



Comprehensive Postpartum Project

Quality Assurance

Hashemite Kingdom of Jordan
Ministry of Health

1999

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INTRODUCTION

QUALITY MANAGEMENT

"Quality is never an accident. It is always the result of high intention, sincere effort, intelligent direction, and skillful execution. It represents the wise choice among many alternatives."

Willa A. Foster

"We can't always cure Clients. We can't always correct the problems that brought them to our doors. But we can and always should care for the whole person. Caring will be as important as curing in the overall health environment."

Ron. J. Anderson

Many years have passed since the appearance of the concept of quality assurance in the field of primary health care. However, quality assurance could mean, "Doing the right things right, the first time." Standards are created when experts are able to understand what the right things are and how the right things are best achieved. Quality can thus be said to be compliance with standards.

Compliance with standards is the measurable aspect of quality assurance -- equally important is the intangible perception of the client. Does the client perceive that he/she is the recipient of quality care? Quality as perceived by the Client is generally more a function of the degree of caring expressed by physicians and staff than a question of technical competence or the health care infrastructure.

Donabedian highlighted three closely interrelated components of quality.

- a- The quality of technical care. This means the ability of health services to produce the best possible improvement in health status drawing from available science, technology and skills.
- b- The quality of interpersonal relationships between the client and the health team.
- c- The quality of the amenities of care.

We believe that customer satisfaction begins with employee satisfaction. Simply stated, if we put our employees first, they will deliver excellent services. Managing the people across the CPP centers so that they are, in fact, effective in improving their centers' performance, requires a belief in the

value of their contribution and their personal and professional willingness to commit.

One of the Comprehensive Postpartum Project's (CPP) objectives is to develop and establish national standards and service delivery guidelines for antenatal, intrapartum, postpartum, infant care, counseling and family planning. While the quality of health services in Jordan is high and health professionals are enthusiastic and committed, there are no standardized guidelines that encompass and integrate antenatal, postpartum, and family planning services. This is partly due to the recent introduction of family planning and postpartum services into the health system.

The MOHHC has recognized the need for standards for service delivery for both newly introduced and existing services. The CPP/Pathfinder project has, with the leadership and support of MOHHC and in collaboration with RMS, developed Jordan-specific standards and guidelines that are consistent with international standards of quality. This manual is divided into three chapters and an appendix. Chapter 1 offers a definition of quality assurance and lists key quality elements that are essential for effective CPP operations. Chapter 2 explains the importance of standards in maintaining high-quality services at the CPPs and outlines standards for e functions (center management, antenatal care, postnatal care, well-baby care, family planning clinical care and family planning counseling.) Chapter 3 explains how to identify and collect indicators which can be used to measure whether the standards outlined in Chapter 2 are being successfully adhered to. Finally, the appendix offers a wealth of tools that can be used to develop quality assurance standards and indicators.

This manual was developed by the Ad Hoc Committee on Quality Assurance, a team of Jordanian experts who labored for over a year to prepare the manual's components. The Committee received technical assistance and financial support from CPP/Pathfinder. Pathfinder International would like to recognize the efforts of our Jordanian colleagues who have worked hard to produce these standards. The following are the names of those who participated in the development of the Jordanian standards of quality.

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Pathfinder International would like to express its gratitude to Dr. Jose Garcia Nunez for his invaluable contributions and to Ms. Lisa Carty for her gallant effort in editing the English version of the standards.

Finally, Pathfinder International would like to recognize the effort and the time of the CPP staff especially Ms. Randa Nubani, Ms. Iman Ba'ara, Ms. Grace Baghdassarian and Ms. Hana Foudeh who worked very hard for extended hours over a period of one year in order to ensure the production of this manual.

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Chapter One
Elements of Quality

Chapter 1

Elements of Quality

Task

The task of the Ad Hoc Committee on Quality Assurance was to develop and define key quality of care concepts relevant to the effective operation of Comprehensive Post-Partum Centers (CPPs). The Committee was charged with defining the key services to be offered at CPPs, outlining the critical, quality elements to be included in each service, and defining indicators for their measurement.

Introduction

During the late 1980s and throughout the 1990s, there has been much discussion about program administrators have always been concerned about the quality of the services which they provide. Today, however, there is an effort to develop a systematic approach to quality which can be measured and evaluated.

The primary goal of family planning programs in the 1950s and 1960s was to control rapid population growth. There was, therefore, a strong emphasis on the quantitative aspect of service delivery, particularly measurable inputs. How many contraceptives were distributed? These quantitative aspects of service delivery were relatively easy to measure. As international experience with family planning programs grew, however, the importance of the relationship between quantity and quality was recognized. Too great an emphasis on quantitative inputs often came at the expense of providing quality services, while improving the quality of services often led to an increased demand for family planning methods.

Contraceptive prevalence is determined not only by the number of couples who accept contraception, but by how long they use family planning methods and whether they use them correctly. Both of these issues are effected by the quality of services provided. It is easier to motivate people to take advantage of family planning services if they believe that the services are of good quality. While the qualitative aspects of service delivery are more difficult to measure, their measurement is essential if program managers are to attract additional clients and increase contraceptive prevalence. In order to improve program quality, program managers must first define key qualitative elements and then assess whether they are included in existing programs.

Definition of Quality Assurance

Quality assurance is a commitment by health care providers to work towards the goal of providing optimal health care to every client by providing the correct care in a timely and sensitive manner. Implementing a quality assurance program requires the definition of indicators that reflect the delivery of quality services. Indicators that measure health outcomes, client satisfaction and cost-benefit, are essential to determining the success of a quality assurance program.

Preconditions for Quality

Quality health care requires a supportive environment and is strongly influenced by certain preconditions or determinants. Including:

1. The degree of direct policy support from senior managers;
2. Whether resources are allocated in a manner that supports quality care; and,
3. Overall program management.

Quality services are characterized by:

1. Staff that are technically competent and caring;
2. An accessible physical plant;
3. Good communication among all staff members;
4. Effectiveness and efficiency; and
5. Continuity in client-provider relationships.

The following chart lists in detail key quality elements that are essential for the effective operation of a CPP.

Elements of Quality

Inputs	Quality Characteristics
I. Structure of the Center	<ul style="list-style-type: none">- Clean, comfortable and safe- Well-ventilated- Well-designed- Well-equipped- Accessible to client population
II. Staff	There should be: <ol style="list-style-type: none">1. A center manager2. Ob/Gyn, family doctor, general practitioner, pediatrician3. Nursing staff<ul style="list-style-type: none">- Nurse for well-baby clinic- Midwife/nurse for family planning- Nurse for antenatal clinic- Nurse for postnatal clinic

Inputs	Quality Characteristics
	4. Receptionist 5. Counselor 6. Maintenance/Janitorial staff - Staff competence - Staff should receive continuous in-service training in order to best meet client needs. - Staff should be motivated and committed, possessing a positive, open attitude that will make clients feel welcome.
III. Service	Services should be structured to meet the following: 1. Antenatal care 2. Postnatal care 3. Family planning services 4. Well-baby care 5. Prevention and management of STDs 6. Screening for breast and cervical cancer. 7. Counseling and health education for clients and adolescent In addition, services should: - Be sensitive to cultural and religious norms - Provide privacy and confidentiality - Offer client choice and provide client satisfaction - Be affordable and accessible Finally, services should be managed so that there is a: - Good client flow - A referral system - Documentation - Continuity in providers for a particular service
IV. Commodities & Logistic System	- Adequate and regular supply of a variety of contraceptives - Well-planned and maintained logistic system, including the ability to inventory and account for all commodities and supplies

Inputs	Quality Characteristics
V. Equipment	<ul style="list-style-type: none"> - Availability of suitable equipment - Regular maintenance of all equipment - Modernization of equipment when necessary
. Communication and interpersonal Relations	<ul style="list-style-type: none"> - Facility for fax, telephone and computer - Good communication between different levels of health care providers: <ul style="list-style-type: none"> Center Managers - CPP Management Center Managers - Hospital Director Staff - Clients - Regular meetings at different levels - Good feedback at different levels
VII. Information, Education and Counseling	<p>Availability, updated and comprehensive planning for information, education and counseling should include provision of:</p> <ul style="list-style-type: none"> - Ongoing training of staff to improve counseling skills - Audio-visual materials for education and learning - Print materials, brochures, pamphlets, flipcharts, booklets - Publicity, TV, radio, mass-media, lectures - Private facilities for counseling and education
VIII. Management Information System	<ul style="list-style-type: none"> - Well-planned client records with accurate registration - Good filing system - Easy and accurate data entry - Regular reporting to MOH, CPP management - Availability of evaluation system - Good feedback system between policy makers and providers

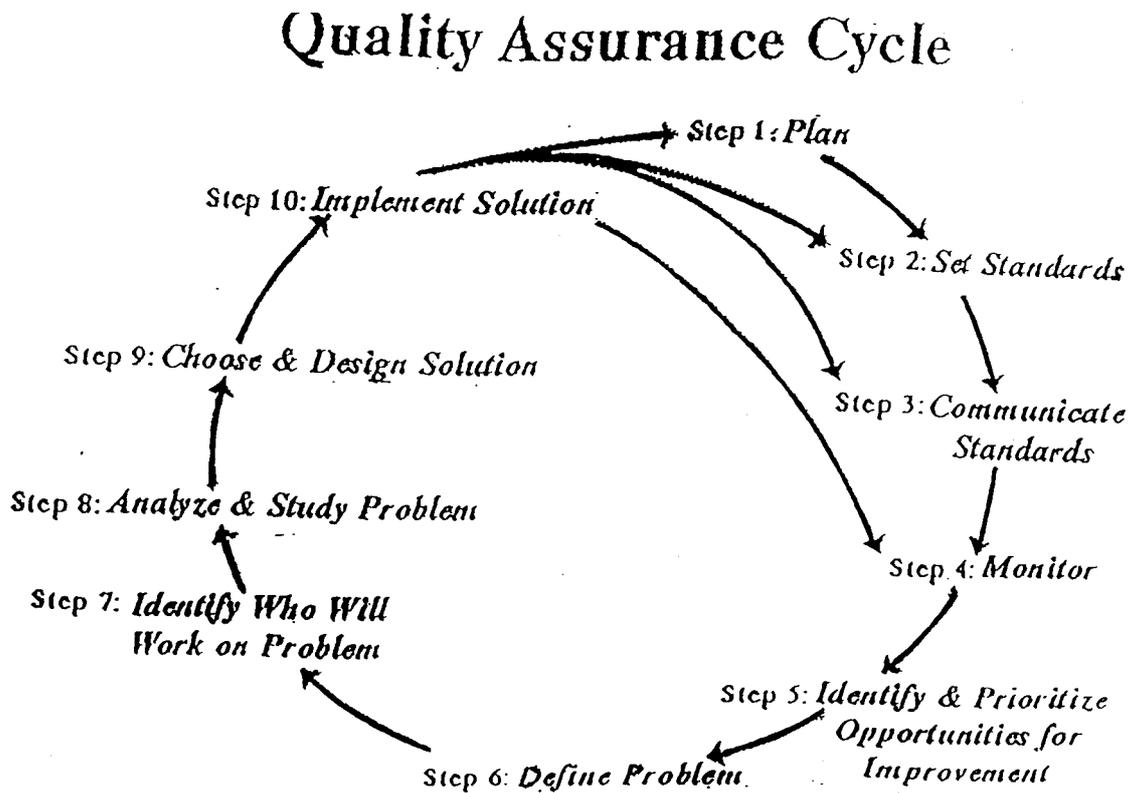
Chapter Two
Standards and CPP Center
Functions

CHAPTER 2

Standards

What Are Standards and How Are They Set?

Standards are an integrated part of quality assurance (QA), playing a key role in the overall QA framework. They are necessary building blocks for monitoring and quality improvement and support all steps of the QA cycle. Consistent, high quality services can be maintained through the correct application of standards. Standards are statements of expectations for the inputs, processes, behaviors and outcomes of the health system. Simply put, standards tell us what we expect to happen to have high quality health services



Standards are important because they are the vehicle by which the organization operationalizes quality and holds everyone in the system (care provider, support personnel, management) accountable. Standards also allow the organization to measure its level of quality. Standard setting, monitoring and quality improvement are the three central components of a QA program. Standards and indicators are the elements that make the QA system work in a measurable, objective and quantitative way. In the health care field, the term standards is sometimes used to describe guidelines, protocols, standard operating procedures and specifications for clinical and non-clinical activities.

Some Related Definitions

Guidelines are statements by experts that describe recommended or suggested procedures. They systematically describe what the user should or should not do for each step of an activity such as prenatal care or staff supervision.

Protocols are a more precise and detailed plan for a process, such as the management of a clinical condition. Protocol implies a more stringent requirement than a guideline, such as WHO protocols for diarrhea case management.

Standard operating procedures (SOPs) are statements of the expected way in which an activity should be performed for billing Clients.

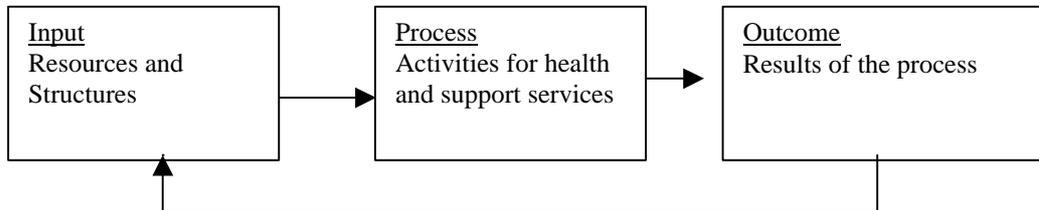
Specifications are detailed descriptions of the characteristics or measurement of a product service or outcome. For example, appropriate specifications for purchase of Amoxicillin.

The Role of Standards in Reducing Variation

In every process there is a certain amount of variation. Variation is natural and is to be expected in every health care process. However, through continuous quality improvement techniques, health workers can increase their knowledge of and control over variation in health care practices. There are two types of variations that health providers should be alert for: common cause (sometimes called system cause or chance variation); and, special cause (sometimes called assignable or attributable cause variation).

Common cause variation is inherent in a process and can be reduced, but never eliminated completely. Common cause variation is inherent in a process by design. Special cause variation is variation that can be attributed to factors outside the process. It is often unpredictable and erratic, but can sometimes be eliminated without changing the process. In cases where special causes cannot be eliminated, it is helpful to understand them, so that the process is not changed inappropriately. It is often advisable to address special cause first, bringing the process under control. Improving the process itself eliminates further variation.

The systems framework describes the components of health care inputs, process, and outcomes. Translating quality into operational terms involves setting standards for: (1) resources/inputs, such as the materials, drugs, and other supplies; (2) the delivery process for specific health and support services; and, (3) the desired outcome of these processes.



Characteristics of Standards

An organization can adapt standards and indicators from outside sources or develop its own standards and indicators. In either case, the standards and indicators should be valid, reliable, clear, and applicable.

1. Standards Should Be Valid

This is the most important attribute of a standard. The standard must be valid; that is, there is a strong, demonstrated relationship between the standard and the desired result it represents. That is to say, if A, B and C are used as inputs into a given system, and D, E, and F are followed as processes, then G, H, and I, should occur as outcomes. As often as possible, standards should be based on current research or data that supports the relationship.

2. Standards Should Be Reliable

Reliable standards should consistently give the same result each time the standard is used. That is to say, if A, B, and C are used as inputs in a given system every time, and D, E, and F are followed as processes every time, then G, H, and I should occur as outcomes of the system every time. However, in health care sometimes valid and reliable standards are followed and yield adverse outcomes such as illness and death. Those who set standards should understand this and try to set standards that are as reasonably valid and reliable as possible.

Examples of reliable and unreliable standards are as follows:

forehead and estimate the body temperature based on your experience.

Reliable standard: To assess fever in a child, measure the body temperature by placing an oral thermometer under the child's tongue for three minutes.

3. Standards Should Be Clear

To the extent necessary, standards should be clear to those who use them. Write standards in clear, unambiguous terms so that workers who use the standards do not misinterpret them. Examples of clear and unclear standards are as follows:

Unclear standard: Use antibiotics to treat acute respiratory tract infection (ARI).

Clear standard: Treat ARI with (antibiotic name), recommended dose (xx) milligrams every (x) hours for (x) days.

4. Standards Should Be Realistic and Applicable

Standards should be realistic and applicable, given the available resources and the training of the health care workers responsible for carrying out the standards. Examples:

Unre

Realistic standard: In the absence of x-ray services, practitioners should use the respiratory rate to diagnose ARI.

The Six Step Process for Standard Setting

Step 1: The organization should identify clinical and non-clinical functions that require standards. These functions are the various systems and subsystems that make up the health care and managerial services and activities that the organization does on a regular basis. They may be clinical diagnosis/procedures or other clinical or non-clinical activities that the organization decides are important.

Step 2: The organization should review and adopt a set of value statements and guiding principles (see below) to help it determine the quality characteristics it seeks to achieve.

Step 3: The organization should identify the elements for inputs, processes, and outcomes for the chosen function or set of functions.

Step 4: The organization should define the quality characteristics which are the attributes of the inputs, processes, and outcomes that the organization decides are essential to how it defines quality health care.

Step 5: The organization should develop or adapt a standard or set of standards for each quality characteristic.

Step 6: The organization should assess the appropriateness of the standards.

Examples of Value Statements

- **Service quality:** We respect the dignity of our clients. We plan to anticipate and exceed their expectations and to meet them with kindness and understanding.
- **Health care excellence:** We intend to be a model in providing Client-centered quality health care.
- **Health promotion:** We promote wellness for our clients, staff and our community.
- **Community partnership:** We strive to listen carefully and to communicate clearly.
- **Resource utilization:** We value and support the wise and efficient use of our resources.

Examples of Guiding Principles

- **Compliance:** We will work to achieve the highest level of compliance with regulations.
- **Respect:** We will respect clients, staff and visitors -- their privacy, dignity and their rights. We will ensure confidentiality regarding client-physician specific data.
- **Empowerment:** We are committed to continuing our professional education in order to learn as much as possible about our respective fields. We will also empower others through teaching our skills.
- **Effectiveness:** We will be timely and accurate, and will ensure the completeness of tasks that we perform.
- **Communication:** Active communication at all levels of our organization is essential for our success.

CRITICAL CPP CENTER FUNCTIONS AND STANDARDS

The remainder of this chapter offers suggested functions and standards which are relevant to the operations of CPP centers. Suggested standards of care are offered for six distinct functions:

- Management functions
- Antenatal care functions
- Postnatal care functions
- Well-baby care functions
- Family planning clinical functions
- Family planning counseling functions

The standards that follow provide guidelines for the day-to-day operation of the key functions at CPP centers. The development of indicators for measuring the successful management of these functions will be discussed in Chapter 3. It should be stressed that the management function is as critical as any clinical function in the overall operation of the CPP center. In order to ensure the effective delivery of services, providers must ensure that the proper management infrastructure is in place.

SUMMARY LISTS OF SIX CRITICAL CPP CENTER FUNCTIONS

I. Management Functions

- I 1. Receiving clients
- I 2. Filing system and medical records
- I 3. Maintenance of building and equipment
- I 4. Supply and inventory
- I 5. Communication
- I 6. Follow up and appointments
- I 7. Referral system
- I 8. Time management
- I 9. Monitoring and evaluation
- I 10. Health education
- I 11. Infection Prevention
- I 12. Sanitation
- I 13. Storage

II. Antenatal Care (ANC) Functions

- II 1. Filling records
- II 2. Blood pressure
- II 3. Weight measurement
- II 4. Lab tests
- II 5. Obstetrical history
- II 6. General physical examination
- II 7. Obstetrical examination

- II 8. Ultrasound examination and fetal monitoring
- II 9. Follow-up referral and treatment
- II 10. Facilitate client education

III. Postnatal Care (PNC) Functions

- III 1. Filling clients record including past medical and obstetrical history
- III 2. Intrapartum history
- III 3. General physical examination
- III 4. Gynecological examination
- III 5. Client education
- III 6. Referral

IV. Well-Baby Clinic Functions

- IV 1. Filling records
- IV 2. Intra partum history to include:
 - a. Mode of delivery
 - b. Weight of newborn
 - c. APGAR score
 - d. Gestational age
 - e. Complications during and after delivery
 - f. Feeding and illnesses
- IV 3. General physical examination, to include:
 - a. Head & neck (Fontanel)
 - b. Face
 - c. Weight, length and head circumference
 - d. Chest and heart
 - e. Abdomen and umbilicus
 - f. Pelvis and extremities (CDH and others)
 - g. Genitalia
 - h. Reflexes
 - i. Back
 - j. Skin
- IV 4. Referral

V. Family Planning Clinical Functions

- V 1. Filling records
- V 2. Staff
- V 3. Medical history and exam
- V 4. Service provision

VI. Family Planning Counseling Functions

VI 1. Definition

VI 2. Principles

VI 3. Staff Characteristics

VI 4. Framework

VI 5. GATHER Method

VI 6. Documentation and Referral

VI 7. Standards for Successful Counseling

DETAILED STANDARDS FOR THE SIX CRITICAL FUNCTIONS

Standards

I. Management Functions Standards

I.1. Receiving Clients

- i. Should be done by a well-trained receptionist with an open welcoming attitude.
- ii. Clean, comfortable, well-ventilated, well-furnished and spacious reception area.
- iii. Waiting time should not exceed five minutes.

I.2. Filing System and Medical Records

Should be done by a well-trained receptionist.

- i. Each client should have CPP medical record and CPP booklet.
- ii. Daily registration for clients possibly with serial number and insurance number .
- iii. Records should be filled in accurately and completely.
- iv. Files should be distributed to concerned services and doctors according to the appointment system.
- f. Files should be collected systematically and computerized.
- vii. Files should be kept in specially designed cupboards.
- viii. Files should be arranged according to numbers and colors (colored digit system).
- ix. Retrieval of files should be limited to authorized persons.
- x. Archive area should be secured and guarded.
- xi. Well-established retrieval system according to numbers and names.

I.3. Maintenance of Building and Equipment

- a. Written maintenance program for building and equipment should be developed and updated.

This program should include:

- 1- Frequency of maintenance,
- 2- Assigned person for maintenance supervision,
- 3- Reporting channels.

- b. Doors, windows, running water , electricity, central heating and sewage system should be functioning all the time.
- c. Drinking water should be available and adequate all the time.
- d. Adequate safety measures for fire and electricity should be in place.
- e. All necessary equipment should be available and functioning.
- f. CPP center should have a mechanism to detect under utilization as well as over utilization of the available equipment.

I.4. Supply and Inventory

- i. Supply of all logistic needs should be continuous, regular, and of good quality.
- ii. All supplies should be kept according to storage guidelines.(See Appendix.)
- iii. One well-trained person should be responsible for the logistic system.
- iv. Well established logistic system .

I.5 Communication

- a. All CPP centers should be connected with adequate telephone lines.
- b. Each CPP center should have at least one functioning fax machine.
- c. Some means of transportation should be available for each center all the time.
- v. When possible, each center should be connected to an internet service and e- mail.
- e. Specific staff should be assigned responsibility for communication functions.

