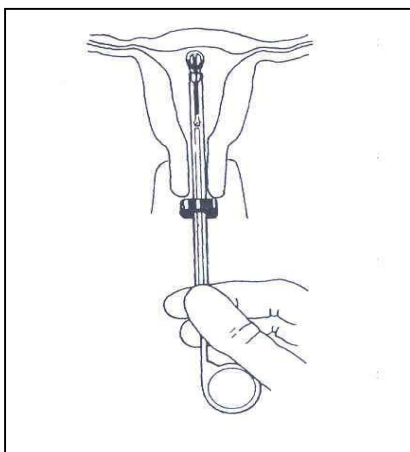
c) Grasp the vulsellum forceps and pull gently.

d) Hold the loaded inserter assembly with index finger and thumb and carefully insert it through the cervical os keeping the blue depth gauge in a horizontal place.

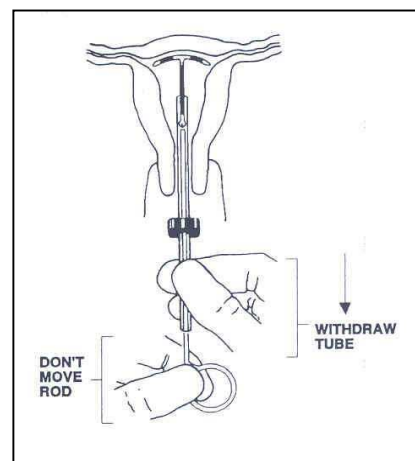
e) Gently advance the inserter assembly until blue gauge touches the cervix or until resistance felt. Never push too hard to overcome a resistance (Figure 4-17).

f) Hold the vulsellum and handle of the plunger in one hand and with the other hand gently (withdraw) the inserter tube towards you ('Pulling technique' – Figure 4-18). This will release the arms of the IUD in the fundal area of the uterine cavity.

**Figure 4-17. Advancing the loaded inserter assembly**



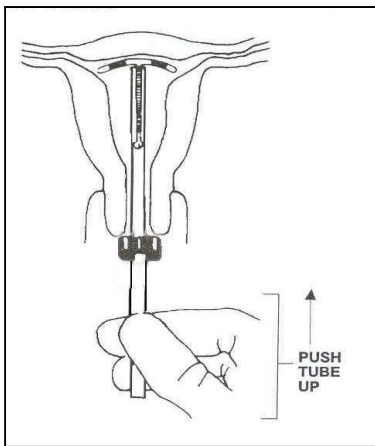
**Figure 4-18. Withdrawing inserter tube to release IUD arms**



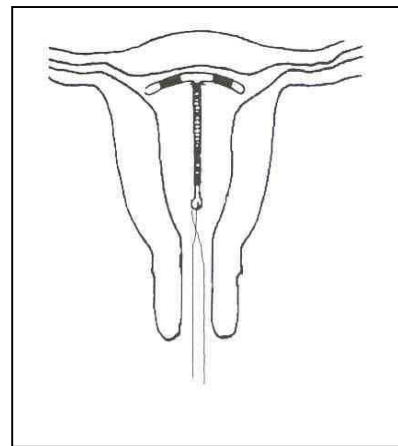


- g) Now hold the inserter tube stationary and remove the plunger completely.
- h) Then carefully push the inserter tube upward towards the top of the uterus until you feel a slight resistance to ensure that arms of the “T” are high as possible in the uterus (Figure 4-19).

**Figure 4-19. Positioning IUD high in the uterus**



**Figure 4-20. IUD fully inserted in uterus**



- i) Gently withdraw the inserter tube. Ensure that any plastic part of the IUD is not visible in the external cervical os. If so, remove IUD and insert a new one.
- j) Carefully hold the strings with an artery forceps (do not pull) and cut the strings leaving 3-4 cm in length from the external cervical os.
- k) Remove the vulsellum forceps.
- l) Check for bleeding from cervix and if present press a sterile swab to the site until bleeding stops.
- m) Gently remove the speculum.
- n) Tell the client that you have successfully inserted the IUD.
- o) Assist the client from the table slowly. Ensure that she has no pain or dizziness.