I.6 Follow-up and Appointments

- i. Well-established follow-up system to ensure the continuity and timeliness of the service.
- ii. Practical appointment system to ensure smooth client flow, reduction of waiting time, and early detection of defaulters.

I.7 Referral System

- i. Referral system based on generally accepted guidelines and criteria.
- ii. Well-designed referral forms should be available.(Appendix Protocol II.a.9(1))
- iii. Registration for all referred cases (computer and record) should include the following:
 -
 - Date
 - Referred by
 - Referred to
 - Reason for referral
 - Feed back notes.
- iv. Referral notes and feed back notes should be documented in the client's record.

1.8 Time Management

- i. Center working hours should be clearly established for both staff and clients.
- ii. Official working hours for CPP centers should be 8:00a.m to 3:00 p.m.
- iii. All clinical activities should be offered daily (ANC, PNC, FP, well-baby clinic) according to a written weekly timetable.
- iv. Each staff member should have a written job description outlining his/her responsibilities and daily time management.
- v. Each CPP manager should develop an individualized tool to measure the effectiveness and the efficiency of

- vi. Specific time for daily and monthly meetings should be scheduled in each CPP center.
- vii. Activities included in the annual work plan of each CPP center should be conducted according to the timetable of the plan.

I.9 Monitoring and Evaluation

- i. Managers of CPP centers are responsible for monitoring and evaluation of all clinical and non- clinical activities.
- ii. Well-designed monitoring systems should be developed to ensure the quality of input-process-outcome of all functions.
- iii. Monitoring systems in the CPP center should include:
 - 1. A specific person responsible for all monitoring activities;
 - 2. Necessary tools for data collection;
 - 3. An ability to analyze and distribute data once collected;
 - 4. A plan for taking corrective action when needed;
 - 5. An ability to document all monitoring activities.
- d. Internal and external evaluation activities should be conducted to ensure the positive impact of the program.

I.10 Health Education

I.10.a. Personnel

All members of the team must participate positively in the process of health education inside and outside the CPP center. Health educators should have the following characteristics.

- i. The health educator must have technical qualifications in health education.
- ii. The health educator must be familiar with the traditions, popular customs, and social background of the client.
- iii. The health educator must believe in and be actively committed to the message of health education.
- iv. The health educator must present a good example, especially for the message of health education he is presenting. (E.g. He should not smoke if he is asking others to stop smoking.)
- v. The health educator must have initiative and motivation as well as the capacity to communicate and convince others with the message of health education.
- vi.

I.10.b Equipment Required for Performing Health Education

- i. If necessary, a car in a good condition should be made available.
- ii. Each CPP center should also have;
 - Display screen - slide projector
 - Video and T.V - over head projector
 - Flipcharts and models
 - Booklets, pamphlets and posters
 - White board for writing.

I.10.c Use of IEC Materials

- i. Each center should have a written work plan regarding the use of IEC materials.
- ii. All TV spots and radio spots should be recorded and available in all centers.
- iii. All IEC print materials should be available in adequate supply.
- iv. All materials should be pretested to ensure their suitability for the client population.
- v. One staff member should be responsible for follow-up, supply and assessment of IEC materials.
- vi. All IEC materials should be reviewed regularly for effectiveness and client perception.

I.10.d Health Education Record

Each CPP center should have a health education plan and record of accomplishment.

This should include:

- i. A plan of activities in chronological order.
- ii. Outlines of issues to be covered under each health education topic area with clear reference to relevant IEC materials to be used.
- iii. Record of classes, lectures, outreach provided.
- iv. Informal a

I.11 Infection Prevention

All staff members should be trained on infection prevention according to CPP guidelines.

I.12 Sanitation

I.12.a Routine House Keeping

- i. Each center should have enough assigned staff for house keeping.
- ii. All needed materials for cleaning should be available at all times.
- iii. Routine house keeping should be supervised by a nurse.
- iv. Safety measures should be met.

I.12.b Waste Disposal

- i. Establish a schedule for routine cleaning
- ii. Establish written guidelines for the disposal of sharp objects, liquids, solid and hazardous waste.

I.13 Storage

Guidelines for Proper Storage

1. Clean room and whitewash walls.
2. Check roof for water leakage.
3. No direct sunlight on the supplies.
4. Storeroom not subject to water penetration.
5. Supplies to be stacked at least 4 inches (10cm) from floor.
(Arrange dunnage of wood or steel.)
6. Supplies to be stacked at least 1 foot (30cm) from any wall.

7. Separate stacks accessible for "first in first out" (FIFO), counting, and general management.
8. Stacks not more than 8 feet high (2.4 m).
9. Identification marks and other labels visible.
10. Supplies to be issued by carton or box lot, if possible.
11. Well ventilated.
12. Well lighted.
13. Fire extinguishers not blocked.
14. Vaccines must be stored in refrigerator.
15. Old files, information material, office supplies, etc. should be stored separately.
16. Insecticides and other chemicals not to be stored together with contraceptives and medical supplies.
17. Storeroom to be disinfected and sprayed against insects every third month.
18. Damaged and expired supplies to be separated and disposed of without delay.
19. Storeroom keys must be available at all times.
20. Daily cleaning of storeroom.

II. Antenatal Care (ANC) Standards

Antenatal care includes the provision of routine prenatal care (before becoming pregnant and during pregnancy), the identification of high-risk clients, and appropriate fetal surveillance of these clients. The objective of prenatal care is to assure that every pregnancy culminates in the delivery of a healthy baby without impairing the health of the mother. It is essential for the physician who assumes responsibility for prenatal care to be very familiar with the normal physiological changes, as well as the pathological changes that may develop during pregnancy. The major goals of prenatal care are as follows:

1. To define the health status of the mother and fetus;
2. To determine the gestational age of the fetus and to monitor fetal development;
3. To identify the client at risk for complications and to minimize that risk wherever possible;
4. To anticipate and prevent problems before they occur; and,
5. To educate the clients.

II 1. Filling Records

Records should be available and all relevant information recorded during the Client visit.

- i. Availability of appropriate, private place for interviewing clients.
- ii. Records completed by trained staff.

II 2. Blood Pressure (BP)

- i. Allow client to rest for 5 minutes.
- ii. Check sphygmomanometer and stethoscope for proper operation.
- iii. Sitting position and parameter at the level of client's heart.
- iv. Cuff of suitable size, a few centimeters above the cubital fossa should be used.

- v. Staff should be trained to take blood pressure accurately, considering;
 - First Korotkoff sound as systolic blood pressure (SBP) and,
 - Second Korotkoff sound at muffling as diastolic blood pressure (DBP).
- f. Results should be documented and underlined in red if pathologic.

II 3. Weight

Adult scale should be used.

- i. Balance should be accurately adjusted at zero on flat level.
- ii. Light clothing without shoes.
- iii. Weight should be documented in kg (a gain of 3 kg or more per month should be underlined in red).
- iv. Any sudden weight gain should be documented and underlined in red.
- v. Total weight gain during the entire pregnancy should be 10 -12 kg.
- vi. Gain of 1 kg or less per month during 2nd and 3rd trimester should be underlined in red.

II 4. Lab Tests

- i. Urine for albumin, at initial visit and when indicated thereafter
- ii. Urine analysis, at booking and when indicated.
- iii. Blood group, Rh factor at initial visit. If Rh negative, antibody titer should be done. (indirect coomb's test)
- iv. CBC at initial visit.
- v. Hb& PCV at 2nd & 3rd trimester. Hb \leq 10 or PCV \leq 30% should be underlined in red.
- vi. VDRL
- vii. Rubella antibody titer (preferable)
- viii. Hepatitis screening (preferable).
- ix. Fasting blood sugar (FBS) at initial visit and 28 and 34 weeks. If \geq 140 mg/dl, should be underlined in red.

II 5. Obstetric History

Obstetric history should be taken by a trained midwife or trained physician. It should be correct and complete. Initial obstetric history should include:

- i. **LMP, EDD** (calculated by Nagele rule) , menstrual regularity, lactation, use of contraception, gravidity, parity, abortions, pre term deliveries, still births (using 4 digit rule) (term, premature, abortion, living)
- ii. Mode, place, and date of previous deliveries
- iii. Previous pregnancies/complications/outcomes
- iv. Time of initial quickening during current pregnancy
- v. Any symptom or complaint during current pregnancy should be reported each visit.
- vi. Fetal movement should be reported in each visit
- vii. Risk assessment should be performed at initial visit, 2nd and 3rd trimester according to Coopland form
- viii. Additional tests as indicated by risk factors

II 6. General Physical Examination

Should be performed by a physician.

- i. Client should be informed of the results.
- ii. Exam should be complete and correct.
- iii. Client privacy and dignity should be protected.

II 7. Obstetrical Examination

Should be performed by an obstetrician or well-trained physician in a private area.

The obstetrical examination should:

- i. Assess growth by fundal height measurement starting at 16 weeks (see Appendix Protocol No. II.a.7 (1))
- ii. Measure symphysis fundal height in centimeters, approximate gestational age in weeks when the bladder is empty starting from upper edge of pubic bone up to the upper limit of the fundus, any discrepancy between date and SFH should be marked in red (see Appendix Protocol No. II.a.7.(2))
- iii. Starting at 16 - 20 weeks, use Doppler Fetal instrument to measure heart sound auscultation for rate and regularity. Any abnormality should be underlined in red.
- iv. Abdominal palpation using Leopold's maneuvers (see Appendix Protocol No. II.a.7.3) in each visit after 28 weeks.
- v. Any abnormality should be indicated and managed individually.
- vi. Carefully performed vaginal exam late in pregnancy is preferable for:
 - Pelvic clinical assessment;
 - High vaginal swab (HVS) for culture and sensitivity (C&S),
 - Others when indicated.

II 8. Ultrasound (U/S) and Fetal Monitoring

Should be performed by a competent and well-trained physician.

- i. Pregnant women should have U/S examination at first, second, third trimester and as indicated.
- ii. Fetal monitoring should be done when indicated.

II 9. Follow-up, Referral, and Treatment

- i. Up to 28 weeks on monthly basis.
- ii. 28 weeks - 36 weeks, bi-weekly basis.
- iii. Thereafter weekly or as frequently as needed.
- iv. Client should be admitted to hospital by an obstetrician if indicated.
- v. Referral form should be filled completely and signed by obstetrician.
- vi. Prophylactic iron and folic acid supplement should be started after 16 weeks of pregnancy.
- vii. Other medications should be given only by obstetrician, when indicated.

II 10. Client Education

- i. Diet
- ii. Relaxation and sleep
- iii. Exercise

- iv. Smoking
- v. Care of breasts and abdomen
- vi. Follow up visits
- vii. Bowel habits
- viii. Bathing
- ix. Clothing
- x. Drug ingestion
- xi. Danger signs
- xii. Care of teeth
- xiii. Common complaints and symptoms of pregnancy
- xiv. Child birth education

III. Postnatal Care "PNC "

III 1. Filling client record

Follow same procedures as described for antenatal care clients.

III 2. Intrapartum History

Should be complete, accurate, and include the following:

- i. Mode of delivery
- ii. Weight of newborn
- iii. APGAR Score
- iv. Gestational age at confinement
- v. Complications during and after delivery
- vi. Feeding and illnesses

III 3. General Physical Examination

- i. Blood pressure according to protocol
- ii. Weight according to protocol
- iii. Temperature
 - Should be taken by trained nurse
 - Oral temp. is preferable
 - Adjusted under 35 °C
 - 2-3 minutes duration
 - Should be read immediately and correctly
 - Should be recorded and underlined in red if above 37.5
- d. Head and neck neurological exam
 - Any abnormality should be documented
- e. Breast
 - Should be examined completely according to Appendix protocol II.b.3.(1).
 - For general appearance
 - Nipples
 - Other abnormalities
- f. Chest & Heart
 - Should be done completely and systematically
 - any abnormality should be reported
- g. Abdomen
 - should be examined generally and specifically for involution of the uterus
- h. Lower Extremities
 - Calf muscle tenderness & swelling
 - Pulse
 - Varicose veins

III 4. Gynecological Examination

Should be performed by a gynecologist or a well-trained physician; Exam should include the following:

- i. External genitalia
- ii. Speculum exam
- iii. Bimanual exam
- iv. Pap Smear is preferable

III 5. Client Education

a. Breastfeeding

- Should be encouraged immediately after delivery.
- Booklets and leaflets regarding breast feeding should be distributed and explained for each mother.

b. Nutrition

Each mother should be educated about proper nutrition and suggested supplements.

c. Hygiene

Each mother should be educated about the importance of personal hygiene for her health.

d. Exercise

Each mother should be informed about the importance of exercise for her health during pregnancy and after delivery.

v. Family Planning

Counseling for family planning should be started as soon as possible. (See part V on family planning counseling.)

III 6. Referral

- a. Client is referred by obstetrician when indicated.
- b. Referral form (attached) should be completed by obstetrician.
- c. Feed back notes should be returned to the referral site.
- d. Follow-up is the responsibility of the clinic nurse.

IV Well-Baby Clinic

II 1. Filling Records

- i. Every neonate should have an individualized health booklet including information on growth, development and immunization. The nurse or midwife should:

- Ensure that every child has received his/her own booklet.
- Ensure that relevant information has been documented in the appropriate space at the initial and at follow-up visits.
- _____ of the visit.

- b. Procedures to be done by the physician:

- Review the neonate health record.

- Ensure that all information and measurements have been recorded correctly by the nurse.

-
medical notes.

IV 2. Intrapartum History

a. Breastfeeding

The nurse or midwife should ask the mother about breast-feeding. Special attention should be given to babies with feeding or nutritional problems. Explain and demonstrate breastfeeding methods and their timing to the mother.

b. Mode of delivery

Vaginal delivery:

- = Cephalic
- = Breech
- = Forceps
- = Vacuum

Abdominal Delivery (Cesarean section)

c. Weight of the newborn

d. APGAR Score

APGAR Score should be considered at 1 and 5 Minutes .See Appendix Protocol (II.c.2.(1))

e. Gestational age

Gestational age should be checked at clinical examination.

f. Complications during and after delivery

g. Feeding and illnesses

IV 3.General Physical Examination

The attending physician should conduct a complete physical examination and the findings should be recorded.

This physical exam should include the following:

- i. Weight according to Appendix protocol (II.c.3.(1)
- ii. Head Circumference according to Appendix protocol(II.c.3.(2)
- iii. Length according to Appendix protocol (II.c.3.(3.a,b)
- iv. General appearance
- v. Skin
- vi. Fontanel
- vii. Eyes
- viii. Ears, Throat and Neck
- ix. Heart
- x. Chest
- xi. Abdomen
- xii. Umbilicus
- xiii. Anus
- xiv. External genitalia
- xv. Upper and lower Limbs for (dislocation of the hip) and others
- xvi. Reflexes

IV 4. Referral

Further care of the baby should be continued in MCH service centers.

. Family Planning

Elements of Quality and Standards

Interpersonal relations

- Service providers should be trained in interpersonal relation skills
 - Clients should be satisfied with :
 - Reception by staff
 - Responses to questions
 - General treatment

Choice of method

- Good variety of contraceptive methods should be available at the service delivery point
- The service provider should assure the client freedom of choice
- Client should receive her own method of choice
- The provider should refer the client to an alternate site when the method of choice is not available

Information given to clients

- i. All providers should give accurate and unbiased overview about all methods of contraception
- ii. Providers should give accurate, relevant information on methods accepted
 - How to use, advantages and disadvantages
 - Side effects , precautions , return visits and complications
- iii. All clients should correctly explain the method they have chosen
 - How to use the method - possible side effect
 - When to return

Technical competence

- i. Written guidelines on family planning practice should be available at each delivery center
- ii. All service delivery providers should receive training relevant to their jobs
- iii. All provider should demonstrate skills at clinical procedures according to guidelines
- iv. All levels of service providers should receive regular supervision

Mechanisms to ensure continuity

- i. Appropriate and reasonable scheduling and follow up system should be established
- ii. Managers should ensure that all clients can obtain re supply easily at the same center
- iii. All defaulters for follow up should be identified and contacted immediately

Appropriateness and acceptability of service

All clients should be satisfied with :

privacy, confidentiality, waiting time, and the time spent with providers.

V 1. Filing Records

- a. Individual records should be documented for each client.

V 2. Staff

- i. Service providers should be trained in interpersonal skills.
- ii. Clients should be treated with respect and made to feel at ease.
- iii. Written guidelines on family planning practice should be available at each CPP center.
- iv. All service providers should receive clinical training for available family planning methods.
- v. Providers should be required to demonstrate clinical competence with family planning methods.
- vi. All levels of service providers should receive regular supervision.

V 3. Medical History and Exam

- i. A complete ob/gyn history should be taken, previous family planning use recorded, and risk factors for future use evaluated.
- ii. A complete ob/gyn exam should be performed.

V 4. Service Provision

- i. A good variety of contraceptive methods should be available at the service delivery point.
- ii. The service provider should assure the client free and informed choice.
- iii. The provider should refer the client to alternate sites when the method of choice is not available.
- iv. A system for client follow-up should be established including provisions for contacting defaulters.

VI. Family Planning Counseling

VI 1. Definition of Counseling

Counseling is a two way process of communication by which one person helps another to identify her or his reproductive health needs and to make the most appropriate decisions concerning those needs. This is characterized by an exchange of information, ideas, discussion, and deliberation.

VI 2. Main Principles of Counseling

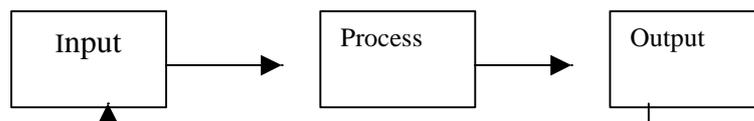
- i. Treat each client well
- ii. Interact
- iii. Tailor information to the client
- iv. Avoid too much information (information over load)

- v. Provide the method that the client wants
- vi. Help the client understand and remember

VI 3. Characteristics of Good Counselors

- i. Understands and respects the client's rights
- ii.
- iii. Understands the benefits and limitations of all contraceptive methods
- iv. Understands the cultural and emotional factors that affect a woman's decision to use a particular contraceptive method.
- v. Encourages the client to ask questions
- vi. Uses non-judgmental approach which shows the client respect and kindness
- vii. Presents information in an unbiased , client sensitive manner
- viii. Actively listens to the client's concerns
- ix. Understands the effect of non-verbal communication
- x. Recognizes when she/he cannot sufficiently help a client and refers the client to some one who can

VI. 4. Counseling Framework



- | | | |
|-----------------------|--------------------|-------------------|
| - Counselor | - Counseling steps | - Satisfaction |
| - Client | (GATHER) | - Complication |
| - Place | - Documentation | - Continuity rate |
| - Time | - Referral | |
| - Materials/Equipment | | |

V1.5 Structural standards for counseling

▪Counseling staff

- Should be well trained and formally certified
- Counselor should have the characteristics mentioned above .

▪Counseling area

- assures privacy
- should be clean
- comfortable and safe
- well ventilated
- spacious
- all needed counseling facilities should be available

▪Time of counseling

- should not be less than 10 mins.
- Proper use of time regarding the counseling process

▪ **Materials and equipment**

- Audio visual materials for counseling should be sufficient
- Print material, should be available
- Teaching models should be available

▪ **Clients**

- Clients should be classified according :
 - i. to the services offered (ANC, PNC, FP, Well baby)
 - ii. to client status:
 - New clients
 - Continuing clients

VI 6. The GATHER Method

- i. **G**reet client.
- ii. **A**sk client about himself/herself using open-ended and probing questions.
- iii. **T**ell clients about choices including benefits, risks, and side effects.
- iv. **H**elp clients make their own informed choice.
- v. **E**xplain fully how to use the chosen method.
- vi. **R**eturn visits or referral for follow-up should be explained.

VI.7 Documentation and Referral

- Each client should have her own record for counseling
- Counseling process should be documented indicating client's name counselors name and method of choice
- Referral form should be available
- Referral register should be available
- If chosen method is not available in the center, client should be referred to other center .

VI 8. Standards for Successful Counseling

- i. Clients should feel that their needs have been met in a helpful, positive manner.
- ii. Clients should feel fully informed regarding their contraceptive choice.
- iii. Rumors and misperceptions should be explored and properly treated.
- iv. Good counseling helps clients use family planning longer and more successfully.

Chapter Three

Indicators

CHAPTER 3

Indicators

What Are Indicators and How Are They Collected?

Health care providers and program administrators have always been concerned about the quality of services provided to clients. Today, however, there is an effort to develop a systematic approach to measure and evaluate success in delivering quality services. Judith Bruce made one of the first and most famous efforts to define quality care in reproductive health services. She developed a framework which includes the following six elements which are broadly applicable to CPP center services. According to Bruce, high quality services are most often characterized by:

1. Staff with strong interpersonal skills;
2. A broad choice of methods available to clients;
3. Provision of accurate, unbiased information to clients;
4. Technically competent staff;
5. Continuity in relationships between staff and clients with good follow-up; and,
6. Clients' perception that services are acceptable and appropriate.

The suggested CPP center indicators that follow are based on this framework.

Indicators are used to help measure success in achieving high quality health programs. Indicators are usually numerical measures that help to compare expected results with actual results on a periodic basis. They can be divided into two major types:

Operational Indicators: They are often numbers (rather than rates or percentages) and measure inputs, processes and outputs.

- **Input Indicators** are the measure of the human and financial resources required to operate a program. They include measures of funds expended, personnel employed and equipment purchased.
- **Process indicators** measure progress in accomplishing project activities such as production of training materials, numbers of personnel trained and numbers of vaccines administered.
- **Output indicators** measure the results of the process.

Performance Indicators: They usually measure the degree to which desired results and impact have been achieved. For example, actual changes in health behaviors/attitudes, changes in disease prevalence or health outcomes. They are often expressed as ratios or percentages. They are often divided into two levels:

- Intermediate-term program impact or outcome indicators; and,
- Long-term impact indicators

Sources of Data

The different sources of data for indicators are listed below. Some indicators can be evaluated using data obtained in different ways. The most appropriate way to collect data for a given indicator will have to be determined by possible sources of bias, the local situation, cost and other factors. The data for some indicators can only be obtained in one way. For example, if the indicator you wish to evaluate is the provider's technical competence in IUD insertion, direct observation is the only reliable way to obtain data for this indicator.

1. Administrative Records (AR)

Administrative records are reviewed. Examples of indicators obtained in this way are: provider training history; number of methods available at the clinic; whether or not there is a system for contacting clients who do not appear for follow-up appointments; number of new acceptors.

2. Client Records (CR)

Client records at the clinic are reviewed. Examples of indicators obtained in this way are appropriateness of method; whether voluntary surgical contraception consent forms are signed; whether follow-up appointment schedule is appropriate; complication rates for specific methods or procedures.

3. Client Survey (CS)

Client is interviewed or completes a questionnaire. This may be done by taking a randomly selected sample of the client population and contacting them at home. Example of indicators obtained in this way are: whether degree of privacy is acceptable to the client; whether the client receives the method of her/his choice; existence of barriers to access; whether client correctly understands how to use the method chosen and knows the benefits and risks of that method; continuation rate with a method; number of clients who recommended the service or clinic to someone else.

4. Exit Interview (EI)

Client is interviewed immediately after she/he has received services. Examples of indicators obtained in this way are: whether the provider has offered all appropriate methods; level of provider's counseling skills; whether degree of privacy is acceptable to the client.

5. Focus Group (FG)

A focus group is a semi-structured discussion led by a facilitator among a small group. Usually the members of the group share certain characteristics. For example, they might all be women between the ages of 20 and 30 who are currently using contraception.

Examples of indicators obtained in this way are: whether the length of the waiting time is acceptable to the client; whether level of privacy is acceptable; whether clients feel that they are treated with respect by the providers; reasons for not returning for follow-up, or for discontinuing the method chosen.

6. Direct Observation (DI)

This includes observation of client provider interaction, observation of a clinical procedure, observation of availability of supplies and equipment. Examples of indicators obtained in this way are: whether provider follows infection control procedures properly; whether providers perform technical services according to standard guidelines; the number of types of contraceptive methods available at the clinic; whether complete and accurate information is given to clients in counseling sessions.

7. Provider Survey (PS)

Service providers are interviewed or complete a questionnaire. Examples of indicators which may be obtained in this way are: whether provider has correct and up to date knowledge; whether provider receives periodic in-service training; whether provider is familiar with clinic standards and guidelines.

How Are Indicators Developed?

Indicators may be developed by consulting existing expert sources or by measuring key CPP center quality characteristics.

- **Existing Expert Sources**

There are many sources of indicators that are used widely to measure input, process and outcome for a variety of health care services. Standards are often used as a source for developing indicators.

- **Base Indicators on Key CPP Quality Characteristics**

Indicators can be drawn from existing program standards and already-identified key quality characteristics. First determine whether input, process or outcome indicators are best to measure the key quality characteristics. Often a combination of these factors is most effective. Then, define a measurable aspect of the key quality characteristics. (Indicators need to be expressed as a number so that they are measurable. Decide if the indicator will be calculated as a count, rate, or an average.) Finally, pretest the indicator to determine if it is reliable and valid.

What Makes A Good Indicator?

Criteria for Good Indicators **WHO 1994**

1. Indicators should be measurable or quantifiable with developed and tested definitions and reference standards.
2. Indicators should be readily available from existing data sources or obtained on a regular basis at low cost.
3. Indicators should be valid, that is they should actually measure the phenomenon they are intended to measure.
4. Indicators should be reliable, that is they should produce the same results when used more than once to measure precisely the same phenomenon.
5. Indicators should be clear.
6. Indicators should be realistic and applicable.
7. Indicators should be specific and measure only the phenomenon they are intended to measure.
8. Indicators should be sensitive, and reflect changes in the state of the phenomenon they reflect.

How to determine which indicators to monitor?

When deciding what measures to use it is important to consider what information is available. Often indicators are set that require information that is not easily available, may be inaccurate or may be very costly to obtain. It is important to look at the tradeoffs between accuracy of the data which is collected, and the cost of collecting it. All possible sources of data should be considered in order to decide which offer the best information in the most cost-effective manner.

How many indicators are required?

Indicators are only developed for key inputs, processes and outcomes and only for the quality characteristics of interest. Each standard will have at least one indicator, however one indicator may be used for more than one standard. Standards will sometimes be defined so clearly that only one indicator is needed. However, if a standard is more broadly defined, more than one indicator may need to be collected. After indicators have been identified, a data collection and monitoring program needs to be developed.

Components of a monitoring program

- Identifying sources of data
- Determining methods for collecting data
- Determining the sample
- Developing or adopting a data collection instrument
- Determining who will be responsible for data collection and analysis

- The frequency of data collection
- The type of data analysis.

Each existing source of data will have its strength and weaknesses, so you may need to use several sources to collect the necessary information. Assess the data source for completeness, accuracy and relevance. If there is missing information in one data source, it may be available from another source. Decide what can be modified, or how the data can be made more complete and accurate.

Determine the method for data collection: Determine how to collect the necessary information to complete the measurement. The common methods for collecting data are listed on pages 37 , 39

Determine at what level you need to collect data: There are three possible levels of data collection; manager, provider, and client. These levels are interrelated. Since a number of indicators can be measured at two or even three levels, it is important to identify the level at which each indicator is most significant. In most cases, this will be the client level. If results are satisfactory at the client level, this suggests those managers and providers are performing well. If deficiencies are found at the client level, it is important to assess first the adequacy of provider services and then center management in order to identify the source of the problem.

Determine the sample: For some indicators, it may be desirable to review all of the data. For others a sample of the data may be sufficient (either systematic, stratified or simple random sample).

Develop or adopt a data collection instrument: Once the source of data, the method for collection and the sample are identified, design or adopt an instrument for collecting the data. For example, this may take the form of a questionnaire. The instrument needs to be simple, clear and easy to understand.

Identify frequency of data collection: Data can be collected continuously or periodically. Most indicators are collected continuously in an ongoing manner. For example, reviews of existing data can be done easily on a continuous basis. Some data are collected periodically in the form of surveys.

Identify who is responsible for collecting data: Identifying the individual who is responsible for collecting the information may depend on the data to be collected, and on the organization and its staff. However, the individual should be sufficiently knowledgeable about the activity that they can collect reliable, unbiased information.

Prioritizing indicators: USAID Center for Development Information and Evaluation (CDIE) and others have suggested several criteria to consider in choosing among performance indicators at the program level.

1. Is the indicator oriented toward the targeted results (objective) and is it at the right level?
2. How available is the information? At what frequency and from what sources? What is the quality of the data? Data should be easy to measure, reliable and valid.
3. How comparable are the results to the indicator?
4. How responsive to change is the indicator?

Guide to Using Indicators

I. Identify a limited number of indicators that are consistent with program objectives.

It would be very unusual for a program to use all the indicators for a given topic to evaluate its program. Rather, it is important to choose a limited number that best "fit" with the program/project objectives. Here are some steps for identifying a short list:

- **Write down the objectives** of the programs/project. (That is, what results do you expect in the short term, such as 1 year or in the medium term 2-5 years?)
- **Specify the main activities** to be conducted.
- **Clarify** whether the program is:
 - (a) a large scale effort to reach all members of the target population;
 - (b) a smaller, more limited intervention that will reach only those who participate in specific services or educational programs. If (b), then select only from the indicators listed in the policy and output categories, The outcome indicators generally will not be feasible to measure.
- Define the main purpose of the evaluation; 1) to improve the program, 2) to track and document results, or 3) both.
- Review the summary list of indicators and identify all indicators that correspond to the objectives of the program and the purposes of the evaluation.

2. Identify the types of data /data collection needed for each indicator.

- For each indicator selected, specify the sources of data needed.
- Determine in each case if the data exists (surveys, records), or if it would be necessary to collect new data (interviews with staff, clients, or household surveys).

3. Construct and complete a matrix to determine the importance of each possible indicator and how it could be collected. (See figure below.)

Ease/Importance of Data Collection

Note possible indicators, importance of each indicator, and ease of obtaining the data.

	Easy *	Feasible /Requires Effort **	Difficult ***
Illustrative table for classifying indicator in terms of importance and ease of data collection	A. High priority	B. Worth collecting if possible	C. Worth collecting if possible
	D. Worth collecting only if part of instrument for important indicator	E. Worth collecting only if part of instrument for important indicator	F. Low priority

* **Data that are easy to collect are** data that are routinely collected by the program and available for analysis.

** **Data that are feasible to collect, but require effort** describe new data collection that is within the technical capability of the institution if resources are available for this purpose.

*** **Data is difficult to collect if** technically qualified staff are not available, the type of information needed is difficult to obtain, or the study population is geographically inaccessible or located in politically unstable area.

4. Prioritize the indicators by importance and ease of obtaining data.

- Give high priority to those that are important and can be (relatively) easily measured (cell A of table).
- Give lower priority to those that are judged to be less important and difficult to measure (cell F of the table).
- Discuss the **advantages/disadvantages** as well as the practicality of the remaining indicators (cells B, C, D, and E).
- Consider **the "questionable" indicators** (in cells B and C, versus D and E). Indicators in cells B and C are usually worth measuring. If they are of high priority to the program every reasonable effort should be made to measure them, including developing a mechanism for institutionalizing their collection over the long term.
- If those indicators in cells D and E can be obtained from the same data collection exercise as the high priority ones (cell A), this may favor including them. If, to the

contrary, it would mean a new data collection exercise (e.g. conducting focus groups to get a single indicator) it may not be worth it.

5. Group these indicators by source of data to determine the number of different linkages that would be required if all were retained. Following are the principle data sources:

- Service statistics
- Program administrative records
- Survey of target group in the general population
- Survey of clients
- Survey of providers
- Observation

Each source of data that is required for a given set of indicators will mean a separate data collection activity. Early planning is necessary in assembling indicator values to ensure that the various data sources generate the values when needed, including at baseline. Usually indicator systems are information systems which forge the linkage across data collection activities.

6. Decide what your organization is able to do given:

- Staff resources/expertise
- Logistical requirements (transport, printing, computers)
- Time
- Budget.

In sum, it is important to establish the objectives of the program, to define the main purposes of the evaluation (to improve the program, to document results, or both) and to select indicators that are relevant and practical. Some evaluations (e.g. those designed to identify ways to improve the program) may use program-based measurements only. Others may combine program and population-based data, or rely on population-based measures only. The technical decisions will depend on the resources available and purpose of the evaluation. Ideally program indicators will show that trends in program effort and population outcomes are moving together in the expected fashion.

Applying the Bruce Framework

In the following list, the indicators are categorized according to the six elements of the Bruce Framework as outlined at the beginning of this chapter. They are presented in chronological sequence (i.e the order in which they would be expected to happen in a service delivery setting) For consistency, the indicators have been worded in the positive sense (e.g. client receives his/her method of choice). However the data collection

instrument to be developed from these indicators should use neutral wording that gives equal weight to a positive or negative response. The following list also notes the most common method of collection for each type of data. These indicators will enable CPP managers to have examples of the most common indicators and the most appropriate data collection methods for each.

Elements/Indicator	Data Collection Approach
1. Interpersonal relations: Indicator - Client reports feeling : i. Welcomed by staff ii. At ease asking questions iii. Treated with respect and Politeness by providers	CS, EI, FG
2. Choice of method: Indicator - Number of methods Approved for use in the center	AR
1. Information given to clients: Indicator - Provider gives accurate and unbiased overview of all methods	OB, PS
2. Technical competence: Indicator - Clinical Providers have received training relevant to the job	AR, PS
3. Mechanisms to ensure continuity: Indicator - Provider encourage client to return as needed	OB, EI, CS, FG
6. Appropriateness and acceptability of services: Indicator - Clients and non-users Perceive that: i. Privacy/confidentiality for counseling is acceptable. ii. Privacy/confidentiality for exam is acceptable. iii. Waiting time is acceptable. iv. Hours/days are convenient. v. Staff is acceptable in terms of gender., ethnic group, age.	CS, EI, FG
7. Outcomes Indicators - Number of new acceptors/ Continuing users	AR

Data collection method key

AR - Administrative Records
CS - Client Survey
CR - Client Record
PS - Provider Survey

EI - Exit Interview
FG - Focus Group
OB - Observation

Suggested Indicators for CPP Centers

I. Management Function Indicators

I.1. Receiving clients

Percentage of clients reporting satisfaction about the reception service.

I.2. Filing system and medical records

Percentage of records accurately and correctly filled.

I.3. Maintenance of building and equipment

Inventory of non- functioning equipment.

I.4. Supply and inventory

Percentage of stock out for each single item during the last month.

Did the storage process adhere to storage guidelines?

I.5. Communication

Presence of at least one functioning telephone line, fax, e-mail.

I.6. Follow-up and appointment system

Percentage of clients attending according to their appointment.

I.7. Referral system

Percentage of referred cases according to the referral system.

Number of confirmed referrals.

I.8. Time management

Percentage of activities performed according to the time frame of the yearly work plan.

I.9. Monitoring and evaluation

Number of opportunities for improvement discovered by using monitoring and evaluation activities.

I.10. Health education

Presence of a written work plan for health education.

Are educational activities conducted according to the timetable?

I.11. Infection Prevention

Percentage of staff members following infection prevention guidelines.

II. Antenatal Care Indicators

II. 1. Client Record Indicators

Percentage of completely filled records.

II. 2. Clinical Indicators

Percent of RH negative clients who had indirect test done.

Percent of clients discovered to be anemic.

Percent of positive VDRL tests.

Percent of high risk pregnancies discovered according to Coopland form.

Percent of fetal or placental abnormalities discovered by ultrasound.

Percent of clients who received and used iron and folic acid supplements after 16 weeks gestation.

II. 3. Follow-up and Referral Indicators

Percent of clients who attended at least five times for ANC service over three trimesters.

Percent of feedback notes returned after referral.

III. Postnatal Care Indicators

III. 1. Client Record Indicators

Percent of client records completely filled.

III. 2. Clinical Indicators

Percent of clients with complications. (Complications defined as those cases requiring referral or intensive follow-up.)

Percent of clients receiving family planning counseling.

Percent of clients who are family planning acceptors.

Percent of clients who are family planning defaulters.

III. 3. Follow-Up and Referral Indicators

Percent of women giving birth at CPP-affiliated hospital, returning for post-natal care.

IV. Well Baby Clinic Indicators

IV. 1. Client Record Indicators

Percentage of individualized health records correctly completed.

IV. 2. Clinical Indicators

Percentage of neonates with complications detected. (Complications defined as those cases requiring referral or intensive follow-up.)

IV. 3. Follow-Up and Referral Indicators

Percentage of neonates born in CPP-affiliated hospital that return for well-baby care.

Total number of referrals made.

V. Family Planning Clinical Indicators

V. 1. Client Record Indicators

Percentage of correctly completed family planning clinical records.

V. 2 Clinical Indicators

Percentage of providers receiving clinical training.

Percentage of providers performing clinical procedures according to guidelines.

Percentage of clients reporting complications.

V.3 Follow-Up and Referral Indicators

Percentage of acceptors returning for two or more follow-up visits.

VI. Family Planning Counseling Indicators

VI. 1. Client Record Indicators

Percentage of correctly completed counseling records.

VI. 2. Counseling Indicators

Percentage of formally certified counselors.

Percentage of providers following the GATHER method.

Percentage of counseling rooms fully equipped with flip charts, models, brochures, product samples, videos and counseling bags.

Percentage of clients satisfied with privacy and comfort of the counseling area.

Percentage of clients reporting satisfaction with counseling process according to the

VI. 3. Follow-Up, Referral Indicators

Percentage of clients who have been counseled and discontinued chosen method within three months.

Chapter Four

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Job Description

JOB DESCRIPTIONS

Definition of a Job Descriptions

A job description outlines employee's tasks, responsibilities and authorities. It also describes what skills and qualifications are necessary to do the work.

The Importance of Job Descriptions

- **Hiring** - to ensure that the person who is hired has the necessary qualifications.
- **Training** - to identify the training needs of employees by noting the discrepancies between the qualifications needed for a position and the employee's actual capabilities.
- **Orientation** - to help the new employee understand what is expected of her or him.
- **Supervision** - to help the employee's supervisor monitor her or his performance regularly.
- **Performance evaluation** - to help the supervisor to review systematically the employee's performance on all assigned tasks.
- **Workplace coordination** - to help the manager ensure that all the necessary tasks are being assigned to the right employee, and that no two employees are inadvertently assigned to the same task.
- **Contract obligations** - to meet legal requirements in many countries, the job description must be attached to the work contract.

Tools and Techniques

Essential Elements of a Job Description

Job Title	Standard title for the person doing the work or job
Date	Date of the most recent revision of the job description
Grade	(if appropriate)
Department	Name of department or division
Reports to	Title of supervisor
Job Summary	Brief summary of the main job function(s) (one or two sentences long)
Job Responsibilities	A detailed description of all the activities for which the employee is responsible. For complex jobs, it helps to divide this section into categories.
Qualifications	Description of skills and qualifications required for the job
Attitude and Personal Qualities	A description of attitudes and personal qualities important for success in the job

Staff who should have job descriptions include the following:

- 1- Manager
- 3- Physicians in family planning, postnatal, antenatal clinics
- 3- Physicians in well baby clinic
- 4- Staff nurse
- 5- Midwife
- 6- Practical nurses in family planning clinics
- 7- Practical nurse in antenatal clinics
- 8- Practical nurse in well-baby clinics
- 9- Counselor
- 10- Receptionist
- 11- Maid

JOB DESCRIPTION CPP CENTER MANAGER

Job title : Center manager
Date : 22/2/1998
Department : CPP Center
Report to : CPP Project Director and Hospital Director
Job summary : Manages all center activities and works as clinician

Tasks, Duties and Responsibilities:

- 1- Responsible for all daily activities in the center.
- 2- Supervises and monitors all staff.
- 3- Acts as liaison between CPP management office and hospital.
- 4- Works as a clinician in the center.
- 5- Supervises and monitors activities of the center including antenatal, postnatal, family planning, well baby care and counseling.
- 6- Responsible for logistics and commodities management.
- 7- Responsible for training activities and continuing education.
- 8- Responsible for MIS records.
- 9- Responsible for information and communication.
- 10- Responsible for monthly report to CPP project director.
- 11- Evaluates all activities regularly.
- 12- Member of the quality improvement team.

Qualifications : MD in Gyn /Ob or family physician general practitioner with 10 years experience with special training in management and family planning.

Attitude and Personal Qualities: Friendly, open-minded, collaborative, committed and fair.

JOB DESCRIPTION A DOCTOR IN CPP

- Job Title** : Ob/Gyn or family doctor or trained general practitioner with 5 years experience in family Planning, postnatal and antenatal care.
- Date** : 22/2/1998
- Department** : CPP center
- Reports to** : CPP Center Manager
- Job summary** : Provides antenatal, postnatal and family planning care.

Tasks, Duties and Responsibilities:

A) Antenatal care:

- 1- Fills records as indicated.
- 2- Performs physical examination of clients.
- 3- Identifies high-risk pregnancies and follows-up.
- 4- Performs sonographic examination once each trimester.
- 5- Provides health education for clients.

B) Postnatal Care

- 1- Performs postnatal examination.
- 2- Completes records as indicated.
- 3- Performs breast examination.
- 4- Performs Pap smear.
- 5- Provides health education for postnatal clients including nutrition, lactation, hygiene, physical exercise and family planning.

C) Family planning

- 1- Maintains client files as indicated.
- 2- Provides the IUD, Norplant , pills of all types , DMPA and other contraceptive methods.
- 3- Refers clients who choose surgical method.
- 4- Manages side effects of contraceptives.
- 5- Manages infection prevention measures.
- 6- Counsels clients.

Qualifications:

- 1- Board certified in OB/GYN, family medicine general practitioner with 5 years experience in family planning.
- 2- Special training in contraceptive technology.
- 3- Special training in counseling.

Attitudes and Personal Qualities: Competent, enthusiastic, friendly and committed.

JOB DESCRIPTION

DOCTOR IN WELL BABY CLINIC

Job title : Pediatrician, family doctor or general practitioner with 5 years experience in family planning
And well baby care

Date : 19/2/1998

Department : CPP Center

Report to : CPP Manager

Job Summary : Well baby care

Tasks, Duties and Responsibilities :

- 1- Performs general physical examination with particular attention to early detection of congenital abnormalities.
- 2- Monitors growth and development profile.
- 3- Provides education about nutrition , lactation and vaccination.
- 4- Refers Clients to MCH centers.
- 5- Member of center quality improvement team.

Qualifications : Board certified or eligible in pediatrics, board certified or eligible in family medicine or general Practitioner with special training in well baby care .

Attitude and personal Qualities: Friendly, cooperative and committed .

JOB DESCRIPTION STAFF NURSE

Job Title : Staff Nurse

Date : 12/98

Department : CPP Center

Reports to : CPP manager

Job summary : Supervision of nursing staff and management of commodities:

Tasks, Duties and Responsibilities:

- 1) Supervises the nursing staff.
- 2) Responsible for ordering and managing the supplies.
- 3) Responsible for storing supplies in a well-ventilated storeroom with special attention to production and expiry date.
- 4) Shares in health education program.
- 5) Shares in continuous education for nursing staff.
- 6) Responsible for distribution of daily work to the nursing staff.
- 7) Supports family planning services.

Qualification: Nursing diploma and 5 years experience in family planning center or hospital care.

Attitude and Personal Qualities : Competent, open minded, fair and committed.

JOB DESCRIPTION MIDWIFE

Job title : Midwife

Date : 26/2/1998

Reports to : Staff nurse

Job summary : Assisting providing PNC and Family Planning

Tasks , Duties and Responsibilities

- 1- Counsels of clients for Family Planning.
- 2- Participates in Health education.
- 3- Participates in continuous education for nursing staff.
- 4- Helps maintain medical/surgical instruments.
- 5- Replacement for staff nurse during her absence

Qualification: Diploma in midwifery and 5 years experience in hospital.

Attitude and Personal Qualities : Cooperative, friendly, committed and open minded

JOB DESCRIPTION

PRACTICAL NURSE IN FAMILY PLANNING CLINIC

Job Title : Nurse for Family Planning and Postnatal Clinic

Date : 12 -2-1998

Department : CPP Center

Report to : Midwife

Job Summary : Assisting in service delivery at F.P and P.N Clinic

Tasks, Duties and Responsibilities:

- 1- Fills the records of clients as indicated.
- 2- Takes vital signs and records them (temperature, blood pressure, pulse).
- 3- Takes weight and height of the clients.
- 4- Prepares the clients for physical examination.
- 5- Assists the physician in IUD insertion and removal and Norplant insertion and removal.
- 6- Provides DMPA injections and other contraceptive methods.
- 7- Decontaminates, cleans, and packs instruments. Sterilizes them.
- 8- Disposes of waste products.
- 9- Participates in health education.
- 10- Responsible for equipment in clinic.
- 11- Member of quality improvement team.
- 12- Helps implement infection prevention measures.

Qualifications: Secondary certificate and training courses in nursing. Five years experience in family planning clinics.

Attitude and Personal Skills: Friendly, cooperative, enthusiastic and committed .

JOB DESCRIPTION

PRACTICAL NURSE IN ANTENATAL CARE

Job title : Nurse in Antenatal clinic

Date : 19/2/1998

Department : CPP head office

Report to : Midwife

Job summary : Assisting in service delivery in ANC clinic

Tasks, Duties and Responsibilities:

- 1- Fills the first page of antenatal charts.
- 2- Takes vital signs, weight, height and records them in records.
- 3- Checks urine for protein and sugar.
- 4- Prepares the client for physical examination and sonography.
- 5- Conducts fetal monitoring, and non stress test, electrocardiography as needed
- 6- Decontaminates, cleans, packs and sterilizes instruments.
- 7- Prepares disposal of waste materials.
- 8- Participates in health education.
- 9- Member of quality improvement team.