#### **4.7 Observation and instructions to client**

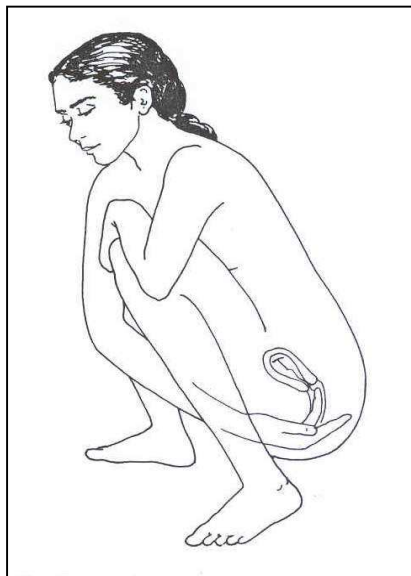
1. Teach client how to check for strings -see instructions below.
2. Inform her that she is now protected and that she may have sexual intercourse.

3. Educate her on possible side effects, complications and when to return to the clinic for follow up (usually 4-6 weeks post insertion).
4. Complete the following records – (see Annex 3-5)
  - ☞ Family Planning Clinic Record- (RH MIS 1153)
  - ☞ Family Planning Client Record- (RH MIS 1155)
  - ☞ Family Planning Monthly Return for New Acceptors- (H 1200)
5. Ensure that client waits 15-30 minutes in the clinic before she leaves.

N.B. The IUD is most likely to come out during the first few months after IUD insertion, during monthly bleeding, among women who have had an IUD inserted soon after childbirth, a second-trimester abortion, or miscarriage, and among women who have never been pregnant.

A woman can check her IUD strings if she wants reassurance that it is still in place. Or, if she does not want to check her strings, she can watch carefully in the first month or so and during monthly bleeding to see if the IUD has come out-(Source IPPF)

**Figure 4-21. Checking IUD Strings**



#### 4.8 Instructions to check strings

- a) Wash hands
- b) Sit in a squatting position, or stand with one foot up on a step or ledge.
- c) Gently insert second or middle finger into the vagina to find the cervix (It feels firm, like the tip of your nose)
- d) Feel for the strings, but do not pull the strings (Figure 4-21) - pulling the strings might move the IUD or cause it to come out.

Check the strings after every menstrual period.

***Return to the clinic as soon as possible for a check-up if;***

- You feel the hard part of the IUD in your vagina or at your cervix.
- Period late (pregnancy), abnormal spotting or bleeding
- You do not feel the strings
- Abdominal pain, pain with intercourse
- Abnormal vaginal discharge

#### **4.9 Decontamination and disinfection of instruments and reusable gloves**

- a) Place used instruments in 0.5% chlorine solution for 10 minutes for decontamination prior to cleaning and disinfecting.
- b) Wipe contaminated surfaces with 0.5% chlorine solution before removing gloves.
- c) Dispose waste material (gauze swabs, gloves).
- d) If reusing surgical gloves immerse both gloved hands in 0.5% chlorine solution, then remove by inverting and place gloves in chlorine solution. Soak for 10 minutes (see Annex 2 for steps removing surgical gloves).
- e) Wash, clean and rinse instruments and gloves, and disinfect by sterilisation or High Level Disinfection (HLD)-See Annex 6.
- f) Wash hands thoroughly, with soap and water.

#### **4.10 Follow up**

##### **a.) In the clinic-**

**After 6 wks** of insertion- Do a per vaginal examination to ensure that the IUD is in situ. Reassure the client.

**After one year** of insertion- Do a per vaginal examination to ensure that the IUD is in situ. Reassure the client.

##### **b.) In the field-**

The PHM will visit the client once a month for three months and thereafter once in 6 months. A FP field record H-1154 should be maintained for each client. The client may be referred or visit the clinic anytime if there are problems.