Qualifications: Secondary certificate and training courses in nursing and counseling.

Attitude and Personal Qualities: Friendly, cooperative and committed.

JOB DESCRIPTION
PRACTICAL NURSE IN WELL BABY CLINIC

Job title : Practical Nurse
Date : 26/2/1998
Department : CPP clinic
Report to : Staff Nurse
Job summary : Assisting in service delivery in well baby clinic

Tasks, Duties and Responsibilities:

- 1- Prepares the child for physical examination.
- 2- Takes weight, height, temperature and head circumference of the baby and recording them as indicated .
- 3- Shares in health education for the mother in breast-feeding and child care in general
- 4- Member of quality improvement team .

Qualifications: Secondary certificate and training courses in nursing, counseling, and well baby care.

Attitude and Personal Qualities: Competent, open minded and committed.

JOB DISCREPTION THE COUNSELOR

Job Title : Counselor

Date : 12/2/1998

Department : CPP center

Report to : The Manager

Job Summary: Counseling clients in family planning, antenatal, postnatal, and well-baby clinics.

Tasks, Duties and Responsibilities:

1. Fills the records of the clients as indicated.
2. Counsels the clients in family planning methods.
3. Teaches clients breast self examine.
4. Manages group counseling in the waiting area.
5. Responsible for IEC materials including T.V., videos and brochures.
6. Follows-up clients who discontinue a method.
7. Counsels clients for Pap-smears.
8. Gives appointments for the next visit.

Qualification : Secondary certificate, special training in counseling.

Attitude and Personal Qualities: Friendly, cooperative, enthusiastic, good skills in interpersonal communication, committed to family planning policy.

JOB DESCRIPTION RECEPTIONIST

Title : Receptionist

Date : 12/2/1998

Department : CPP Center

Report to : The manager

Job Summary : Reception, registration of clients, recording information and keeping files.

Tasks, Duties and Responsibilities:

- 5- Records clients arrival in files.
- 6- Greets the clients.
- 3- Types official reports of the center.
- 4- Member of center quality team.
- 5- Writes the names of clients and their number in the daily entry book
- 6- Gives appointments to the clients.
- 7- Keeps the files according to numbers and alphabetical order.
- 8- Enters all daily files in the computer.
- 9- Responsible for safety and security of computer records and furniture.

Qualifications: Secondary certificate and special training in computer and typing.

Attitude and Personal Qualities: Friendly, cooperative, good interpersonal skills and committed.

JOB DESCRIPTION THE MAID

Job Title : Maid in the CPP center

Date : 12/2/1998

Department : CPP Clinic

Report to : Midwife

Job Summary: Cleaning and dusting the offices in the center

Tasks, Duties and Responsibilities:

- 1- Opens
- 2- Cleans the center daily; floors, walls, and bathrooms.
- 3- Cleans the surrounding area of the center.
- 4- Takes care of the furniture during the cleaning process.
- 5- Cleans the kitchen daily.
- 6- Responsible for daily waste disposal.
- 7 - Closes the center after final cleaning.
- 8- Works as a messenger.
- 9- Member of center quality team.

Qualification: Literate.

Attitude and Personal Qualities: Friendly, committed and honest.

Matrix of Functions, Indicators and Data Sources

Matrix of Functions, Indicators and Data Sources Management Activities

Activity to be Measured		Indicator	Source of Data Collection	Method of Data Collection	Sample	Frequency	Person Responsible
1	Reception	% of client reporting satisfaction with reception process	Client	EI	Systematically selected sample	Every 4 months	Manager and Staff nurse
2	Filing system medical records	% of records accurately and completely filled	CR	CR review Direct Observation	Simple random sample	Every 4 months	Manager and Staff nurse
3	Maintenance of building and equipment	Amount of non-functioning equipment	1- CPP center 2- Register	DO Record review	All equipment and buildings	Every 4 months	Manager and Staff nurse
4	Supply and inventory	% of stock out of each single item the last day of the month. Were storage guidelines adhered to ?	1- CPP Center 2- Registers	DO AR	Simple random Sample	Monthly	Manager and Staff Nurses
5	Communication	Are phone, faxes, emails working?	CPP Center	DO	All Items	Every 4 months	Manager and Reception

EI : Exit Interview
 CR : Client Record
 DO : Direct Observation
 AR : Administrative Persons
 CS : Client Survey

(Management Activities continued)

Activity to be Measured		Indicator	Source of Data Collection	Method of Data Collection	Sample	Frequency	Person Responsible
6	Guidelines	% of Providers following clinical guidelines	CPP Staff	DO	All Staff	Monthly	Manager
7	Follow up and appointment system	% of clients attending according to their appointment	CR	CR	Systematically Selected sample	Monthly	Manager and Staff nurse
8	Referral system to (PMCH) center	% of referral cases according to the referral system % of confirmed referrals	CPP center referral forms	DO, CR	Simple random sample	Every 4 months	Manager and Staff nurse
9	Time management	% of activities performed according to the time frame of the yearly work plan	CPP Center Staff	DO, AR	ALL	Monthly	Manager and Staff nurse
10	Monitoring and evaluation	Number of opportunities for program improvement resulting from monitoring and evaluation activities	CPP Center and registers of the center	DO, AR	All	Every 4 months	Manager
11	Health education	Presence of written work plan for health education. Educational activities conducting to the time table.	AR	DO, AR	All	Every 4 months	Manager and Staff nurse
12	Sanitation	% of staff members following infection prevention guidelines	Center Staff	DO	All Staff	Continuous	Manager and Staff nurse

Matrix of Functions, Indicators and Data Sources
ANTENATAL CARE

Activity to be Measured		Indicator	Source of Data Collection	Method of Data Collection	Sample	Frequency	Person Responsible
1	Client record	% of completely filled records	CR	CR review	Total population	Every 4 months	Manager
2	Blood group and Rh	% of RH negative patient who had indirect	CR	CR review	Total population Rh-	Every 4 months	Midwife and nurse
3	Hemoglobin and hematocrit HC (or PCV)	% of discovered anemic patients during antenatal period	CR	CR review	Total population	Every 4 months	Staff nurse and Midwife
4		Number of positive tests.	CR	CR review	Total population	Every 4 months	Midwife and nurse
5	Obstetrical history physical and obstetrical exam	% high risk pregnancies discovered according to cooplant form	CR	CR+DO High risk registry book	Total population	Every 4 months	Manager and midwife
6	Treatment	% of clients who received and used iron and folic acid supplements after 16 weeks of pregnancy	CR	CR review CS	Total population	Every 4 months	Manager and Midwife
7	Ultrasound and fetal monitoring	% of discovered fetal or placental abnormalities by ultrasound	CR	CR review	Total population	Every 4 months	Manager and Staff nurse
8	Follow up	% of client who attended at least 5 times for ANC service during 3 trimesters	CR	CR review, DO	Total population	Every 6 months	Manager and Midwife
9	Referral	% of feed back notes returned after referral	Feed back notes register	CR review	Total referral population	Every 4 months	Manager and Midwife

POSTNATAL CARE

Activity to be Measured		Indicator	Source of Data Collection	Method of Data Collection	Sample	Frequency	Person Responsible
1	Client records	% of client records completely filled out	CR	CR review	Random sample	Every 4 months	Manager and Staff nurse
2	Clinical complications	% of clients with complications	CR, DO	CR review High risk registry book	Total population	Every 4 months	Manager and Staff nurse
3	Family planning counseling	% of clients receiving family planning counseling	CR	CR review	Random sample	Monthly	Manager
4	Family planning acceptors	% of family planning clients who are acceptors	CR	CR review	Random sample	Monthly	Manager
5	Family planning defaulters	% of family planning clients who default	CR	CR review	Random sample	Monthly	Manager
6	Follow up	% of women giving birth who return to CPP center for PNC	CR	CR review	Total population	Every 4 months	Midwife and Staff nurse

- **Complication = cases requiring referral or intensive follow up**

WELL BABY

Activity to be Measured		Indicator	Source of Data Collection	Method of Data Collection	Sample	Frequency	Person Responsible
1	Record keeping	% of individualized health records correctly completed	CR	CR review	Total population	4 months	Nurse and Midwife and Manager
2	Clinical complications	% of neonates with complications	CR, DO	CR review DO	Total population	Every 4 months	Nurse and Midwife
3	Follow up / Referral	% of neonates returning for well baby care	CR	CR review	Total population	4 months	Nurse and Midwife
4	Referrals	Total number of referrals made	CR	CR review	Total population	4 months	Nurse and Midwife

- **Complicators = cases requiring referral or intensive follow up**

FAMILY PLANNING CLINICAL FUNCTION

Activity to be Measured		Indicator	Source of Data Collection	Method of Data Collection	Sample	Frequency	Person Responsible
1	Record keeping	% of correctly completed clinical records	CR	CR review	Random sample	4 months	Manager and Nurse
2	Clinical training	% of providers receiving clinical training	AR	AR review	Total Staff	4 months	Managers
3	Clinical procedures	% of staff performing clinical procedures according to guidelines	DO	DO	Total Staff	Continuos	Manager
4	Clinical complications	% of clients reporting complications	CR	CR	Random sample	4 months	Nurse and Midwife
5	Referral / follow up	% of acceptors returning for 2 or more follow up visits	CR	CR review	Random sample	4 months	Nurse and Midwife
		% of confirmed referrals to MCH centers	Mother and Child health booklet	Collectuion of referral form from MCH directorate	All	4 months	CPP Management

- **AR Managers should train staff trainers + requiring training**

FAMILY PLANNING COUNSELING INDICATORS

Activity to be Measured		Indicator	Source of Data Collection	Method of Data Collection	Sample	Frequency	Person Responsible
1	Record keeping	% of correctly completed counseling records	CR	CR review	Random sample	4 months	Nurse and Midwife
2	Counseling staff	% of formally certified counselors	AR	AR review	Total Staff	4months	Manager
3	Counseling practice	% of counselors using Gather Method	counseling checklist	DO counseling Checklist	Total Staff	4 months	Manager
4	Counseling equipment	% of counseling rooms fully equipped with counseling materials	DO	DO	CPP Center	Continuos	Manager
5	Counseling client satisfaction	% of clients satisfied with privacy and comfort	Client satisfaction Questionnaire	Questionnaire	30 clients	4 months	Nurse and Midwife
6	Counseling clients satisfaction	% of clients reporting satisfaction with counseling	Client satisfaction Questionnaire	Questionnaire	30 clients	4 months	Nurse and Midwife
7	Follow up defaulters	% of clients discontinuing method within 3 months	CR	CR review	Total	4 months	Nurse and Midwife

Detailed Indicators List for CPP Centers

Detailed Indicators List for CPP Centers

I. Management Function Indicators

I.1. Receiving clients

Number or percentage of clients reporting satisfaction about the reception service.

I.2. Filing system and medical records

Number or percentage of records accurately and correctly filled.

I.3. Maintenance of building and equipment

Inventory of non- functioning equipment.

I.4. Supply and inventory

Number or percentage of stock out for each single item during the last month.

Did the storage process adhere to storage guidelines?

I.5. Communication

Presence of at least one functioning telephone line, fax, e-mail.

I.6. Follow-up and appointment system

Number or percentage of clients attending according to their appointment.

I.7. Referral system

Number or percentage of referred cases according to the referral system.

Number of confirmed referrals.

I.8. Time management

Number or percentage of activities performed according to the time frame of the yearly work plan.

I.9. Monitoring and evaluation

Number of opportunities for improvement discovered by using monitoring and evaluation activities.

I.10. Health education

Presence of a written work plan for health education.

Are educational activities conducted according to the timetable?

I.11. Infection Prevention

Number or percentage of clients who returned complaining of post procedure infections within 3 to 10 days.

II. Antenatal Care Indicators

II. 1. Filling client record

Number or percentage of completely filled records.

Number or percentage of non- completed and inaccurate records.

II. 2. Blood pressure (BP)

Number of client's BP taken and documented.

Number of diagnosed pathological BP.

Presence of protocols for BP measuring.
Number of blood pressures done according to the protocols.

II. 3. Body weight measurement

Number of functioning scales available in the center.
Presence of protocols for body weight measuring.
Number of documented body weights in the client's records.
Number or percentage of unusual body weight gain in second and third trimester.
Number of staff measuring body weight according to protocol.

II. 4. Lab tests

- Urine test for albumin
Percent of clients for whom tests for urine albumin were not taken at the initial visit
Percent of positive urine tests for albumin.

- Urine analysis (Microscopic and chemical)
Percent of Clients who had positive glycosuria.
Percent of clients who didn't have urine analysis done.
Percent of clients for whom bacteria ($>10^5$) was discovered.

- Blood group and Rh
Percent of Clients for whom blood group type and Rh was not examined.
Percent of Rh negative (Rh -) clients discovered.
Percent of (Rh-) Client who had indirect coomb's test done.

- Hemoglobin and hematocrit (PCV)
Percent of discovered anemic Clients.
Percent of clients for whom Hb and P.C.V were not done.

- VDRL Test
Number of positive tests.

II. 5. Obstetrical history

Percent of clients for whom obstetrical history was completely taken.
Percent of high-risk pregnancies discovered according to Cooplant form.

II. 6. General physical examination

Percentage of client's records that contain complete physical examination notes.
Percentage of clients who were correctly and completely examined physically.

II. 7. Obstetrical examination

Percentage of completely filled records concerning obstetrical examination.
Percentage of obstetrically complicated cases discovered.
Percentage of intrauterine death discovered among regularly attending Clients.

II. 8. Ultrasound and fetal monitoring

Ultrasound:

Percentage of clients who had ultrasound at:

- First trimester
- Second trimester
- Third trimester.

Percentage of discovered fetal or placental abnormalities by ultrasound.

Fetal Monitoring:

Percentage of clients for whom fetal monitoring had been done.

Percentage of clients for whom fetal monitoring test were done according to protocol.

II. 9. Follow-up, referral, and treatment

Follow-up:

Percentage of clients who attended ANC at least 5 times over three trimesters.

Percentage of defaulters (missed appointments).

Percentage of clients attended regularly in the first trimester.

Percentage of late bookers (after 24 weeks).

Referral:

Percentage of referred cases because of high-risk pregnancy.

Percentage of referred cases because of confinement.

Percentage of feedback notes returned after referral.

Treatment:

Percentage of clients who received iron and folic acid supplement.

Percentage of clients receiving other medication during pregnancy.

III. Postnatal Care Indicators

Number or percentage of women receiving PNC according to guidelines.

Number or percentage of completely and correctly filled records.

Number or percentage of clients who had complete and correct physical and Gynecological examination.

Number or percentage of mothers who received counseling for family planning service after delivery.

Number or percentage of women who returned for follow-up visits.

Number or percentage of cases that were admitted to the hospital or referred for further investigations.

Presence of protocols for postnatal care.

IV. Well Baby Clinic Indicators

- Number or percentage of babies seen according to protocols at well baby clinic up to 40 days of age.
- Number or percentage of neonates having their own records.
- Number of staff who follow procedures and guidelines at well-baby care services.
- Number or percentage of discovered abnormal cases.
- Number or percentage of correctly and completely filled records.

V. Family Planning Clinical Indicators

- Number or percentage of providers who have received clinical and counseling training.
- Written family planning guidelines provided and adhered to.
- Number of contraceptive methods approved for use at the service delivery point.
- Number or percentage of clients receiving their method of choice.
- Number of continuing acceptors.
- Number or percentage of providers giving accurate and unbiased overview of all methods.
- Number or percentage of providers giving accurate, relevant information on method accepted:
 - how to use
 - advantages and disadvantages
 - primary and secondary precautions
 - side effects.
- Number or percentage of clients who reported major complications after family planning procedures.
- Number or percentage of providers performing clinical procedures according to guidelines.
- Arrangements for supervision of service providers.

VI. Family Planning Counseling Indicators

Indicators for counselors

- Number or percentage of formally certified counselors.

Indicators for counseling area;

- Number of clients satisfied about privacy during counseling.
- Presence of comfortable area for counseling.
- Presence of audiovisual and print materials for counseling.

Indicators for counseling time

Number of clients counseled for more than ten minutes.

Number or percentage of clients who received complete information about contraceptive methods in the given time.

Indicators for clients

Number or percentage of antenatal clients who had counseling.

Number or percentage of postnatal clients who had postnatal counseling.

Number or percentage of family planning clients who had counseling

Number or percentage of new and old clients who received counseling.

Number of clients who are well informed about all methods of contraception.

Number or percentage of clients fully understanding chosen method (how to use, possible side effects, what to do if side effects occur, where and when to return for follow-up.)

Number or percentage of clients reporting respectful, polite reception by staff and responsive, informed answers to questions.

Indicators for counseling steps

Are the counseling steps **(GATHER)** followed?

Indicators for documentation of counseling

Number or percentage of clients having their own records of counseling.

Is the counseling record filled properly and completely?

Counseling out put

Number or percentage of clients reporting satisfaction about their counselors.

Number or percentage of clients who discontinued their chosen method within 3 months.

Number or percentage of clients who were satisfied with their chosen method.

Indicators for referral

Number of times when referral forms are out of stock.

Presence of counseling register for referral.

Number or percentage of clients referred to other centers because of non-availability of contraceptive method.

CPP Center Quality Goals

Quality Goals and Indicators
Indicators revision at workshop held in August 1998

<p>Goal One: To improve accessibility to and acceptability of a wide range of quality services in all CPP centers.</p> <p>Dimensions of Quality: 1- Accessibility 2- Acceptability</p>		
Key Improvements	Indicators	Instruments & Source
1. Improve appointment system	Percentage (%) of clients attending according to their appointment by type of service	MIS Registry booklet
2. Ensure functioning referral system	% of confirmed referred cases % of referred cases according to the referral system	MIS & Records MIS
3. Improve follow-up	% of clients who attended ANC clinics at least 5 times over 3 trimesters	MIS & Records
4. Improve the acceptance of services by clients	% of new users by type of contraceptive method % of clients who were satisfied with their chosen method	MIS & Records Client Satisfaction Survey
5. Improve interpersonal relations	% of clients reporting satisfaction with services	Client Satisfaction Survey

<p>Goal Two effective services.</p> <p>Dimensions of Quality: 1- Safety 2- Staff competence</p>		
Key Improvements	Indicators	Instrument & Sources
1. Ensure continuous maintenance of building and equipment	Number of non-functioning equipment	Equipment list
2. Prevent infection for both clients and providers	% of staff following infection control guidelines	Sanitation checklist
3. Improve staff technical competence	Number of trained staff who follow protocols	Provider skills checklist
4. Improve how counseling information is communicated	% of clients who received complete information about contraceptive methods	Counseling checklist

Goal Three : To ensure the best use of available resources to improve the quality of services.

Quality Dimensions : 1- Efficiency 2- Continuity

Key Improvements	Indicators	Instrument & Sources
1- Ensure continuous supply	Number or % of stock out for each single item during the last six months	MIS Administrative records
2- Improve storage conditions	Are storage guidelines followed?	Storage checklist
3- Improve the organization of services	% activities performed according to the time frame of the yearly work plan.	Administrative records

CPP Center Assessment Tool

CPP CENTER ASSESSMENT

**CPP Project
Pathfinder International
December 1997**

CPP Center Assessment
Person Conducting Interview and Observation:

I. General Background Information

Date of Visit:

Name of CPP Center:

Location (Governorate, City):

Type of Facility: MOH _____ RMS _____ NGO _____

Staff Interviewed:

This is an assessment tool to help collect information about resource availability, resource utilization and provider practice at the CPPs. Determining the minimum requirements for a health facility is a difficult task. There are no hard and fast guidelines. However, there are certain key functions of the facility which must be observed and there are standards which must be met in each function. By noting whether the facility meets or does not meet these criteria plans can be made to improve the quality of services offered. This assessment tool is divided into several sections, each of which contains the criteria which must be met to fulfill the standards adopted by the CPP Project. The sections are as follows:

- I. General Background Information
- II. Client Volume and Range of Services Provided
- III. Personnel
- IV. Observation of Record Keeping
- V. Observation of Rooms, Equipment & Commodity Storage
- VI. Observation of Training, Equipment & Supplies
- VII. Observation of Infection Prevention Practices
- VIII. Observation of Counseling Practices
- IX. Assessment of Provider Skills
 - Physical assessment
 - Method provision
 - Norplant implants
 - Injectables (3 month)
 - LAM
 - POPs
 - COCs
 - Condoms
 - IUD counseling and history
 - Interval IUD insertion
 - Postpartum IUD insertion
 - RTIS
 - Antenatal Care
 - Postnatal Care
 - Well Baby Care
- X. Observation of CPP Management

The suggested criteria for each area follow:

1. General Background Information

This section provides general information about the facility including its location.

2. Client Volume and Range of Services Provided

Client volume and range of services provided is a key area in determining whether a facility can serve as an adequate CPP Center or training institution. Having an insufficient client load is a common problem in clinical training. All trainees must have experience in the provision of all available methods. With a low client load, it will take longer for each trainee to gain the experience required to achieve competency in the method. There are no absolute numbers which can tell us if a facility has a sufficient client load to be used for training.

All clinical training should be competency based. In competency-based training, trainees must first master theoretical knowledge. Then anatomic models are used to provide experience in IUD insertion, minilaparotomy, and Norplant implant insertion and removal. Only after trainees have demonstrated competence using anatomic models are they allowed to continue their training. Trainees vary in the number of procedures they need to perform before they judge themselves or are judged by the trainer to be competent. Trainees usually feel they are competent to perform IUD insertions without supervision after only 3-4 insertions, while those receiving Norplant implant training say they usually feel confident after five insertions, but often need at least eight removals before feeling confident. The judgement of a skilled trainer is the most important factor when determining competence.

The following are the generally accepted requirements, by method which can be used to determine the required client load for a training center:

IUD (Interval)	5 insertions
IUD (Postpartum)	5-10 insertions (if required)
IUD (Postabortion)	5-10 insertions (if required)
Norplant Implant Insertion	6 insertions
Norplant Implant Removal	5-10 removals
Injectables	5 clients
COCs	5 clients

POPs	5 clients
Physical Exam (Ind. Pelvic, Breast exam)	5 exam for a physician, 5 exams for nurses or midwives
Counseling	5 clients

Note: Pathfinder International has adopted WHO requirements for Norplant implant and IUCD insertion and removal.

The facility should also be able to provide experience in other aspects of reproductive health care, such as the management of reproductive tract infections (RTIs), HIV/AIDS, Pap smears, and the use of lactational amenorrhea as a contraceptive method.

3. Personnel

Since some clinic staff will act as both trainers and preceptors (on-site clinical trainer). It is essential that staff members have had training in all aspects of reproductive health care as well as training as trainers and preceptors. The facility must have an adequate number of staff so that the additional burden of training does not disrupt services.