#### **4.11 Removal of the IUD**

##### **Indications for removal**

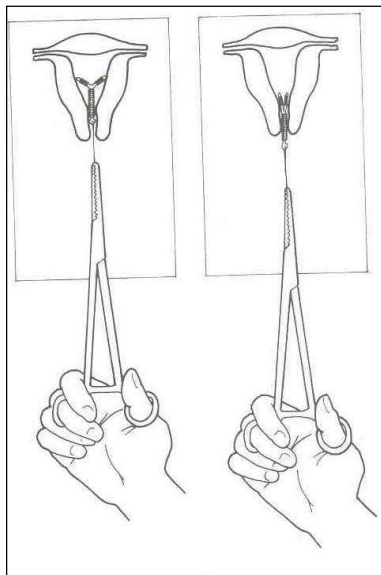
- a) Client wishes the IUD to be removed or any other valid reason
- b) Want of a child
- c) Excessive bleeding

- d) Partial expulsion
- e) Any complication caused by the IUD

### Procedure for removal of an IUD

- a) Discuss reasons for removal. The IUD is best removed at the time of menstruation. For any reason if the IUD is removed mid cycle the client has to be cautioned about the possibility of becoming pregnant.
- b) Tell client what you are going to do.

**Figure 4-22. Removal of IUD**



- c) Assemble instruments as for insertion.
- d) Do a bimanual examination.
- e) Swab vulva with sterile water.
- f) Insert a speculum (as described above) to visualise the cervix and IUD strings.
- g) Apply povidone iodine or sterile water to the cervix.
- h) Tell the client that you are now going to remove IUD and ask her to take slow deep breaths and relax.
- i) Grasp the strings close to the cervix with artery forceps and pull slowly and firmly

until completely out. The device can usually be removed without difficulty (Figure 4-22). If the strings break off, but the device is still visible, grasp the device with the forceps and remove it.

- j) Show IUD to the client.
- k) Inform client that she is no more protected and discuss her contraceptive requirements.
- l) Re-insert a new IUD if client wishes and conditions are appropriate.

☞ If strings are not seen or there is difficulty in removing IUD – refer to a specialist for removal.

## 5. MANAGEMENT OF SIDE EFFECTS AND POSSIBLE COMPLICATIONS

Most side effects and other problems associated with the use of IUDs are not serious. Long term success, as defined by satisfied clients and high continuation rates, will occur only if clinic staff recognises the importance of providing follow up care and prompt management of side effects.

Included in this section is a Complaint, Assessment and Management matrix, which outline the steps in evaluating and managing most of the commonly encountered side effects, possible complications and other problems.

**Table 5.1 – Management of side effects, possible complications and other problems**

Complaint or problem	Assessment	Management
<p>1. Syncope, bradycardia, vaso-vagal episode</p> <p><b>(During IUD insertion or removal)</b></p>	<p>I. Is client anxious?</p> <p>II. Does she have a small uterus or a cervical stenosis?</p> <p>(These characteristics increase risk for syncope and/or Vaso-vagal reaction)</p>	<p>VERY IMPORTANT</p> <p>Every step of IUD insertion and removal should be carried out carefully and gently.</p> <p>Maintain a calm, relaxed unhurried atmosphere with a gently reassuring approach to the client.</p> <p>MANAGEMENT</p> <p>At the earliest sign of fainting, stop the insertion and remove IUD.</p> <p>Keep the client supine, the head lowered and legs elevated to ensure adequate blood flow.</p> <p>Maintain a clear airway by supporting the chin. (Do not hyperextend the neck). Loosen any tight clothing, especially around the neck.</p> <p>Avoid over treatment; observation and support are usually all that is required.</p> <p>Use analgesics for abdominal</p>

		<p>pain/cramping (e.g. Paracetamol 1000 mg stat dose).</p> <p>Ask client to come again and until then, help her choose another method.</p>
<p>2. Suspected uterine perforation</p> <p><b>(During uterine sounding or IUD insertion)</b></p>	<p>Suspect this when:</p> <p>I. Client complains of severe pain of sudden onset during procedure.</p> <p>II. Sound or loaded IUD inserter tube passes into uterus beyond 8 cm without fundal resistance being felt.</p>	<p>Stop the procedure.</p> <p>Remove sound/IUD and make arrangements to send the client to hospital.</p> <p>Until such time observe for signs of intra abdominal bleeding (i.e. falling BP, rising pulse, severe abdominal pain, tenderness, guarding and rigidity). Take BP and pulse every 15 minutes.</p> <p>Provide a back-up contraceptive method.</p>
<p>3. Cramping</p> <p><b>(In the first 24-48 hours)</b></p>	<p>This is a common complaint.</p>	<p>Reassure and treat with simple analgesics such as Paracetamol. The pain should gradually disappear.</p>
<p>4. Spotting</p> <p><b>(In the first 3-4 weeks)</b></p>	<p>This is a common complaint.</p>	<p>Reassure</p>
<p>5. Lower abdominal pain</p> <p><b>(In the first 3-4 weeks)</b></p>	<p>This is a common complaint in the first few days. If the pain persists beyond one week:</p> <p>I. Ask for associated features of PID (fever, vaginal discharge, dyspareunia).</p> <p>II. Do abdominal and pelvic (bimanual and speculum)</p>	<p>If no cause found and abdominal pain is not severe, reassure client and provide Paracetamol.</p> <p>If the IUD is partially expelled, replace with a new IUD or help the client choose another method.</p> <p>For other causes or if abdominal pain is severe refer to a specialist.</p>

	<p>examinations to check for PID and other causes of pain, such as partial expulsion of the IUD, cervical or uterine perforation or ectopic pregnancy.</p>	
<p>6. Irregular or heavy bleeding</p> <p><b>(In the first 3 months)</b></p>	<p>Perform pelvic (bimanual and speculum) examination to ensure there is no:</p> <p>I.Cervical pathology</p> <p>II.Evidence of intrauterine or ectopic pregnancy</p> <p>III.Spontaneous abortion or</p> <p>IV.Uterine pathology such as fibroids</p> <p>How much has she bled?</p> <p>I.Ask for passage of clots, bleeding twice as long/much as usual for her or more than 8 days.</p> <p>II.Check for signs of marked anaemia (pale conjunctivae or nail beds, low Hb level).</p>	<p>If client has <b>mild to moderate bleeding</b> and if examination is normal, reassure and give iron tablets (1 tablet daily for 2-3 months). Ask client to return in 3 months for another check. If available, use drugs, such as Mefenemic Acid (e.g. 500mg t.d.s x 3 days), during bleeding episodes.</p> <p>In case of <b>irregular, heavy bleeding</b> or severe anaemia (e.g. less than Hb 9 gm/dl) refer to a specialist.</p>
<p>7. Vaginal discharge</p>	<p>Check history for GTIs or other STDs exposure and examine for vaginitis or purulent cervicitis or beefy red cervix (ectropian).</p> <p>Obtaining accurate history (e.g. Trichomonas/green discharge, Monilia-curd like discharge) will facilitate diagnosis.</p>	<p>Examine vaginal discharge for Trichomonas, Monilia (Candida) and Gonococcal infections.</p> <p>If infection is diagnosed, refer to STD clinic.</p>

<p>8. Partner complains about discomfort during coitus.</p> <p><b>(I.e. feels thread or hard part of IUD)</b></p>	<p>Check to be sure that IUD is in place (i.e. not partially expelled)</p>	<p>Counsel client and partner that one option is to cut the strings shorter (inform client that she may no longer be able to feel string and record that strings have been cut short)</p> <p>If IUD is partially expelled insert a new one.</p>
<p>9. Pelvic Infection</p> <p><b>(Abdominal pain, fever, flu-like symptoms, chills, headache, nausea, vomiting, vaginal discharge, painful intercourse)</b></p>	<p>Perform abdominal and pelvic (bimanual and speculum) examinations.</p>	<p>If symptoms and signs are <b>mild</b>;</p> <ul style="list-style-type: none"> <li>- Treat with antibiotic without removing IUD.</li> <li>- Observe carefully for results of antibiotic treatment.</li> </ul> <p>If abdominal and pelvic examinations confirm uterine and/or adnexal tenderness and/or pelvic mass that supports the diagnosis of <b>severe PID</b>;</p> <ul style="list-style-type: none"> <li>- Refer to hospital early for further management</li> </ul> <p>If diagnosis is equivocal and if client requests for removal of the IUD;</p> <ul style="list-style-type: none"> <li>- Remove IUD and treat with antibiotic</li> <li>- Offer another method of contraception</li> </ul>
<p>10. Missing Strings (Could be due to expulsion, migration or strings falling out)</p>	<p>Ask the client whether she knows if the IUD has come out/ been expelled.</p> <p>If client does not know if IUD was expelled, ask her:</p> <p>I. When she had her LMP</p>	<p>If client knows the IUD fell out, check for pregnancy.</p> <p>If not pregnant, insert new IUD or provide back-up method and reinsert new IUD during her next period.</p> <p>If the strings are present reassure.</p>