4. Recordkeeping and Treatment Protocols

Training facilities should serve as model facilities for trainees. Records must be accurate and complete. Any complications or deaths must be recorded and the information accessible. Client's records should be filed in a way that facilitates easy retrieval.

Training facilities must have treatment protocols or service delivery guidelines in place for each family planning method provided in the facility, as well as guidelines for all other aspects of reproductive health care.

5. Facilities, Equipment and Storage of Commodities

Training facilities will require dedicated spaces or rooms for a waiting area, private counseling area, private examination room, operating room, recovery area, training room, separate room for the processing of contaminated instruments, and an appropriate method for the disposal of medical waste. The facility must also have certain amenities such as electricity, running water, adequate lighting, and functioning sinks and toilets.

A sufficient supply of equipment for the provision of all reproductive health care services is also required. Commodities storage procedures and facilities must be adequate (see page 79-84) and all required contraceptive supplies must be in adequate supply.

6. Training Equipment

Equipment needed for training such as overhead and slide projectors, video player, whiteboard or blackboard, and anatomic models, must be available and in good repair. A knowledge- and skills-based training curriculum is also an essential component of clinical training.

7. Infection Prevention Practices

The training must meet absolute infection prevention standards. Guidelines for infection prevention procedures must be in place and all contaminated instruments must be processed according to the established protocol.

8. Counseling Practices

Client counseling is an essential component in the provision of reproductive health services. Counseling must be a standard training component and clinic staff must be adequately trained in counseling.

9. Clinical Skills

Since clinic staff will act as trainers and preceptors, their clinical skills must meet certain uniform standards. Key indicators (see page 88-92) of technical competence may be used to determine whether clinic staff need further training.

II. Client Volume and Range of Services Provided

Record the following reproductive health statistics for one month. If statistics vary greatly from month to month, provide an average of the last 6 months. Any additional comments or recommended actions should be noted in the "Comments/Recommendations" column.

Family Planning or Reproductive Health Service Provided	Number of clients in the last month	% of New users	Comments / Recommendations
Family Planning Services			
Combined Oral Pill			
Progestin-Only-Pill			
Injectables (DMPA)			
IUD (Interval)			
IUD (Postpartum)			
LAM			
Condoms / Spermicides			
Foaming Tablets			
Norplant			
Reproductive Health Services			
P. Natal			
Postpartum service			
Postpartum + FP			
Counseling for Family Planning			
Treatment for STD/RTI			
PAP Smear/Screening for cervical cancer			
Screening for Breast Cancer			
Antenatal Care			
Postpartum Care			
Infant Health Care			
Growth Monitoring			
Care of a Sick Child			
Immunization			
Pregnancy Test			
Ultrasound			
Referral			

III. Personnel

List personnel involved in the provision of services and the training they have received using the codes beneath the table.

(Manager, midwives, doctors, nurses, counselors, receptionist)

Rating : 0 Poor, 1 Average, 2 Good NA Non applicable

	# of Staff	# of persons trained	Type of Training	Rating
Doctors				
Nurse				
Midwives				
Receptionist				
Other				

1. Contraceptive technology clinical

- Injectable (DMPA)
- IUD (Postpartum)
- IUD (Interval)
- Norplant
- Oral Contraceptives
- Condoms
- Spermicides / Foaming Tablets

3. LAM

- 4. TOT : Training of Trainers**
- 5. TOT (counseling)**
- 6. TOT Trainees (Clinical)**

7. Management

- 8. MIS/Computer Skills**
- 9. Infection Prevention**
- 10. Reproductive Tract Infections**
- 11. Counseling**
- 12 Well Baby Care**

2. Contraceptive Technology theoretical

IV. Record Keeping

Record keeping	Rating	Comments Recommendations
Is there a staff member available to do data entry?		
Waiting time in reception does not exceed 5 minutes.		
Is a medical record used in the clinic?		
Are client booklets available?		
Do clients bring the booklet with them?		
Is there a system for filing clients' record and retrieval (CMIS)?		
Are the required data entered by the end of each day?		
Are the following records accurate and complete? *		
• CPP Project client card		
• Referral form		
• Postpartum IUD form		
• Appointment system is functioning		
Is there a registration book?		
Are the collected data analyzed?		
Is the data analysis reported back to the center manager by CPP management?		
Are complications related to contraceptive use reported?		
Are treatment protocols or service delivery guidelines available?		
Are the data being sent to the CPP Project Office?		
Is the CPP center collecting referral papers on a monthly basis?		

* Take a random sample of 20 records from records archives

V. Room Equipment& Commodity Storage

Room	Rating	Comments / Recommendations
Waiting Room area with seating for all clients		
Private counseling area		
Private antenatal examination room		
Private postpartum examination room		
A designated sink for cleaning instruments		
An appropriate method for the disposal of medical waste		
Training Room(for training center)		

Does the site have	Rating	Comments / Recommendations
Sign with CPP working hours		
Is electricity functioning		
Running water		
Functioning sink in examination rooms/area		
Adequate lighting		
An adequate supply of drinking water		
Telephone/fax/e-mail		
Toilet for clients		
Storage space for contraceptives		
An inventory of equipment is maintained		
Hot air oven or autoclave		
IUD insertion/removal kits available		
Norplant implant insertion/removal kits		
Needles (gauge 18-24)		
Syringes (2,5, and 10 cc)		
Thermometer		
Vaginal Specula (small, medium, large)		
Sherman curette		
Curved Hemostat		
Sponge holding forceps		
Tenaculam		
Uterine Sound		
Table		
Chairs		
Wastebasket		
Cotton		
Gauze		
Pap smear spatula		
Swabs		
2% pethadine		

Does the site have	Rating	Comments / Recommendations
Alcohol 95%		
Plaster		
Lubricants		
Reagents		
Privacy Screen		
Linens		
Drapes		
Gloves		
Analgesics/Sedatives / spasmolytic		
Dextrose & venoclisis equipment		
Antiseptics		
Lidocaine 1%		
Rotating Stool		

Mark contraceptive stock-outs with a "0" in the appropriate "Rating" box

Is there an adequate:	Rating	Comments / Recommendations
Inventory of equipment and commodities		
Storage system according to commodity expiration dates		
System for ordering (reordering) supplies		
Is the storage facility protected from damage by:		
Rain		
Sunshine		
Rats and pests		

Physically check and perform a rough count of the total number of contraceptives in stock in the storeroom for each method supplied, and note the number below, along with any other comments or recommendations.

Contraceptive Method	Quantity in Stock	Rate	Comments Recommendations	No. of stock out in the last 6 month	Rate
Combined Pills					
Progesterone-only Pills					
Condoms					
Spermicides					
IUDs					
Injectables					
Norplant					

Describe the flow of contraceptives both in and out of the following facilities, as well as any comments or recommendations below.

	How method comes in	How method goes out	Comments / Recommendations
Storage Room			
Out Client Room			

. **Observation of Training Equipment and Supplies (for Training Centers Only)**

Does the FP site have functional:	Rating	Comments / Recommendations
Overhead projector		
Slide projector		
Projection screen		
Television		
VCR		
Video cassettes for training (include number and variety)		
Black board or white board		
Training curriculum		
Pelvic model		
Handheld uterine models		
Postpartum uterine models		
Breast models		
Norplant training arm		

. **Observation of Infection Prevention Practices**

Task	Rating	Comments / Recommendations
Decontamination		
0.5% chlorine solution available		
Wears rubber gloves		
Places <u>all</u> instruments in chlorine solution for 10 minutes immediately following procedure		
Mixes chlorine solution correctly		
Wipes down exam table with chlorine after each use		
Cleaning of instruments		
Completely disassembles instruments and/or opens jaws of jointed items		
Washes <u>all</u> surfaces with soap and water and a brush or cloth until visibly clean		
Thoroughly cleans serrated edges		
Rinses all surfaces with clean water		
Wears rubber gloves		
Cleaning equipment & supplies available		
Chemicals		
Prepares fresh solution		
Immerses items completely		
Rinses items with boiling water		
Stores items in an HLD container		
Sterilization		
Autoclaving		
Wraps instruments		
Arranges packs loosely in autoclave		
Puts holes in drums in open position		
Sterilizes for 30 min. for wrapped items at 121°C (250° f) and 106 kPa (15 lbs/in ²)		
Stores items in a sterile container		
Dry Heat		
Puts loose instruments on trays		

Task	Rating	Comments / Recommendations
Begins timing after temperature has been reached		
Uses standard time/temperature 170° C (340° F) - 60 minutes 160° C (320° F) - 120 minutes 150° C (300° F) - 150 minutes 140° C (285° F) - 180 minutes 121° C (250° F) - overnight		
Stores items in a sterile container		
Chemical sterilization		
2% glutaraldehyde freshly made		
Soaks in covered container 8-10 hours		
Rinses items with sterile water		
Stores items in a sterile container		
Aseptic hand washing		
Soap available		
Clean towel available		
Staff wash hands correctly for 15 seconds with running water		
Staff wash hands between clients		
Barriers		
Linen is clean		
Paper or linen is changed between clients (if possible)		
Sterile gloves are worn between procedures		
Gloves are put on properly		
Gloves are disposed of properly		
Handling specimens		
Clean gloves worn when obtaining or handling specimens		
Spills of blood or other bodily products are cleaned up immediately with 0.5% chlorine solution		

• **Observation of Counseling Practices**

Task	Rating	Comments / Recommendations
Visual and auditory privacy is acceptable for counseling		
Uses language the client can understand		
Explains range of methods offered in the clinic		
Explores the client's opinion about FP methods		
Encourages the client to ask questions		
Provides information about all methods		
Describes benefits and risks		
Appropriate visual aids		
Tells client to return if s/he has any concerns		

Assessment of Provider Skills

Task	Rating	Comments / Recommendations
Physical assessment		
Provider makes client comfortable and gives feedback during and after the examination		
Privacy is ensured during examination		
Provider follows correct steps in conducting the physical examination		
Abnormal and normal findings are documented in client record		
Method provision		
For every method prescribed, guidelines are followed concerning:		
Indications or precautions noted from a client's history and physical examination		
The client's choice of method		
Instructions provided to the client on method use		
Information provided to the client about potential side effects		
Provision of supplies		
Client record documentation of method prescribed		
Norplant implants		
Provider informs client that menstrual pattern will change		
Provider informs client that implants should be removed after 5 years		
Provider informs client that implants can be removed anytime she desires		
Provider explains side effects which may occur		
Provider explains that client should return for follow-up visit or if she experiences any of the following: - pain or pus at the insertion site		

Task	Rating	Comments / Recommendations
<ul style="list-style-type: none"> - heavy bleeding - severe abdominal pain - expulsion of implants - delayed menstrual periods after long interval of regular periods - migraine headaches, repeated very painful headaches, or blurred vision 		
Provider takes a history for implant use which includes: <ul style="list-style-type: none"> - missed period - jaundice, liver disease - unexplained vaginal bleeding - breast lumps/cancer - breastfeeding under 6 weeks 		
Provider explains Norplant insertion/removal procedures		
During insertion procedure provider does the following: <ul style="list-style-type: none"> - washing hands - wears sterile gloves - cleans the arm with antiseptic solution - infiltrates the insertion site with Lidocaine and sodium bicarbe NaCo3 10:1 - inserts implants close to the skin (not deeply into the tissue) - palpates the implants upon completion of insertion - decontaminates instruments following procedure - washes his/her hands following the procedure 		
Injectables (3 month)		
Provider informs client that her menstrual pattern will change		
Provider explains that the injection must be given every 3 months		
Provider explains side effects which may occur		
Provider informs client about delayed return to fertility		
Provider explains that client should return for follow-up visit or if she experiences any of the following:		

Task	Rating	Comments / Recommendations
<ul style="list-style-type: none"> - weight gain of more than 2 kilos within one year - headaches - heavy bleeding - depression 		
Provider takes a history for use of an injectable including: <ul style="list-style-type: none"> - missed period - jaundice or liver disease - any abnormal or unexplained vaginal bleeding - breast lumps/cancer - diabetes - breastfeeding infant under 6 weeks old 		
While administering the injection the provider: <ul style="list-style-type: none"> - explains to client what she is doing - washes her hands prior to injection - allows client to choose injection site - gently shakes the vial - cleans the injection site with antiseptic - instructs client not to massage the site - inserts the needle deep into the muscle - washes her hands following the injection 		
<ul style="list-style-type: none"> - provider properly disposes of needle and syringe 		
COCs / POPs		
Provider informs client about how to use method		
Provider explains side effects which may occur		
Provider explains when client should return for resupply		
Provider explains that client should return for follow-up visit or if she experiences any of the following: <ul style="list-style-type: none"> - abdominal pain (severe) - chest pain (severe) - headache (severe), dizziness, weakness, or numbness - eye problems (vision loss or blurring), speech problems - severe leg pain (calf or thigh) 		

Task	Rating	Comments / Recommendations
Condoms		
Provider explains how to use the method		
Provider explains common problems with the use of condoms (including prevention of damage)		
Provider tells client where to obtain resupply of condoms and how to dispose it		
IUD Counseling and History		
Provider informs client that the Cu T380A can remain in place for 10 years		
Provider explains possible side effects of IUD		
Provider obtains medical history which includes : - an active, recent, or recurrent pelvic infection - pregnancy, known or suspected		
Provider explains IUD insertion/removal procedures		
Provider informs client that she should return for follow-up visit or if she experiences any of the following: - late period (pregnancy, spotting, or bleeding) - infection exposure or abnormal discharge - not feeling well, fever, or chills - string missing, shorter, or longer		
Interval IUD		
Position of the uterus is determined during bimanual examination		
Visualize vagina and cervix prior to insertion during speculum exam		
Tenaculum is applied to align the uterus		
Traction is applied to align the uterus		
A sterile sound is used to determine uterine depth and to check the position of the uterus		
IUD is loaded into applicator maintaining its sterility		
IUD is inserted using the withdrawal method for CU T380A		

Task	Rating	Comments / Recommendations
Pre- & post- instruction on IUD insertion given		
Post-use instruction and follow-up appointment		
Postpartum IUD		
Provider wears sterile gloves		
Provider checks to ensure complete expulsion of placenta		
Provider examines the cervix for injury		
<p>Manual insertion</p> <ul style="list-style-type: none"> - grips the IUD between index and middle fingers - places opposite hand on abdomen to stabilize uterus - within 10 minutes of placental delivery, inserts IUD to top of fundus - confirms fundal placement with both hands - rotates internal hand 15 degrees while removing to avoid dislodging IUD - inspects the vagina for strings (if visible, IUD is too low) 		
<p>Ring forceps insertion</p> <ul style="list-style-type: none"> - grasps IUD with ring forceps an angle (the top of IUD should be even with the tip end of forceps) - using hand or retractor, exposes and visualizes the anterior cervix - grasps cervix with another ring forceps - while retracting the cervix, introduces IUD through the cervix into uterus - releases retracting hand; places on lower abdomen - palpates and stabilize fundus with pressure on abdomen - advances IUD to the top of the uterine fundus - confirms placement with both hands - removes ring forceps, moving laterally to avoid dislodging IUD - inspects vagina for strings (if visible, IUD is too low) 		

X. CPP Center Management:

0 = Not available
1= Adequate
2= Good

Task	Rating	Recommendation
<ul style="list-style-type: none">• CPP Center work plan is present and being followed• Job descriptions available• Job description communicated to staff• Regular staff meeting• Information used for management• Information shared with staff• Is it pleasant to work at the clinic ? Why ?		

GENERAL OBSERVATION

Client Satisfaction Checklist

Client Satisfaction Questionnaire

Age _____ Years

Number of Pregnancies _____

Circle appropriate response below:

What level of education do you have?

1. No education
2. Primary incomplete
3. Primary complete
4. Secondary and more

Do you now use contraception?

1. Current user of contraceptive → → →
2. None user

What method?

- Methods use
- Pills
 - Condoms
 - IUD
 - Norplant
 - Injections
 - Foams, Jelly, Cream
 - Sterilization

1 = Disagree

2 = Agree

	Comments	Rating
Atmosphere / Environment		
1- Medical center was attractive/pleasant		
2. Medical center was clean		
3. Had enough privacy		
4. Easy to find way around		
Nursing Care		
1. Nurses could answer your questions		
2. Nurses were caring and compassionate		
Physician Care		
1. Doctor was caring and compassionate		
2. Doctor answered your questions		
3. Doctor spent enough time with you		
Communication		
1. Procedures were explained in advance		
2. Instructions were clear		
3. Understood how to use chosen method and side effects		
4. Client information package was helpful		

Open Question Instrument- Please answer all questions

Comments
1. What did you like most about your visit here today?
2. What did you dislike most about your visit here today?
3. Would you like to continue having services at this center ? Why ?
4. Would you recommend the center to your friends ?
5. Was the waiting time reasonable?
6. Were you able to freely select your contraceptive method?

Storage Checklist

CHECK LIST FOR PROPER STORAGE

This checklist should be used by managers to ensure that proper storage guidelines are being followed.

RATING

**0 - POOR
1- ADEQUATE
2 - GOOD**

	Rating	Recommendation
1. Room cleaned with whitewashed walls.		
2. No signs of roof leakage.		
3. No direct sunlight on supplies.		
4. Storeroom not subject to water penetration.		
5. Supplies stacked at least 4 inches (10cm) from floor (arrange dunnage of wood or steel).		
6. Supplies stacked at least 1 foot (30cm) from any wall.		
7. Separate stacks accessible for "First expiry first out" (FEFO), counting, and general management.		
8. Stacks not more than 8 feet high (2.4m).		

<p>9. Identification marks and other labels visible.</p> <p>10. Supplies to be issued by carton or box lot, if possible.</p> <p>11. Well-ventilated.</p> <p>12. Well-lighted.</p> <p>13. Fire extinguishers not blocked.</p> <p>14. Vaccines and sera stored in refrigerator.</p> <p>15. Old files, information material, office supplies, etc. stored separately.</p> <p>16. Insecticides and other chemicals not stored together with contraceptives and medical supplies.</p> <p>17. Storeroom disinfected and sprayed against insects every third month.</p> <p>18. Damaged and expired supplies separated and disposed of without delay.</p> <p>19. Store keys available at all times.</p> <p>20. Storeroom cleaned daily.</p>		
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Counseling Checklist, Clinical Protocols and Forms

Counseling Checklist

This checklist should be used by supervisors to monitor how effectively their staff is counseling clients on family planning options.

RATING 0 POOR
1 ADEQUATE - AVERAGE
2 GOOD

QUESTION	RATING	COMMENTS
- Was the client given an overview of all available and approved contraception methods?		
- Was the client informed about the benefits of family planning for her and her family?		
- Was the client informed about when and how to obtain more information and services for family planning?		
- Were clients informed about the advantages, disadvantages, side effects and warning signs of all contraceptives?		

- Were clients told how to get supplies?		
- Were clients given printed material about contraception? Were IEC materials used?		
- Were clients allowed to make an informed choice regarding their contraceptive method?		
- Were clients encouraged to ask questions or express concerns?		

Clinical Protocols and Forms

Clinical Protocols and Forms

1-	Coopland Form	II.a.5
2-	Symphysis Fundul Height Measurement	II.a.7.(1)
3-	Fundul Height	II.a.7.(2)
4-	Leopold Maneuvers	II.a.7.(3).a,b,c,d
5-	Referral Form	II.a.9.(1)
6-	APGAR Scoring Table	II.c.2.(1)
7-	Pediatric Weight Measurements	II.c.3.(1)
8-	Pediatric head circumference measurement protocol	II.c.3.(2)
9-	Pediatric Length Measurement Protocol	II.c.3.(3)
10-	Breast Examination Protocol	II.b.3.(1)
11-	Infection Prevention Protocol	
12-	IUD Protocol	
13-	Norplant Protocol	
14-	Injectables Protocol	
15-	Guideline for DMPA Counseling skills	
16-	Condoms	
17-	Combined Oral Contraceptives (COCs) protocol	
18-	Steps for COC Counseling	
19-	Progestagen only Pills (POPs) Protocol	

II.a.5

Coopland Form

High Risk Evaluation Form

Name: _____ Age: _____ Gravida _____ Para _____ Abortions _____

LMP: _____ EDC: _____ EDC by Ultrasound _____

Medical or Surgical

Reproductive history	Associated conditions	Present pregnancy
Age	Previous gyneco	Bleeding
< 16 = 1 ___	= 1 ___	< 20 weeks = 1 ___
16-35 = 0	logic surgery	> 20 weeks =3 ___
>35 =2 ___	chronic renal disease =1 ___	
Parity: 0 = 1		Anemia (< 10 g%) =1 ___
1-4 =0	Gestation diabetes = 1 ___	postmaturity =1 ___
>5 =2 ___	(^)	Hypertension =2 ___
Two or more abor - = 1 ___	class B or greater = 3 ___	premature rup - =2 ___
tions or history of	diabetes	ture of mem-
Infertility	Cardiac disease = 3 ___	branes
	Other significant = ___	Polyhydramnios = 2 ___
Postpartum = 1 ___	medical disorders	IUGR = 3 ___
Bleeding or	(score 1 to 3 according	Multiple pregnancy = 3 ___
Manual removal	to severity)	Breech or malpre - = 3 ___
		sentation
Child > 4 Kg = 1 ___		
Child < 2.5 Kg =1 ___		Rh isoimmunization = 3 ___
Toxemia or hy- = 2 ___		
pertension		
Previous Cesarean = 2 ___		
Section		
Abnormal or difficult =2 ___		
labor		
COLUMN TOTAL _____	_____	_____

Total Scores

(Sum of the three columns)