	<p>II.If she has any symptoms of pregnancy</p> <p>III.If she used a backup method (e.g. condom) from the time she noticed the IUD had come out</p> <p>Do pelvic (bimanual and speculum) examination to check for hidden strings and exclude pregnancy</p>	<p>If pregnancy is suspected; - refer to specialist for confirmation and management.</p> <p>If client is not pregnant and no strings are seen on vaginal examination, it may mean that the IUD has fallen out or perforated or strings may be in the cervical canal;  -Refer to a specialist for further management.</p>
<p>11. Amenorrhoea <b>(Absent menses with IUD in place)</b></p>	<p>Ask client</p> <ul style="list-style-type: none"> <li>• When she had her last menstrual period (LMP)</li> <li>• Whether her periods are regular &amp; whether she is breast feeding</li> <li>• If she has symptoms of pregnancy</li> <li>• If she has any abdominal pain</li> </ul>	<p>If ectopic pregnancy is suspected refer to hospital immediately.</p> <p>If intrauterine pregnancy is suspected refer to a specialist for confirmation and management.</p> <p>If pregnancy is ruled out and if a possible cause for amenorrhoea such as breast feeding, post partum, no treatment is required. Counsel and reassure.</p>

If any side effects or complications have occurred they must be entered in the Family Planning Clinic Record (H-1153) and also reported in the '*Return on contraceptive failures, complications & poor quality products*' (Annex 9).

## 6. ORGANIZING AND MANAGING A FAMILY PLANNING CLINIC

Family Planning (FP) services should be accessible to the people and ideally there should be one clinic per about ten thousand population. Depending on the geographical distribution and the terrain, the population per clinic may vary and this should be discussed and decided by the team involved in service provision.

There are certain management and organisational requirements at the clinic level, which need to be met before quality family planning services can be offered. It should be well understood that IUD insertion is one component of FP services. Every FP clinic should be prepared to provide the wide range of methods that could be offered to clients at a clinic facility i.e. all the temporary methods in the National FP Programme. This will enable the clients to receive their method of choice. Also in practice, service providers should ensure that they are adequately prepared to provide quality services and address the following types of questions.

- Is the clinic registered? (All FP clinics have to be registered by the Family Health Bureau. If not get the clinic registered by sending an *application form* (Annex 7)
- Is the clinic well equipped and space organised to ensure privacy and a smooth client flow?
- Is the staff trained in FP counselling and service delivery including IUD insertion?
- Are supplies and other aspects of logistics well organised to provide uninterrupted services?
- Is the clinic schedule displayed in a prominent place?

### 6.1 Facilities

IUD services should be delivered only through clinic-based services because of the competency and infection prevention practices required to insert and

remove IUDs (pills and condoms can be provided through both clinic based and domiciliary services).

IUDs can be offered in clinics situated in the field or in hospitals. Although most clinics providing maternal, child health & family planning services will be able to incorporate IUD services within their existing facilities, there are certain requirements such as adequate space, furniture linen and equipment that should be available to provide high quality, comprehensive services.

In an ***ideal*** situation space needs are:

- A comfortable registration and client waiting room or area
- Toilet and washing facilities for clients and staff
- Space for counselling in order to ensure privacy
- A private examination/procedure room with a door, examination bed, adequate lighting, a wash basin etc, where clients can be examined and IUDs inserted and removed.
- Cleaning area/utility room where instruments and other items can be cleaned.
- Area for high-level disinfection or sterilisation/autoclaving of IUD instruments and storage space for sterilized items.
- A Cool, dry, secure and well ventilated storage area for medical supplies.
- Area for office work, maintenance, storage of records and information material.

Several of these functions may share a common space, especially in health facilities that are not very busy. As the number of clients increase, a separate area may need to be assigned for each function.

## **6.2 Client flow**

The design of the facility should permit an orderly flow of clients in order to *ensure comprehensive, cost-effective services and client satisfaction*. Figure

6-1 shows how a potential IUD client might enter and go through a well arranged health facility offering family planning services.

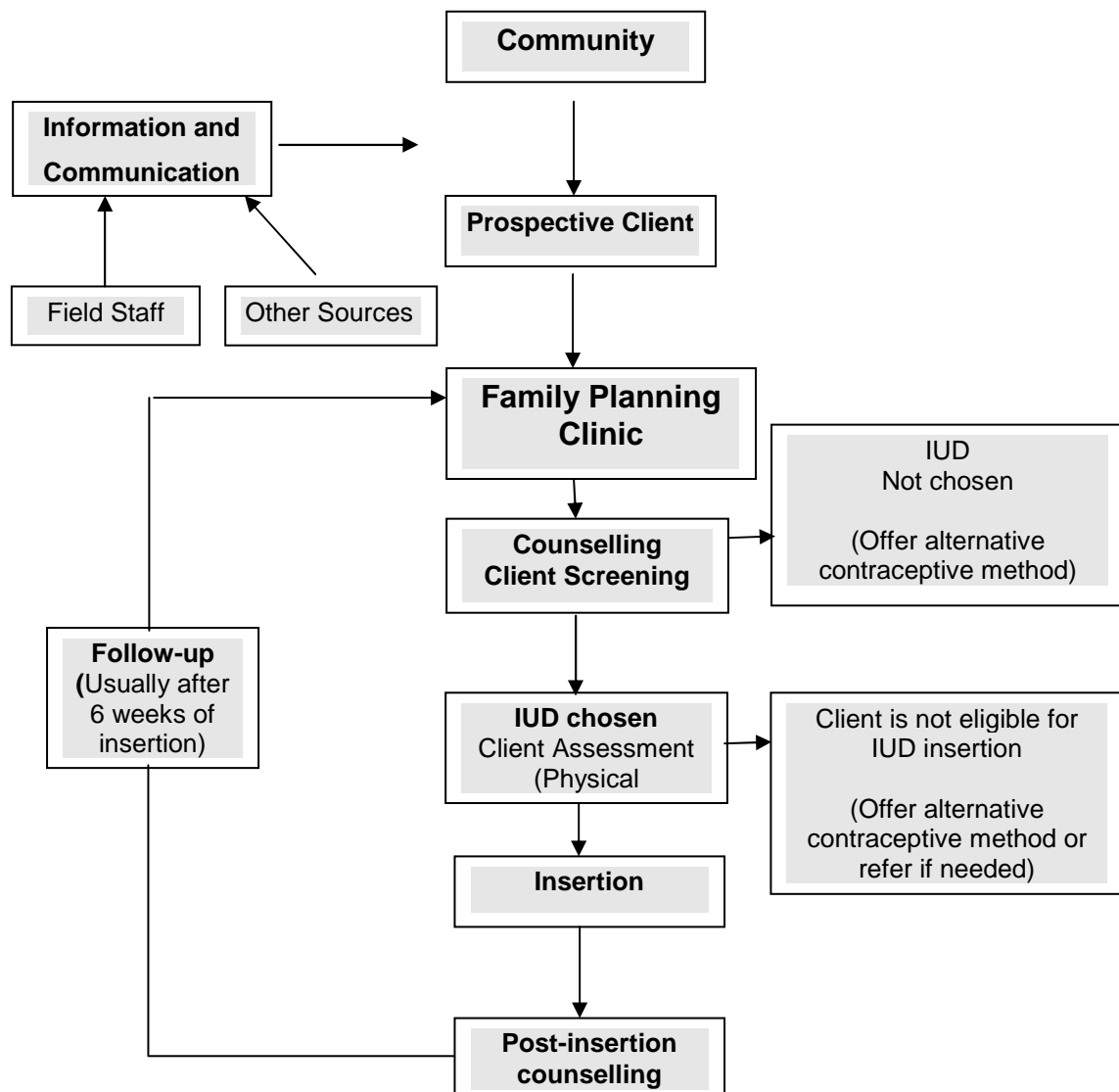
Clinic services should be assessed in relation to potential client accessibility.