Low risk -- 0-2

High risk -- 3-6

Severe risk -- 7 or more

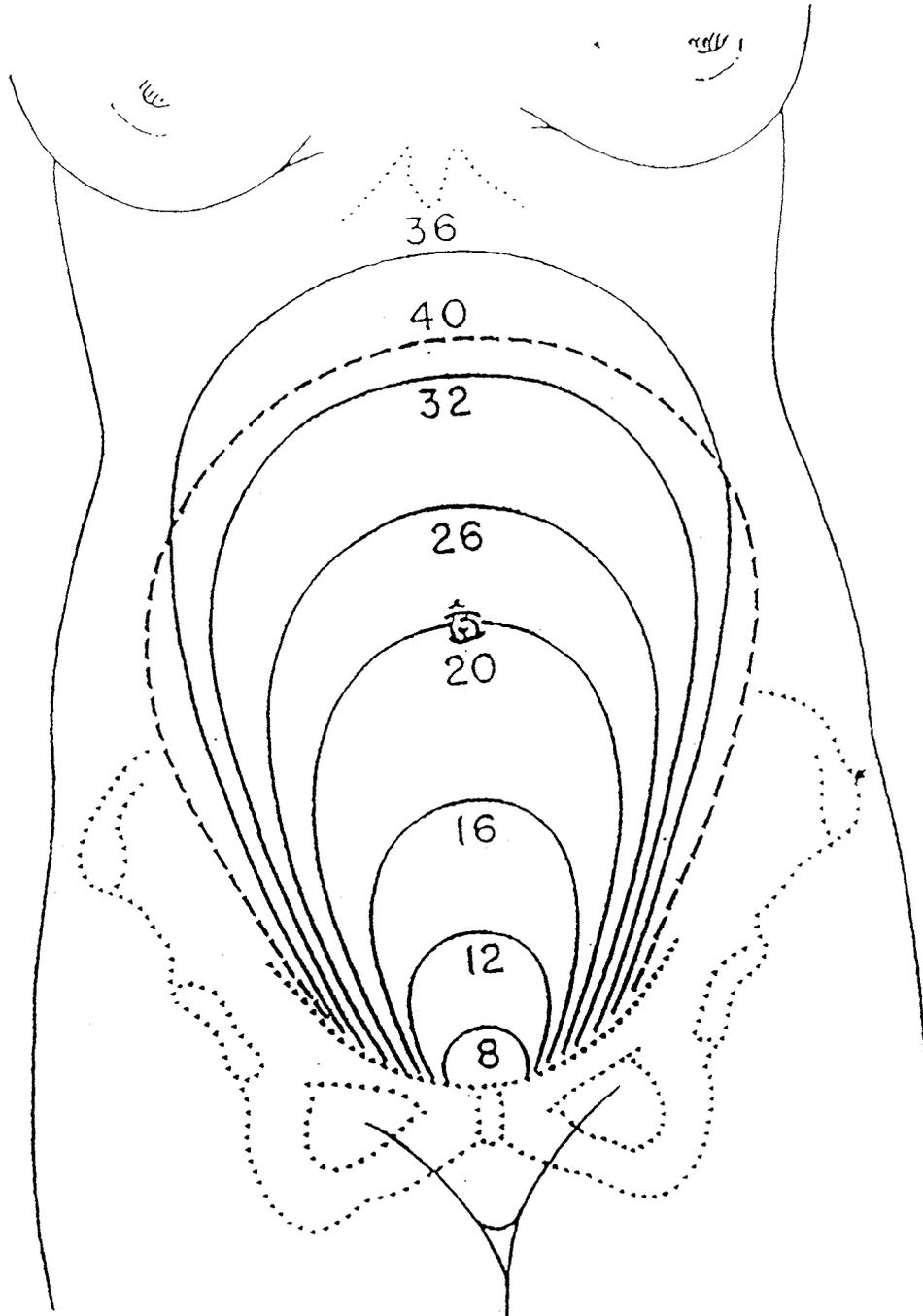
II.a.7 (1)

Symphysis Fundal height in Centimeter



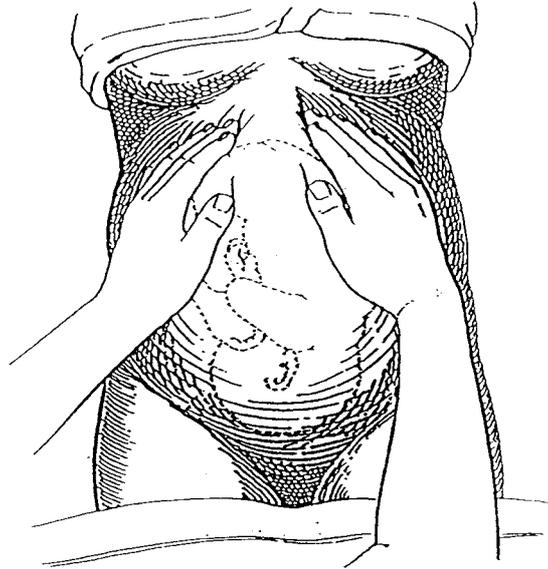
II.a.7 (2)

Fundal Level in Weeks of gestation



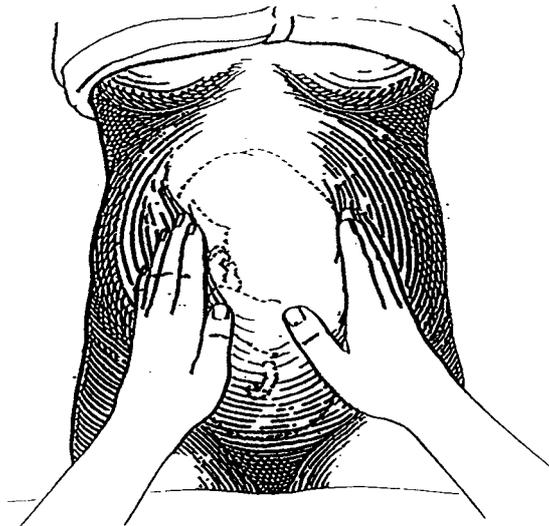
II.a.7.3 (a)

Leopold's Maneuvers



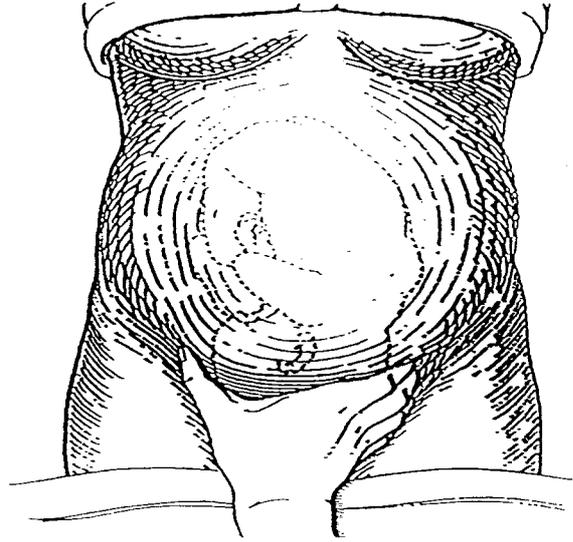
First

II.a.7.3 (b)



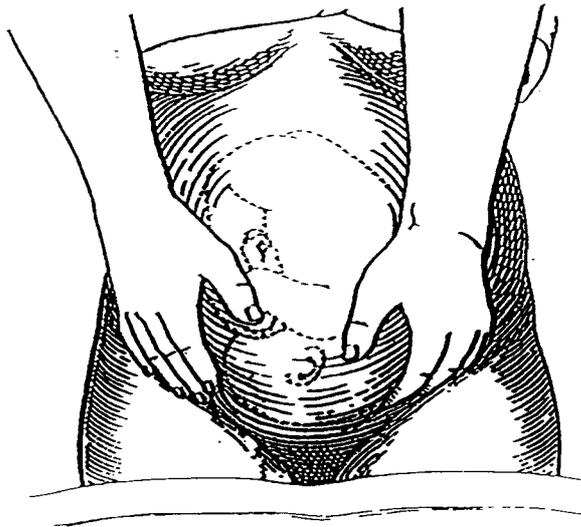
Second

II.a.7 (c)



Third

II.a.7.4 (d)



Forth

5

II.a.9 (1)

Referral Form

Client Name:

Age :

File No.

Date of Referral:

Referred From:

To:

Dept.

Hosp.

Center

Provisional Diagnosis :

Cause for Referral:

Dr. Name:

Signature:

Replay:

Dr. Name

Signature:

6

II.c.2.1

APGAR - Score

Is an immediate evaluation of the newborn infant at 1 and 5 minutes after birth. It is a valuable routine procedure. The following objective signs should be observed and recorded:

Table II.c.2.1

	Points	0	1	2
1	Heart Rate	Absent	Slow <100	>100
2	Respiratory effort	Absent	Slow irregular	Good crying
3	Muscle tone	Limp	Some flexion of extremities	Active motion
4	Response to catheter in nostril	No response	Grimace (Twisted Face)	Cough or sneeze
5	Color	Blue or Pale	Body pink Extremities blue	Completely pink

APGAR - Score 8-10

The infant is in the best condition, vigorous, pink and crying.

APGAR - Score 5-7

The infant is moderately depressed, appears cyanotic with slow and irregular respiration, but has good muscle tone and reflexes.

APGAR-Score 4 or less

The infant is severely depressed, limp, pale or blue, apneic, and has a slow heart rate.

7

II.c.3.(1)

Pediatric Measurements

Weight measurement

- i) Always make sure that the scale is functioning properly and accurately and that the scale is adjusted at zero level before putting the baby on the scale.
- ii) All the clothing should be taken off before weighing the baby (if clothing is not taken off e.g. because of cold, then a note should be made of this in the chart).
- iii) Measurement should be taken to the nearest 10 grams for babies below 15Kg.
- iv) Infant weighing scale should be used for babies less than 24 months (below 15 Kg of weight).
- v) If there is difficulty in weighing the baby alone, the mother's weight can be taken

8

II.c.3.2

Pediatric Measurements (Continued)

Head circumference measurement

- i) Should be measured by a non-elastic measuring tape (tissue, cloth).
- ii) Should be taken while the baby is in the sitting or supine position.
- iii) The measuring tape should be fixed at the highest point on the forehead, and passed at the same level to the highest point of the lateral head bones until it meets at the highest point at the posterior part of the head (highest occipital point) and the reading should be taken to the nearest millimeter. These measurements should be recorded on the growth curve for evaluation and follow-up.

II.c.3.(3)

Pediatric Measurements (Continued)**Length measurement**

The length of the baby should be taken in supine position until the age of two years and in standing position thereafter (shoes and headcover should be taken off).

It is preferable that two persons cooperate to measure the baby. The mother can assist.

- i) The baby should be placed on the measuring board. The head should be fixed by one person (mother), making sure that the head is touching the wooden headpiece.
- ii) The baby's body should be kept straight on the measuring board with his knees extended so that the head, trunk, and legs are on one line.
- iii) The mobile wooden piece should be moved, so that it touches the heels of the baby. The reading should be taken to the nearest millimeter.

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II.B.3.1 Breast Examination Protocol

(attachment II.b3.1)

1. Appearance
2. Feel for lymph nodes
3. Feel for breast lumps
4. Nipples
5. Encourage client to do self-exam.

General Approach

This section is written as if you were examining a woman's breasts.

To reassure client, do the following:

- Keep exam private. Have people leave the room, if not needed.
 - i. If you are a man, you may want to have a woman stay in the room with you.

Undress: ask client to uncover the chest from waist up, so that you can see the whole area well.

- Give woman a drape to cover her self.

As you examine:

- Have good light.
- Compare one side of the body to the other.
- Explain to the client what you are doing. Teach and let client practice, for self-exam.
- If abnormal, be sure to report to referral doctor.

1. Appearance

Look at the breasts, skin and nipples:

1.1 Look carefully as you have client do the following things:

- Sit with arms at sides
- Raise arms over head
- Lean over, with arms stretched forward
- Tighten chest muscles by pushing palms of hands together.

1.2 If large breasts, lift them up to see all areas of the skin.

1.3 Normal includes:

- Size and shape of breasts may not be exactly the same but are normal for the client.
- Adolescent girl may have enlargement of one or both breasts.

1.4 Abnormal includes:

- Change in size of breast, such as swelling or shrinking.
- Skin change such as redness thickening, scaliness or if skin in any spot looks pulled in (retraction, dimpling, or puckering).
- Nipple discharge or bleeding
- Nipple change such as if one nipple sticks out more than the other (elevation), nipple turns inward, or rash.

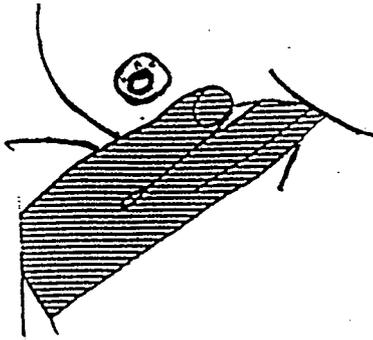
2. Feel for Lymph Nodes

2.1 Have Client sit with arms at sides.

2.2 Support the Client's arm, while you feel in each armpit area for lymph nodes:

- Insert your hand as far into the armpit as you can
- Press your hand against the chest wall, feeling for lymph nodes
- While you continue to feel for lymph nodes, slowly remove your hand from armpit.

2.3 If you feel lymph nodes, note size, tenderness and mobility.



3. Feel for breast Lumps

There are other ways to do this exam, examine the way you have been taught. The following is recommended:

3.1 Have Client lie down on her back with arms behind her head.

- If large breast, to make breast lie flat, place a towel under chest/shoulder area on side you are examining, so that breast is tipped forward toward the center and flattened.

3.2 Feel for lumps in each breast, feel with your finger tips:

- Place the flat part of your fingertips on the skin.
- Press gently but firmly.
- Use the middle three fingers to move the skin over the tissue underneath. Use a circular motion.
- Pretend that the breast is like the face of a clock as you examine the outermost part of the breast.
- Begin to feel for lumps at 12 o'clock, next move to 1 o'clock, continue to move around the clock and feel for lumps, including breast tissue near the armpit. It is normal to feel a ridge of firm tissue in the lower curve of each breast.
- When you get back to 12 o'clock move in an inch toward the nipple. Examine around the edges of a smaller clock.
- Continue to feel for lumps in this way until you have examined every part of the breast, including the nipple area.

3.3 If large breast, in order to do complete exam, feel for lumps with the woman in other position in the next drawing.

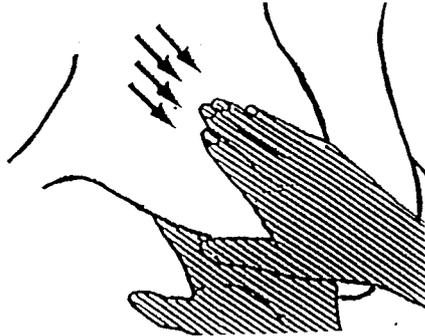
3.4 If you feel a lump, carefully examine and report to your referral doctor.

- Location: Where is the lump exactly? Make a drawing. Put an X where the lump is.
- Size and shape: Measure in mm. or cm.
- Is it tender to the touch? If so, check for other signs of inflammation or infection. Is it warm, red, swollen?

- What does it feel like? For example is it soft, firm, hard?
- Is it mobile or attached to something?

Try to pick up or move skin over the lump.

- ii. Mobile = skin moves over the lumps attached to skin = lump moves with the skin, try to move/ side lump over tissue that is underneath.
- iii. Mobile = lump slides over tissue that is underneath attached to some thing = lump does not slide over tissue that is underneath. It feels like a lump.
- iv. If it is near the woman's period, plan to recheck the lump right after the period ends and report again to your referral doctor even if exam is normal.



4. Nipples

4.1 If nipples are turned inward (inverted), try to get them to turn back out:

- Gently press or pull on edge of nipple.
- Abnormal includes if nipple recently turned inward on one side and you can not get it to turn back out.

4.2. Check each nipple for discharge or blood.

- Press around the edges of nipple (nipple line).
- Gently squeeze nipple between your thumb and pointer finger.
- Abnormal includes discharge or blood. If so, examine
 - v. How much is there?
 - vi. What does it look like (color, clear or cloudy, thick or thin)?
 - vii. What does it smell like?

5. Encourage Client to do self-exam.

Client Education

Breast Self - Exam

1. If you regularly do breast self-exam, you will

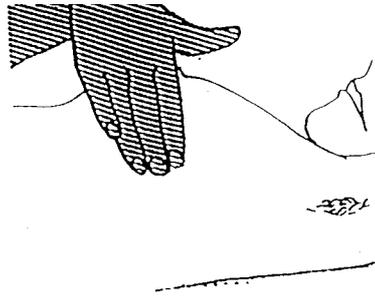
- Know what is normal for you.
- Find lumps or other problems early, to prevent serious problems.

2. In a mirror, look carefully at your breast skin and nipples for any changes. Do the following :

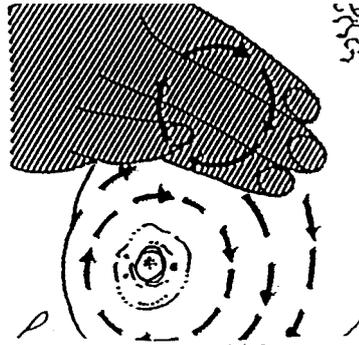
- Sit or stand with arms at your sides.
- Raise your arms overhead.
- Lean over with your arms stretched forward.
- Tighten chest muscles by pushing palms of your hands together.

3. Feel for lumps in your armpit, with your arm relaxed at your side.

4. Examine your breasts while lying down:



- Lie down on your back on the side you are examining.
- Place towel under your chest/shoulder area.
- Put your arm behind your head, if possible.
- Feel for lumps with the flat part of your fingertips as in the next drawing. Use a circular motion.
- Pretend that your breast is like a clock as you examine the outermost part of your breast:



- Begin to feel for lumps at 12 o'clock.
- Next move to 1 o'clock.
- Continue to move around the clock and feel for lumps including breast tissue near your armpit.
- When you get back to 12 o'clock move in an inch toward your nipple. Examine around the edges of a smaller clock.
- Continue to feel for lumps in this way until you have examined every part of your breast, including your nipple area.
- Squeeze each nipple between your thumb and pointer finger to check for discharge or blood.



5. Do the above breast self-exam once every month. Do it a day or two after your period is finished or, if you are no longer having periods, on the first day of every month.
6. Feel for breast lumps whenever you take a bath or a shower.
 - Your finger will move easily over wet skin. You may feel a small lump that you missed when your breast was dry.
 - On the side you are examining put your arm behind your head. If possible use your other hand to feel for a lump.
7. Remember warning signals that may be related to breast cancer:
 - Lump in the breast or armpit.
 - Skin changes such as redness, thickening, scaliness, or if skin in any spot looks pulled in.
 - Sore in the breast that does not heal.
 - Discharge or bleeding from the nipple.
 - Nipple change, such as if one nipple sticks out more than the other, nipple turns inward, or rash.
 - Change in size of breast, such as swelling or shrinking.
 - Persistent breast pain or discomfort.
8. See your doctor once a year for health surveillance.
 - Sooner, if your self-exam is not normal or if you have concerns.
 - Although most breast problems are not cancer, the doctor may want to biopsy (remove part of) a lump to check for cancer.
 - Breast cancer found early and treated quickly has a good chance for cure.

Infection Prevention

11

**INFECTION PREVENTION
Protocols**

COMPREHENSIVE POSTPARTUM PROJECT
PATHFINDER INTERNATIONAL
In Collaboration with
MINISTRY OF HEALTH

JORDAN March 1998

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Infection Prevention

Introduction

The use of correct infection prevention techniques during the provision of family planning and reproductive health care services is crucial to the safety of both clients and service providers.

Overview

Microorganisms live everywhere in our environment. We normally carry them on our skin and in our upper respiratory and intestinal tracts. These microorganisms are called "normal flora." Microorganisms are also found in animals, plants, the soil, air, and water. Some microorganisms are more pathogenic than others. However, given the right circumstances, **all microorganisms may cause infection**. In order for bacteria, viruses, and other infectious agents to survive and spread within a clinic or hospital, certain factors or conditions must exist.

Key Definitions:

Asepsis or **aseptic technique** are general terms used in health care settings to describe the combination of efforts made to prevent entry of microorganisms into any area of the body where they are likely to cause infection. **The goal of asepsis is to reduce or eliminate the number of microorganisms on both animate (living) surfaces (skin and tissue) and inanimate objects (surgical instruments)** to a safe level.

Antisepsis is the prevention of infection by killing or inhibiting the growth of microorganisms on skin and other body tissues through the use of a chemical agent (antiseptic).

Decontamination is the process that makes inanimate (non-living) objects safer to be handled by staff (especially cleaning personnel) **before cleaning**. Such objects include large objects (e.g., examination tables) and surgical instruments and gloves contaminated with blood or body fluids during or following medical procedures.

Cleaning is the process that physically removes all visible blood, bodily fluids, or any other foreign material such as dust or soil from skin or inanimate objects.

Disinfection is the process that eliminates most, but not all disease-causing microorganisms from inanimate objects. **High-level disinfection** (HLD), through boiling or the use of chemicals, eliminates all microorganisms except some bacterial endospores.

Sterilization is the process that eliminates **all** microorganisms (bacteria, viruses, fungi,

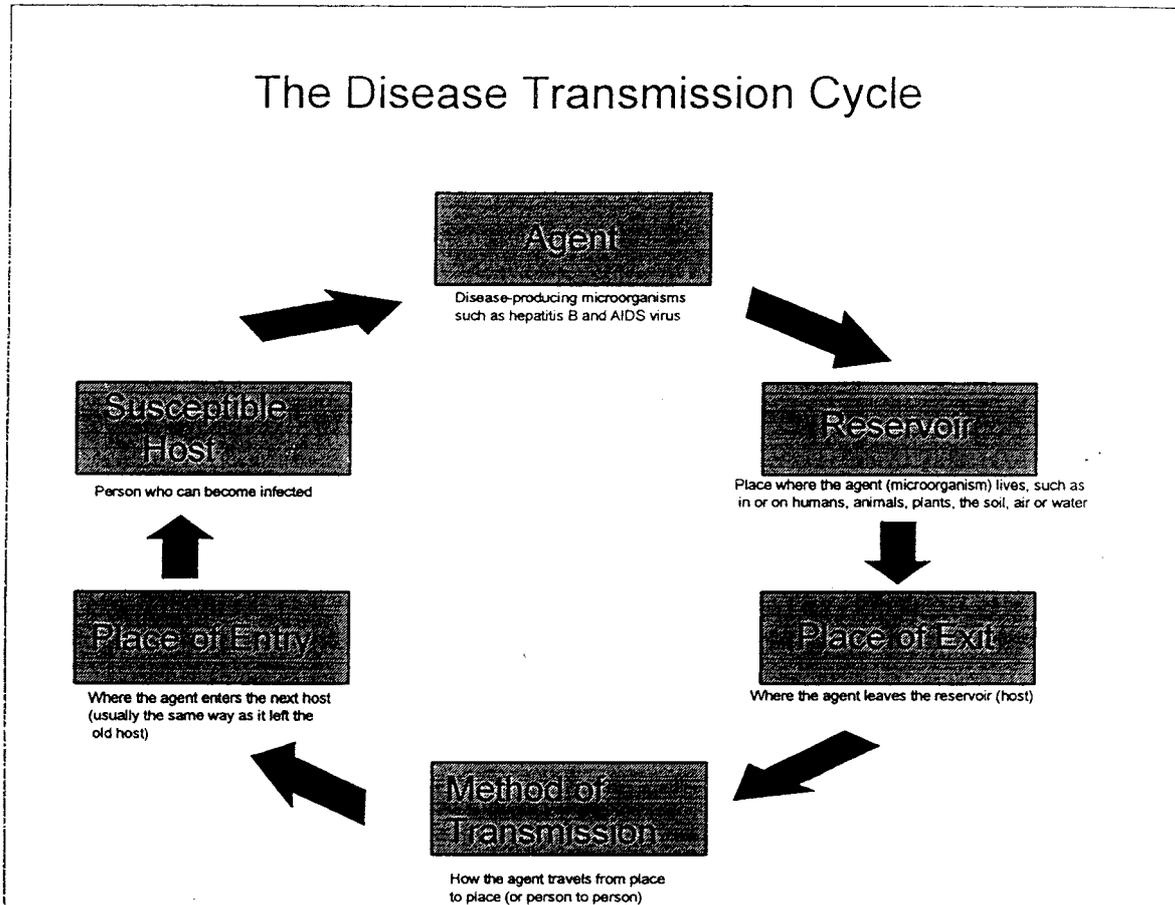
and parasites), including bacterial endospores from inanimate objects.