- Can enough clients get to the clinic easily?
- Are the clinic hours convenient for working people?

If the service point is too distant, a client may not return for follow-up visits ; both because of the distance involved and the possible expenses (fares, loss of pay for time off).

☞ Ideally, a FP clinic should be conducted once a week or at least once in two weeks.

**Figure 6-1: Client flow for IUD services**



### 6.3 Staff functions

It is the responsibility of the staff assigned to a clinic to ensure that the clinic functions smoothly to provide with family planning services to the satisfaction of the clients. Where possible, assistance of volunteers or community organisations should be obtained to organise clinic activities. Tasks such as counselling and service provision should be done by trained health care workers. The officer in charge of the clinic is responsible for the overall management of the clinic. The following list gives some of the important activities that should be carried out in a family planning clinic.

Client Care	Clinic Management	Logistics
<ul style="list-style-type: none"> <li>• Providing information material</li> <li>• Scheduling appointments and follow-up visits</li> <li>• Counselling</li> <li>• Screening</li> <li>• Inserting and removing IUDs</li> <li>• Managing common side effects and making referrals for serious complications</li> </ul>	<ul style="list-style-type: none"> <li>• Organising the clinic</li> <li>• Cleaning the facility</li> <li>• Processing used (soiled) instruments and other items</li> <li>• Record keeping</li> <li>• Supervising staff</li> </ul>	<ul style="list-style-type: none"> <li>• Preparing supplies needed for each insertion and removal</li> <li>• Ordering IUDs and other supplies</li> <li>• Storing IUDs and other supplies</li> </ul>

In order to increase method acceptance and continuation, certain key elements of quality of care should be incorporated with family planning clinic management and service provision. The following six elements (proposed by Judith Bruce) of high-quality family planning services should be ensured for client satisfaction.

### **Key elements of quality**

1. Access to a choice of methods
2. Provider competence
3. Information given to clients, including counselling
4. Interpersonal relations between provider and client(kind courteous services)
5. Appropriate constellation of services, meaning the availability of related health care services as well as family planning(e.g. MCH & FP)
6. Follow-up and continuity of services.

(Source: Population Reports Series J No.40)

### **6.4 Equipment, instruments and other supplies**

All FP clinics should be properly equipped to provide the range of temporary methods offered by the National FP Programme. IUD insertion or removal requires high level disinfected or sterile instruments and aseptic conditions. Ideally, there should be one set of IUD instruments per client. An adequate number of sets should be available (with two additional sets) depending on the average number of IUD acceptors per clinic. The basic list of equipment needed for a clinic is given in Annex 8.

### **6.5 Ordering and storing medical supplies and IUDs**

All contraceptive delivery systems require adequate supplies. IUDs and required contraceptives should be ordered in time by using the H-1158 form to ensure that services are not disrupted by lack of them.

IUDs should be stored in a cool dry area. They should not be carelessly dumped in open cupboards or drawers which expose them to dust and insect attack. The IUD supplies should be dispensed according to 'First Expired/First Out' (FEFO) concept.

**Tip:** Before storing, mark expiry date on IUD box so that it can be clearly seen to be used before expiry date. Any stocks that are unlikely to be used before expiry date should be arranged for redistribution to other service delivery points well ahead of expiry date.

## **6.6 Record keeping**

Each client must be provided with a Family Planning Client Record (H-1155). Keeping specific and up-to-date records on each IUD user (clinic H-1153 & field H-1154) can improve follow-up and provide documentation for service statistics and programme evaluation.

### **References:**

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