To create an infection-free environment, it is important that **the rationale** for each of the recommended infection prevention processes (and its limitations) **be clearly understood** by clinic staff at all levels from service providers to cleaning and maintenance staff.

Because it is not possible to know in advance if a client is infected with hepatitis B or HIV, **all items from all clients must be handled as if they are contaminated and all clients treated as if they may be infected.**

Microorganisms which cause disease include bacterial endospores, bacteria, parasites, fungi, and viruses. **Bacterial endospores can only be killed by sterilization.** Other microorganisms can be killed by either sterilization or high-level disinfection.

Disease Transmission Cycle



Source: Tietjen, L., Cronin, W., McIntosh, N., Infection Prevention for Family Planning Service Programs, JHPIEGO, Baltimore,

Instruments

Human Tissues the Instrument or Object Will Touch	Examples of Instruments and Objects	Appropriate Infection Prevention Procedure
Intact (unbroken) skin	Examining table or other surfaces contaminated by body fluids, sphygmomanometer, stethoscope, linen, scale, measuring table, storage area for medications and equipment	Decontamination to destroy easily killed viruses (such as HIV) and other microorganisms To decontaminate, wash with 0.5% chlorine solution and rinse with clean water
Mucous membranes or broken skin	Uterine sounds, specula, IUDs, gloves for pelvic exam, laryngoscope	High-level disinfection to destroy all micro-organisms except bacterial endospores To high-level disinfect, soak instruments in 0.5% chlorine solution or 2% Cidex for 20 minutes
All tissue beneath skin or bloodstream	Invasive instruments such as needles and syringes, scalpels, and trochars for Norplant implants	Sterilization to destroy all live microorganisms including bacterial endospores To sterilize, use: Dry heat oven at 170° for 60 Min. 160° for 120 Min. 150° for 150 Min. 140° for 180 Min. 121° overnight or: Autoclave at 121°C, 106 kPa pressure or 15 lbs/in ² for 30 Min. if wrapped or 20 Min. unwrapped or: 2% Cidex for 8-10 hours, rinse with sterile water

Note: Laparoscopes can be High Level Disinfected by soaking in 2% Cidex for 20 Min. and then rinsed with boiled water or sterilized by soaking in 2% Cidex for 8-10 hours and then rinsing in sterile water.

Source: Tietjen, L., Cronin, W., McIntosh, N., Infection Prevention for Family Planning Service Programs, JHPIEGO, Baltimore,

Infection Prevention Assessment Form

Instructions: Please fill in the general information below. In each table, fill in the required information.

Country: _____

Province/State: _____

City/Town: _____

Name of Service Delivery Site: _____

Date of Visit: _____

Name of Observer: _____

Staff Interviewed: _____

The service site is located in a: () urban () rural () periurban area.

Organizational affiliation: () MOH () NGO/PVO () Private sector

General Observations: _____

Clinical Reproductive Health Activities Requiring Infection Prevention Practices:

FP/MCH Services	Service Provided (Yes/No)	Monthly Case Load
IUD Insertion/Removal		
Injectables		
Female Sterilization		
Male Sterilization		
Norplant Implants		
Incomplete Abortion Services		
Deliveries		

Observation of the Facility

Does the clinic have dedicated spaces or rooms or the facility required for each of the following purposes? Fill in "Yes" or "No" in the **Answer** column. If any rooms require renovations, or if you have additional comments, use the **Comments** column.

Room/Facility	YES	NO	Comments
Separate room for processing equipment			
Electricity			
Continuously available water			
Running water (faucet) or pump			
Other supply of water (hand carried from well, river, storage tank)			
Functioning sink in procedure room			
Toilet for clients			
Room/area for examining clients			
Multi-purpose operating room			
Operating room set aside for VSC procedures			
Scrub facilities with immediate access to operating room			
Hot air oven, autoclave, or boiler available and functioning			
IUD insertion/removal kits available			
VSC equipment available			
Norplant insertion/removal equipment available			
MVA equipment available			
Covered container for storing equipment available			

Infection Prevention Skills of Service Providers

Observe the IP skills of service providers at the site. In the **Rating** column, note the skill level of the provider using the rating system below. Make any additional comments in the **Comments** column.

- 0 Not competent/adequate
- 1 Competent/adequate
- NA Not applicable or observed

Infection Prevention Task	Rating	Comments
DECONTAMINATION		
0.5% chlorine solution available		
Buckets available for chlorine solution		
Mix chlorine solution correctly		
Place all instruments in chlorine solution for only 10 minutes immediately following the procedure		
Reusable gloves are decontaminated in 0.5% chlorine for 10 minutes		
Disposable gloves are rinsed in 0.5% chlorine and inverted before disposal		
Wipe down exam table with chlorine between clients		
MVA equipment is decontaminated by drawing chlorine solution in and out of syringe and cannula		
CLEANING INSTRUMENTS		
Large brush available		
Small brush available		
Detergent available		
Completely disassemble instruments and/or opens jaws of jointed items		
Wash all surfaces with a brush or cloth until visibly clean		
Thoroughly clean serrated edges		
Rinse all surfaces with clean water		
Wear utility gloves		
Dry by air or towels before further processing		
HIGH-LEVEL DISINFECTION BY BOILING		
Decontaminate and clean items		
Completely submerge items in water		
Start timing when boiling begins		
Keep at rolling boil for 20 minutes		
Air dry equipment		
Boiled items removed using HLD forceps		
HIGH-LEVEL CHEMICAL DISINFECTION		
Decontaminate and cleans instruments		
Use one of the following: Chlorine 0.5% for 20 minutes Formaldehyde (one part 35 - 40% to four parts water) for 20 minutes Glutaraldehyde (Cidex) for 20 minutes Hydrogen peroxide 6% (one part 30% to four parts water) for 20 minutes		
Prepare fresh solution		
Immerse items completely		
Rinse items with boiling water and allow to air dry		
Store items in HLD container		

STERILIZATION BY AUTOCLAVE		
Decontaminate, clean, and dry instruments		
Disassemble items		
Wrap instruments		
Arrange packs loosely in autoclave		
Puts holes in drums in open position		
Heat water until steam escapes from pressure valve only		
Follow directions for operating autoclave		
Sterilize for 30 minutes for wrapped items and 20 minutes for unwrapped items at 121° C (250° F) and 106 kPa (15 lbs/in ²)		
After autoclaving, open the lid and let instruments dry for 30 minutes before removing		
STERILIZATION BY DRY HEAT		
Decontaminate, clean, and dry instruments		
Put instruments on traps or wraps loosely		
Begin timing after temperature has been reached		
Use standard time/temperature 170° C (340° F): 60 minutes 160° C (320° F): 120 minutes 150° C (300° F): 150 minutes 140° C (285° F): 180 minutes 121° C (250° F): over night		
Follow manufacturer's directions		
After cooling, remove instruments with HLD forceps		
CHEMICAL STERILIZATION		
Has 2% glutaraldehyde freshly made		
Soak in covered container eight to ten hours		
Rinse items with sterile water		
Air dry instruments		
Store items in a sterile covered container		
Handle items with HLD forceps		
HANDWASHING		
Is done BEFORE: A day's work Examining a client Administering injections or drawing blood Performing a procedure (IUD or pelvic exam) Putting on gloves Handling clean, disinfected or sterile equipment Going home		
Is done AFTER: Examining each client Performing an IUD insertion Removing gloves Each injection Touching any body fluids, secretions, or mucous membranes Touching wounds or open sores Touching any instruments used on clients		

Blowing nose, sneezing, coughing or personal use of toilet		
Has hand soap available		
Soap dish which drains is available		
If no soap is available, alcohol is used		
Surgical hand scrub is done for three to five minutes only		
BARRIERS		
Linen is clean		
Change paper or linen between clients		
Wear sterile gloves between procedures		
Gloves are decontaminated after use		
Pick-up forceps are HLD daily		
Pick-up forceps are stored dry in a HLD or sterile container		
Use clean or HLD gloves for: Vaginal exam or contact with vaginal excretions Performing IUD insertion or removal Handling and cleaning dirty instruments		
Use sterile gloves for: Postpartum (postplacental) IUD insertion Norplant implant insertion/removal VSC		
Use clean towels		
Put on gloves without contaminating them		
ANTISEPSIS		
Wipe skin or mucous membranes with an antiseptic solution before: Injecting injectable contraceptives Taking blood samples Cervical swab before IUD insertion (no alcohol) Norplant implants insertion/removal		
Use only the following antiseptic solutions for skin and mucous membranes: Alcohols 60 - 90% (not for mucous membranes) Chlorhexidine Iodine and alcohol preparations (not for mucous membranes) Iodophors (betadine)		
HANDLING SPECIMENS		
Wear clean gloves when obtaining or handling specimens		
Clean spills of blood or other bodily products up with 0.5% chlorine		
WASTE DISPOSAL		
Needles are disposed of in a separate container filled with 0.5% chlorine		
Medical waste is removed daily		
Medical waste is destroyed by burning		

Protective Barriers and Handwashing

Protective Barriers

anything which will protect the service provider and patient from the transmission of infection.

Protective barriers are designed to prevent the spread of infection from person to person and/or equipment, instruments, and environmental surfaces to people.

Placing a physical, mechanical or chemical "barrier" between microorganisms and an individual, whether a client, patient, or health worker, is an effective means of preventing the spread of disease. **The barrier serves to break the disease transmission cycle.**

Barriers include the following:

- 1.. Handwashing
2. Wearing gloves, either for surgery, pelvic examinations, IUD insertions, or to protect clinic staff when handling contaminated waste materials or used instruments
3. Using antiseptic solutions for cleaning wounds or preparing the skin prior to surgery
4. Decontamination, cleaning and high-level disinfecting or sterilizing surgical instruments, reusable gloves, and other items

Handwashing

Handwashing is the simplest and most important infection prevention procedure in any clinic. It removes many microorganisms from the skin, which helps to prevent transmission of infections from person to person.

1. Handwashing Should be Done:

Before: The day's work; examining a client; administering injections or drawing blood; handling clean, disinfected, or sterilized supplies for storage; putting on sterile gloves; going home.

After: Any situation in which the hands may be contaminated, such as handling instruments or touching body secretions or excretions; removing gloves; personal use of toilet; blowing nose, sneezing, or coughing.

2. Supplies Needed for Handwashing:

Clean water (water may be running or from a bucket, but it must be clean)

Soap

Soap dish that drains and keeps the soap dry

Clean, dry towel

Bucket and dipper; or alcohol, if no running water is available

Soft sticks for nail cleaning, if available

Steps to Follow in Handwashing:

- 1- **Remove jewelry:** no jewelry, except plain wedding bands, or nail polish should be worn. Jewelry and nail polish offer protection to microorganisms.
- 2- Turn on the water from the tap. **Avoid splashes.**
If there is no running water, use a dipper to pour water on the hands at the beginning and when rinsing.
- 3- Position the hands and wrists downward as you wet them so that the water flows down.
- 4- Soap the hands and hold the bar with two fingers to rinse it before placing it back in the soap dish.
Avoid touching the sink as it is probably contaminated.
- 5- Wash hands for 15 - 30 seconds.
- 6- Use a soft, thick stick to clean nails when grossly contaminated and at the beginning and end of the clinic session.
- 7- Point hands down when rinsing them with running water.
- 8- Air dry hands, use a hand dryer or dry them with an unused, dry portion of a **clean** cotton towel which is not used by others.
- 9- Use the towel or a paper towel to turn off the faucet.

If Water is Not Available:

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

Surgical Handscrub:

Surgical handscrub should be done with water which is not contaminated. Each hospital should ensure a clean supply of water through routine sampling.

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

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

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

Use 3 - 5ml for each application and continue rubbing the solution over the hands for about

two minutes, using a total of 6 - 10ml per scrub.

Steps to Follow for Surgical Handscrub:

1. **Remove all jewelry**
2. Adjust the water to a comfortable temperature.
3. Holding hands above the level of the elbow, wet hands thoroughly and apply soap.
4. Beginning at the fingertips, lather and wash, using a circular motion. Wash between all fingers. Move from fingertips to elbows of one hand and repeat for the second hand. Never return soap to dish during the scrub.
5. Rinse each arm separately, fingertips first, holding hands above the level of the elbows.
6. Wash for 3-5 minutes.
7. Using a separate towel for each hand, wipe the fingertips to the elbow and then discard the towel.
8. If donning sterile gloves and gown: hold hands above the level of the waist and do not touch anything. Immediately get into sterile garb.
9. 3 through 8
must be repeated.

Gloving for Protection from Infection

Gloves are used to protect the health care provider from contact with potentially infectious substances and **to protect the client or patient** from infections which might be found on the skin of the health care provider.

Points of Contact Where Infection Can be Introduced Include:

- Pelvic examination
- Contact with any lesions
- When handling contaminated materials
- When cleaning instruments, equipment and contaminated surfaces

Observe the Following When Using Sterile Gloves:

Use a separate pair of gloves for each client to avoid cross-contamination.

Do not use gloves from a package that is broken or expired.

Do not use gloves which are cracked, peeling or have holes or tears.

Never touch the outside of the gloves while putting them on; handle them only by the out-turned inner cuff.

Note: Adjusting the cuff of one glove will contaminate the fingers of the other hand.

If gloves accidentally become contaminated, change them immediately.

Wash hands after gloves are removed at the end of client contact.

Procedure for Putting on Sterile Gloves¹:

1. Prepare a large, clean, dry area to open gloves.
2. Obtain correct size of sterile gloves.
3. Wash hands and dry well. Lightly powder hands (not gloves) if inside of gloves are not powdered.

Note: Do not use powder for insertions of Norplant or other silastic implants, because the powder will adhere to the silastic capsule, causing a foreign body reaction.

4. Open other sterile supplies (e.g., open end of IUD package).
5. Open outer glove wrapper and lay the glove package out on a clean surface, with cuffs facing you. (This should be the bottom edge of the packet.) Take care not to touch the inner surface of the wrapper if you intend to use it as a sterile field.
6. Pick up a glove by the folded-back cuff. Be careful to touch only the inside portion of the cuff (i.e., the side which will be touching your skin when the glove is on).
7. While holding the glove, slip the other hand into the glove. Pointing the fingers of the glove to the floor will keep the fingers open by force of gravity. Be careful not to touch anything; holding the gloves above waist level will help.
8. If the first glove is not fitting correctly, **wait to make any adjustments until the second glove is on**. Then you can use the sterile fingers of one glove to adjust the sterile portion of the other.
9. To pick up the second glove, **slide the fingers of the gloved hand between the folded cuff and the sterile portion of the second glove. This is very important, in order to avoid contaminating the gloved hand with the ungloved hand.**
10. Place the second glove on the ungloved hand by maintaining a steady pull through the folded cuff.
11. Do not attempt to adjust cuffs once the gloves are on, since this may cause the gloves to become contaminated.
12. Adjust the position of the glove fingers until the gloves fit comfortably.

13. Always keep gloved hands above the waist level and in sight to avoid accidental contamination.
14. If a glove becomes contaminated, **stop** and ask yourself if the glove will touch a sterile or disinfected instrument, the client's mucous membranes or sterile tissue. If yes, either remove that glove and reglove, or put another sterile glove over the contaminated glove.
15. When removing gloves, avoid allowing the surface that was sterile to come into contact with your hands (the exterior of the gloves is now contaminated).
16. First decontaminate by immersing both gloved hands fully in a 0.5% chlorine solution, then remove by turning them inside out. Either dispose of gloves in a waste container or allow the gloves to soak for 10 minutes.

Antiseptic Use

Antiseptic Effectiveness

Group	Activity Against Bacteria						Recommended Use				
	Gram Positive	Most Gram Negative	TB	Viruses	Fungi	Endo-spores	Relative Speed of Action	Affected by Organic Matter	Surgical Scrub	Skin Preparation	Comments
Alcohols (60 - 90% ethyl or isopropyl)	Very good	Very good	Good	Good	Good	None	Fast	Data varies	Yes	Yes	Not for use mucous membranes
Chlorhexidine ¹ (4%) (Hibitane, Hibiscrub) Cholorhexidine with Centrimide (Savlon)	Very good	Good	Poor	Fair	Fair	None	Slow	Slight	Yes	Yes	Has good persistent effect
Iodine preparations (3%). Iodine and alcohol (tincture of iodine)	Very good	Very good	Good	Good	Good	Poor	Intermediate	Slight	No	Yes	Not for use mucous membranes
Iodophors (1:2,500) (Betadine)	Very good	Good	Good	Good	Good	None	Slow	Yes	Yes	Yes	Can be use on mucous membranes
Para. Chloro -Meta-Xylenol (Dettol)								Slight	yes	Yes	Less effective than Chlorhexidiri or Iodophor: Not recommend for Routine

¹Note: Savlon, which contains chlorhexidine, is not listed because the concentration of chlorhexidine varies from country to country from as little as 1% to as much as 4%. Dettol, which is Para-Chloro Meta-Xylenol also varies in available concentration and therefore is NOT recommended for routine use.

Source: Adapted from Tietjen, L., Cronin, W., McIntosh, N., Infection Prevention for Family Planning Service Programs, JHPIEGO, Baltimore, MD, 1992.

Antiseptic solutions should be used in the following situations:

Surgical scrub

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

Skin or vaginal preparations for procedures such as minilaparotomy, laparoscopy, vasectomy, Norplant implant insertion or removal, IUD insertion and injections.

Handwashing before touching clients who are unusually susceptible to infection, such as newborns or immunosuppressed persons.

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

Note: All antiseptic containers must be carefully labeled in simple language with expiration date.

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

Dangers of Mercury-Containing Compounds:

Although frequently sold for antiseptics, **mercury-containing chemicals**, such as mercury laurel, **should be avoided due to their toxicity.**

Skin exposure to low levels of mercury causes blister formation (contact dermatitis). Inhalation or ingestion of low levels of mercury can cause central nervous system effects (numbness, speech impairment, deafness), and higher levels (200mg) can be fatal. Skin contact alone can result in absorption of measurable amounts of mercury. Pregnant women exposed to small doses may not show toxic effects themselves, but their fetuses may be harmed. Mercury is a potent teratogen (causes birth defects, including cleft palate, cerebral palsy, and other central nervous system abnormalities).

Skin and Mucous Membrane Preparation

Prior to Surgical Procedures or IUD Insertion:

- 1. Do not remove hair from the operative site unless absolutely necessary.** If hair removal must be done, trim the hair close to the skin surface immediately before surgery. **Shaving increases the risk of wound infection**, since the tiny nicks in the skin provide an ideal setting for microorganisms to grow and multiply.
2. Ask the client about known allergic reactions before selecting an antiseptic solution.
3. If visibly soiled, thoroughly clean the client's skin or external genital area with soap and water or have her clean it before applying antiseptic.
4. Apply antiseptic. Select an antiseptic solution from the chart on Antiseptic Effectiveness
5. Using dry, disinfected forceps and cotton dipped in antiseptic, thoroughly cleanse the skin by gently scrubbing. Work from the operative site outward for several inches. A circular motion from the center out helps to prevent recontamination of the operative site with local skin bacteria.
- 6. Do not allow the antiseptic to pool** beneath the client's body. This reduces skin irritation.
7. Allow the antiseptic to dry before beginning the procedure. If using an iodophor, wait 1 - 2 minutes before proceeding to allow time for the iodine to be released.
8. Dispose of gauze swabs according to standard procedures.

Vaginal Preps:

For vaginal preps, prior to IUD insertion or removal, select a water-based antiseptic such as an iodophor or chlorhexidine gluconate (Hibiclens or Savlon). Do not use alcohols; they burn and irritate mucous membranes, promoting the growth of microorganisms.

1. Ask the client about known allergic reactions before selecting an antiseptic solution.
2. If visibly soiled, thoroughly clean the client's skin or external genital area with soap and water or have her clean it before applying antiseptic solution.
3. Apply an antiseptic solution to the perineum. See Chart on Antiseptic Effectiveness and select the appropriate antiseptic solution. Allow the antiseptic to dry before beginning the procedure.
4. After inserting the speculum, apply the antiseptic solution liberally to the vagina and cervix (two or three times) using dry, disinfected forceps and cotton soaked in the antiseptic.
5. If iodophors are used, allow one to two minutes before proceeding (iodophors require up to two minutes contact time to release free iodine).
6. Dispose of contaminated swabs according to standard procedures.

Skin Preparation for Injections:

1. Cleanse skin with 60 - 90% ethyl or isopropyl alcohol, removing all visible soil.
2. With a fresh cotton swab and alcohol solution, wipe the injection site thoroughly in a circular, overlapping motion starting at center.
3. Allow the area to dry before giving the injection. **For alcohol to be effective, it must be allowed to air dry.**
4. Dispose of contaminated cotton ball according to standard procedure.

Processing Instruments and Equipment Decontamination

Decontamination is the first step in handling used (soiled) instruments and gloves.

Instruments with secretions or blood from a client must be decontaminated before being cleaned and high-level disinfected or sterilized. These include uterine sounds, tenaculum, specula, etc. Decontamination is done to protect personnel who must handle the instruments.

Supplies needed for decontamination include: water; a plastic or enamel pail; and chlorine. Refer to Section on Recommended Dilutions of Chlorine-Releasing Compounds and Sodium Hypochlorite to determine the type of chlorine available in the country and the concentration required.

Procedures for Decontamination:

- a. Make sure the room has adequate ventilation .
- b. Wear protective gloves. (Keep a separate set of gloves for decontamination.)
- c. Submerge items in chlorine bleach solution for 10 minutes.
- d. Remove the item(s), rinse immediately with cool water to prevent corrosion, and clean in routine manner.

Cleaning

Cleaning instruments is necessary before high-level disinfection or sterilization to remove all visible foreign material and some microorganisms. **Dried organic materials can entrap microorganisms in a residue that shields them against sterilization or chemical disinfection.** It also reduces the load of bacteria. Supplies needed for cleaning are: detergents or soap; brushes of various sizes and types; protective gloves; and basins or sinks which are specially designed for cleaning equipment.

Procedures for Cleaning:

- a. Wear clean protective gloves and apron.
- b. Rinse the items in cool water, opening or disassembling them when possible.
- c. Submerge them in a basin with detergent and water prepared according to the manufacturer's directions. Make suds as you would for dishes.
- d. Use brushes (a tooth brush works well in addition to a larger brush) to remove soiled matter, paying attention to interior and hinged areas.
- e. Rinse thoroughly in clean water.
- f. Dry by air or clean towels before further processing.
- g. Maintain cleaning supplies and equipment in dry, clean condition.

High-Level Disinfection (HLD)

HLD kills most or many disease-producing microorganisms, including viruses which may cause hepatitis B or AIDS, except for endospores. It is used on inanimate objects and can be achieved by boiling or by chemical disinfectants of varying degrees.

HLD by Boiling:

High-level disinfection by boiling is easy to do and relatively safe and inexpensive. Boiling will kill some endospores but not all, but the level of disinfection is acceptable for IUDs, IUD inserters, specula, tenacula, forceps, scissors, uterine sounds and IUD removal hooks. Any large covered cooking container and heat source can be used, although commercial boilers may be more convenient. Refer to Section on Steps in Processing Instruments and Equipment to determine which process to choose for specific instruments and pieces of equipment.

Procedures for Boiling:

- a. Decontaminate and clean the items thoroughly. Disassemble as applicable and remove air bubbles trapped in needles and syringes.
- b. Place the cleaned items in the boiler and completely cover them with clean water. Consider boiling the same kinds of items together for easier handling.
- c. Boil for 20 minutes. **Begin timing when boiling action starts.**
- d. If an additional item is put in after boiling has begun, start timing again.
- e. Remove items from boiler and put in covered, high-level disinfected, or sterile containers using dry sterile or HLD handling forceps.
- f. Never let boiled items remain in water once it has cooled. Microorganisms can begin to grow in the cool water, and it is possible that instruments will start to rust in the water after this length of time.
- g. Store for up to one week in a high-level disinfected, covered container if dry. If instruments are wet, they must be used the same day.

HLD Using Chemicals:

Chemical disinfection can also be used in certain situations, such as when the item to be high-level disinfected cannot withstand heat. When doing chemical HLD, soak the items in a high-level disinfectant for 20 minutes and then rinse well in boiled water. A variety of chemical disinfectants are available (See Section on Preparing and Using Chemical Disinfectants.) Some Cidex solutions may be used for up to 30 days. Check the manufacturers instructions to make sure this is appropriate.

Procedures for Chemical High-Level Disinfection:

- a. Decontaminate and clean all instruments.
- b. Cover all items completely with the correct dilution of disinfectant
- c. Soak for 20 minutes.
- d. Remove the items with high-level disinfected large pickup forceps.
- e. Rinse well with boiled water and allow to air dry.
- f. Store for up to one week in a HLD covered container or use immediately.

Note: To prepare an HLD container, boil or fill with 0.5% chlorine solution and soak for 20 minutes. Rinse the inside with boiled water and allow to air dry before use.

Sterilization

The sterilization process ensures that all microorganisms, including bacterial endospores, are destroyed. Decontamination through cleaning, rinsing and drying must precede sterilization of instruments and other items that come into direct contact with the bloodstream or tissues under the skin. Heat (moist or dry) and chemical sterilization are the two types of sterilization usually available in hospitals. These methods should be used on items made of material that can withstand these processes.

Heat Sterilization:

Either an autoclave (steam under pressure) or an oven (dry heat) is necessary for heat sterilization.

Procedures for Operating an Autoclave or Pressure Cooker:

- a. Decontaminate, clean and dry the instruments to be sterilized.
- b. Disassemble and open the items as much as possible for best steam penetration.
- c. Wrap needles and sharp edges in gauze to prevent dulling them.
- d. Strictly follow the directions supplied by the manufacturer for operation of the autoclave or pressure cooker.
- e. Loosely wrap instruments in a double layer of muslin or newsprint to allow steam to penetrate. **Don't tie the instruments tightly together with rubber bands or by other means.** If possible, pack instruments in individual sets (such as a set for IUD insertion) which avoids contamination of other instruments during a procedure.
- f. Arrange the packs so air can circulate and steam can penetrate all surfaces.
- g. Heat water until steam escapes from the pressure valve only, and then turn down the heat enough to keep steam coming out of the pressure valve only. Don't allow it to boil dry.
- h. The temperature should be at 121°C (250°F); the pressure should be at 106 kPa or 15 lbs/in²; sterilize wrapped objects for 30 minutes or unwrapped objects for 20 minutes.
- i. After turning off the heat source, wait 20 - 30 minutes until the pressure gauge reads zero. Open the lid and let the packs dry completely (about 30 minutes) before removing. (Damp packs act like a wick to draw in bacteria, viruses and fungi.)
- j. Remove packs and store on sterile trays padded with paper or linen.
- k. Packs may be stored up to one week if kept dry. They may be stored up to a month if sealed in a plastic bag (date bag). Unwrapped objects must be used the same day.

Problem Solving for Autoclaving:

If steam escapes from the safety valve instead of the pressure valve, clean and inspect the pressure valve.

If steam escapes from under the lid, clean and dry or replace the rubber ring.

If items are not dry after autoclaving this may be because they are not allowed to dry properly. As soon as the pressure gage reaches zero, the door should be opened to allow steam to escape and the instrument packs left to dry for 30 minutes.

Procedures for Operating a Dry Heat Oven:

- a. Decontaminate, clean, and dry instruments.
- b. Wrap instruments in cotton or foil, or place in a lidded container. Wrapping is not absolutely necessary, but it prevents recontamination before use.
- c. Place instruments in oven and heat.
- d. Begin timing **only after the desired temperature is reached.**

- e. Operate the dry heat oven according to the manufacturers directions. Appropriate times and temperatures should be one of the following:
 - 170° C (340° F): 60 minutes
 - 160° C (320° F): 120 minutes
 - 150° C (300° F): 150 minutes
 - 140° C (285° F): 180 minutes
 - 121° C (250° F): overnight
- f. After cooling, remove loose items with dry sterile forceps/pickups and store in sterile covered containers up to one week. If instruments are not used often, sterilize just before use.

Note: Cotton cloth can only be heated up to 204° C (399° F). Never put plastic, rubber or latex gloves in a dry heat oven.

Chemical Sterilization:

This method of sterilization uses glutaraldehyde 2% (Cidex).

Procedures for Chemical Sterilization:

- a. Decontaminate, clean and dry instruments, canula or catheters.
- b. Wear good-quality protective utility gloves and goggles and open the windows.
- c. Prepare and use the solution in a ventilated area.
- d. Follow manufacturer's directions in preparing solution, using a covered plastic basin that is deep enough to submerge items.
- e. Prepare another covered sterile basin with sterile water for rinsing.
- f. Disassemble needles and syringes to remove air bubbles trapped inside. This allows liquid to reach all areas.
- g. Submerge items in disinfectant for 10 hours for sterilization.
- h. Handle items with sterile handling forceps or HLD forceps.
- i. Rinse the items in sterile water.
- j. Air dry instruments and store in sterile or disinfected containers.
- k. **Discard the rinse water.** If the solution will be reused, mark the disinfectant solution with the preparation and expiration dates recommended by the manufacturer. Some Cidex solutions may be used for up to 30 days.

Decontamination and Cleaning of Gloves

- a. Before removing reusable gloves soiled with blood or body fluids, immerse hands briefly in a bucket of 0.5% chlorine solution or other locally available and approved disinfectant.
- b. To remove the gloves, invert them and soak them in chlorine solution for 10 minutes before handling. This ensures that both surfaces of the gloves are decontaminated. **Do not leave the gloves in chlorine solution longer than 10 minutes.**
- c. Wash the gloves inside and out with soapy water.
- d. Rinse in clean water until no detergent remains, since it can interfere with disinfection.
- e. Test the gloves for holes; inflate them by flapping them to fill them with air and holding them under water. Air bubbles will appear if holes are present.
- f. Gently dry the gloves inside and out before high-level disinfecting or sterilizing. This can be done by hanging them on a line. **Gloves which remain wet for a long time will absorb water and become tacky.**

Note: Reusable gloves should not be reprocessed more than three times, since invisible tears may occur.

Steps in Processing Instruments and Equipment

Instruments/Equipment	Decontamination	Cleaning	High-Level Disinfection	Sterilization ¹
Process	Decontamination is the first step in handling dirty instruments; reduces risk of hepatitis B and AIDS.	Cleaning removes particulate matter and improves the quality of subsequent high-level disinfection or sterilization.	High-level disinfection destroys all viruses, bacteria, parasites, fungi, and some endospores.	Sterilization destroys all microorganisms, including endospores.
Pelvic exam table top or other large surface area	Wipe off with 0.5% chlorine solution; rinse.	Wash with detergent and water if organic material remains after decontamination procedure daily or as necessary.	Not necessary	Not necessary
Linens (caps, gowns, masks and surgical drapes)	Soak in 0.5% chlorine solution for 10 minutes if contaminated with blood or bodily fluids prior to cleaning. (Rinse and wash immediately. ²)	Wash with detergent and water, removing all particles. Rinse with clean water, air or machine dry.	Not necessary for caps, gowns and masks. Surgical drapes ³ : Boil or chemically HLD as below. Air-dried surgical drapes should be ironed before use.	Not necessary for caps, gowns and masks. Surgical drapes: Autoclave at 121°C (250°F) and 106 kPa (15 lbs/in ²) for 20 minutes.
Gloves (rubber or plastic)	Soak in 0.5% chlorine solution for 10 minutes prior to cleaning. (Rinse or wash immediately. ²)	Wash with detergent and water, removing all particles. Rinse with clean water and check for holes. If to be sterilized, dry inside and out (air or towel dry).	If touching only mucous membranes or broken skin (e.g. pelvic exam or IUD insertion): Steam for 20 minutes in a pot with a lid (start timing when water begins to boil). Steam must penetrate all gloves. Air dry before use or storage.	If used for surgery: Autoclave at 121°C (250°F) and 106 kPa (15 lbs/in ²) for 30 minutes. Do not use for 24-48 hours.
Diaphragms and/or fitting rings	Soak in 0.5% chlorine solution for 10 minutes prior to cleaning. Rinse or wash immediately. ²)	Wash with detergent and water, removing all particles. Rinse with clean water and check for holes. If to be sterilized, dry inside and out (air or towel dry).	Boil as above or chemically disinfect with: 8% formaldehyde, or a glutaraldehyde and rinse well in water that has been boiled for 20 minutes.	Not necessary, but can be autoclaved at 121°C (250°F) and 106 kPa (15 lbs/in ²) for 20 minutes.
Instruments for pelvic exam and IUD insertion (e.g., specula, tenacula, forceps, and uterine sounds.)	Soak in 0.5% chlorine solution for 10 minutes prior to cleaning. Rinse or wash immediately. ²)	Using a brush, wash with detergent and water, removing all particles. Rinse with clean water. If to be sterilized, air or towel dry.	Instruments/Equipment	Decontamination
Instruments for voluntary sterilization and Norplant	Soak in 0.5% chlorine solution for 10 minutes prior to cleaning. (Rinse or wash immediately. ²)	Using a brush, wash with detergent and water, removing all particles. Rinse with clean water, air or towel dry.	Acceptable ³ : Boil or chemically HLD as above.	Preferable: Dry heat for 1 hour after reaching 170°C (340°F) ⁴ , or Autoclave at 121°C (250°F) and 106 kPa (15 lbs/in ²) for 20 minutes (30 minutes if wrapped).

Needles and syringes	Soak in 0.5% chlorine solution for 10 minutes prior to cleaning. (Rinse or wash immediately. ²)	Disassemble, then wash with detergent and water, removing all particles. Rinse with clean water, air or towel dry syringes (only air dry needles).	Acceptable ³ : Boil or chemically HLD as above. Place items that float in a weighted, porous bag.	Preferable: Dry heat for 2 hours after reaching 160°C (320°F) ⁴ , or Autoclave at 121°C (250°F) and 106 kPa (15 lbs/in ²) for 20 minutes (30 minutes if wrapped).
Storage containers for instruments	Soak in 0.5% chlorine solution for 10 minutes prior to cleaning. (Rinse or wash immediately. ²)	Wash with detergent and water, removing all particles. Rinse with clean water, air or towel dry.	Boil container and lid as above. If container is too large, then: Fill container with 0.5% chlorine solution and soak for 20 minutes. Rinse with water which has been boiled for 20 minutes and air dry before use. Re-disinfect weekly, when empty or contaminated.	Dry heat for 2 hours after reaching 170°C (340°F) ⁴ , or Autoclave at 121°C (250°F) and 106 kPa (15 lbs/in ²) for 20 minutes (30 minutes if wrapped). Re-sterilize weekly, when empty or contaminated.
IUDs and inserters (never reuse)	Not necessary	Not necessary	Not recommended. (If bulk packaged, before insertion chemically disinfect with: 8% formaldehyde, or a glutaraldehyde, and rinse well in water which has been boiled for 20 minutes.)	Most IUDs come in sterile packages. Discard if package seal is broken.
Norplant implants (never reuse)	Not necessary	Not necessary	Never acceptable	Implants come in sterile packages. Discard if package seal is broken.
Endoscopes (laparoscopes)	Wipe exposed surfaces with gauze pad soaked with 60-90% alcohol; rinse immediately.	Disassemble, then wash with detergent and water removing all particles. Rinse with clean water, towel dry.	Soak for 20 minutes in: 8% formaldehyde, or a glutaraldehyde, and rinse in water which has been boiled for 20 minutes.	Sterilize daily if possible, using chemical sterilization. Soak in: 8% formaldehyde for 24 hours, or a glutaraldehyde for 10 hours. Rinse with sterile water or water which has been boiled for 20 minutes.

¹ If item to be sterilized is unwrapped, use immediately; if wrapped, may be stored up to 1 week prior to use.

² Avoid prolonged exposure to chlorine solution in order to minimize corrosion of instruments and deterioration of rubber or cloth products.

³ If sterilization (dry heat or autoclave) not available, these items can be HLD either by boiling or soaking in a chemical disinfectant.

⁴ Instruments with cutting edges or needles should not be sterilized at temperatures above 160°C, in order to prevent dulling.

Source: Tietjen, L., Cronin, W., McIntosh, N., Infection Prevention for Family Planning Service Programs, JHPIEGO, Baltimore, MD, 1992.

Instruments, Gloves, and Equipment Processing Checklist

STEP/TASK	CASES		
DECONTAMINATION			
1. Put on utility gloves or leaves on surgical gloves post-procedure.			
2. Place all instruments in chlorine solution for 10 minutes immediately after completing the procedure.			
3. Dispose of waste material in leak-proof container, following guidelines.			
4. Decontaminate exam or table or other surface contaminated during the procedure by wiping them with 0.5% chlorine solution.			
5. Remove instruments/gloves from chlorine solution after 10 minutes and place them in water.			
6. Clean instruments/gloves immediately (GO TO CLEANING SECTION) or continue to soak in water until cleaning can be done.			
7. Remove reusable gloves by inverting and soaking in 0.5% chlorine solution for 10 minutes. (If wearing utility gloves, do not remove until instrument cleaning is finished.)			
CLEANING (INSTRUMENTS)			
1. Place instruments in a basin with clean water and mild, non-abrasive detergent.			
2. Completely disassemble instruments and/or opens jaws of jointed items.			
3. Wash all instrument surfaces with a brush or cloth until visibly clean (hold instruments under water while cleaning).			
4. Thoroughly clean serrated edges (e.g., jaws of hemostat) of instruments, using small brush.			
5. Rinse all surfaces thoroughly with clean water.			
6. Towel-dry instruments or allows them to air dry.			
7. Towel-dries reusable gloves or allows them to air dry.			
8. Remove utility gloves and allow them to air dry.			
HIGH-LEVEL DISINFECTION BY BOILING			
1. Completely submerge pre-cleaned items in water.			
2. Place items that float in a netted bag with a weight to submerge.			
3. Places lid over boiling pot and brings water to a gentle, rolling boil.			
4. Start timing when rolling boil begins.			
5. Keep at rolling boil for 20 minutes.			
6. Remove items with HLD forceps/pickups.			
7. Use immediately after air drying or place in covered, dry HLD container.			
HIGH-LEVEL CHEMICAL DISINFECTION			
1. Prepare fresh solution of chemical sterilizant or check to be sure solution is not out of date.			
2. Cover container and soak for 20 minutes (2% glutaraldehyde or 8% formaldehyde).			
3. Remove items from chemical solution using HLD gloves or HLD forceps/pickups.			
4. Rinse items thoroughly with HLD (boiled) water to remove all traces of chemical disinfectant.			
5. Use items immediately or place in HLD, covered container.			
PACKAGING OF EQUIPMENT FOR STERILIZATION			
1. Arrange instruments in trays or on cloth wrap, using appropriately cleaned material.			
2. Wrap items using envelope or square wrap technique.			
3. Place packs in drums or trays for autoclaving.			
4. Place items in metal container with lid for dry heat.			

STERILIZATION BY AUTOCLAVE			
1. Arrange packs and loose items in autoclave chamber to allow free circulation and penetration of steam to all surfaces.			
2. Sterilize for 30 minutes for wrapped items, 20 minutes for unwrapped items (times with clock) at 121°C (250°F) and 106 kPa (15 lbs/in ²).			
3. Wait 20 - 30 minutes (or until pressure gauge reads zero) to open lid to allow steam to escape. Allow packs to dry completely before removal.			
4. Place sterile drums or packs on a surface padded with paper or fabric to prevent condensation.			
5. Allow drums or packs to reach room temperature before storing.			
6. Record sterilization conditions (time, temperature, and pressure) in logbook.			
STERILIZATION BY DRY HEAT (OVEN)			
1. Put loose instruments in metal containers and packs on trays; then place items in oven and heats to desired temperature.			
2. Begin timing after desired temperature is reached and keep this temperature for the recommended time.			
3. After cooling, remove packs and loose items with sterile forceps or pickups and store in sterile covered containers.			
CHEMICAL STERILIZATION			
1. Prepare fresh solution of chemical sterilizant or check to be sure solution is not out of date.			
2. Immerse cleaned and dried items in 2% glutaraldehyde or 8% formaldehyde solution, completely covering all items.			
3. Cover container and soak for appropriate time (8 - 10 hours for glutaraldehyde or at least 24 hours for formaldehyde).			
4. Remove items from the chemical solution using sterile gloves, sterile forceps or pickups.			
5. Rinse items thoroughly with sterile water to remove all traces of chemical sterilizant.			
6. Use the item immediately or places it in a sterile, covered container.			

Syringe and Needle Processing Checklist

TASK/ACTIVITY	CASES		
DECONTAMINATION			
1. Leave on gloves after surgical procedure.			
2. Leave needle attached to syringe.			
3. Fill syringe with 0.5% chlorine solution by drawing up through needle.			
4. Covers syringe and needle with chlorine solution and soaks for 10 minutes.			
CLEANING			
1. Puts on utility gloves and expels chlorine solution from syringe and needle.			
2. Check to be sure needle is not blocked, then disassembles and cleans with soapy water.			
3. Re-assemble and rinses syringe and needle by filling and expelling clean water 3 times.			
4. Check to be sure that needle and/or syringe are not damaged.			
5. Detach needle from syringe.			

High-Level Disinfection of Gloves by Boiling/Steaming:

After gloves have been decontaminated and thoroughly washed and dried, they are ready for HLD by steaming.

- a. Fold up cuffs so that gloves can be put on easily and without contamination after HLD.
- b. Place gloves in a pan with holes in the bottom. To make removal from the pan easier, cuffs should be facing outward toward the edge of the pan. Five to 15 pairs can be put in each pan, depending on the size (diameter) of the pans.
- c. Repeat this process until up to three steamer pans have been filled with gloves. Stack the filled steamer pans on top of a pan containing water for boiling. A second empty pan without holes should be placed on the counter next to heat source (see step i).
- d. Place a lid on the top pan and **bring the water to a full rolling boil**. (When water only simmers, very little steam is formed, and the temperature may not get high enough to kill microorganisms. Steam needs to be coming out of the top pan at all times.)
- e. Reduce the heat so that the water continues to boil at a rolling boil. (When water boils too violently, it evaporates quickly and wastes fuel.)

Note: Be sure there is **sufficient water** in the bottom pan **for the entire 20 minutes of steaming**.

- f. When steam begins coming out between the pans, start a timer or note the time on a clock and record the time in an HLD log.
- g. Steam the gloves for 20 minutes.
- h. Remove the top steamer pan and place a cover on the top pan remaining on the stack. Gently shake excess water from the gloves in the pan just removed.
- i. Place the pan containing the gloves on the second (empty) pan (see step c).

Note: Do not place pans containing gloves on a table top, counter, or other surface which can contaminate it.

- j. Allow the gloves to air dry in the steamer pans (four to six hours) before using. Gloves which were removed from steamer pan(s) to be used "wet" or "damp," but were not used during the clinic session should be reprocessed before using.
- k. Using a high-level disinfected forceps, transfer the dry gloves to a dry, high-level disinfected container with a tight-fitting lid. **Store for up to one week**. (Gloves can also be stored in the stacked and covered steamer pans.)

Note: If only a boiler/steamer with a single tray is available, the same process may be used. The gloves will have to be air dried on the single steamer tray.

Sterilizing Gloves:

- a. Gloves to be steam-sterilized should be packaged before the procedure.
- b. When packaging gloves, roll up the cuff so the gloves can be put on without contamination.
- c. Put gauze or paper inside the glove and under the fold of the cuff. This will ensure optimum steam penetration.
- d. Place the packaged gloves in a wire basket on their sides with thumbs up in a rack to allow steam to penetrate the lower piles, not piled on top of each other, in order to allow optimum steam penetration.
- e. Autoclave at 121°C (250°F) for 30 minutes.
- f. **After autoclaving, do not use the gloves for at least 24 hours.**

High-Level Disinfection

Recommended Dilutions of Chlorine-Releasing Compounds

	Dirty condition (e.g., blood spills, soiled equipment), or Dilution Made With Contaminated Water	Clean Condition (e.g., cleaned medical equipment)
Available Chlorine Required	0.5% (5g/liter, 5000 ppm)	0.1% (1 g/liter, 1000 ppm)
Sodium Hypochlorite Solution	See Table on Following Page	20 ml/liter, if starting with 5% available Chlorine
Calcium Hypochlorite (70% available chlorine)	7.0 g/liter	1.4 g/liter
nada (60% available chlorine)	8.5 g/liter	1.7 g/liter
NaDCC-Based Tablets (1.5 g of available chlorine per tablet)	4 tablets/liter	1 tablet/liter
Chloramine (25% available chlorine)	20 g/liter ¹	20 g/liter ¹

¹ Chloramine releases chlorine at a slower rate than do hypochlorites. Therefore, a higher available chlorine concentration is required of chloramine solutions for the same effectiveness. On the other hand, chloramine solutions are not inactivated by biological materials (e.g., protein and blood) to the same extent as hypochlorites. Therefore, a concentration of 20 g/liter (0.5% available chlorine) is recommended for both clean and dirty conditions.

Source: Guidelines on Sterilization and Disinfection Methods Effective Against Human Immunodeficiency Virus (HIV), 2nd. ed., Geneva, WHO AIDS Series 2, 1989.

Recommended Dilutions of Sodium Hypochlorite (Bleach)

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

Brand of Bleach	Percent Available Chlorine	Dilution Necessary to Achieve 5000 Ppm = 0.5% = 5 g/l Concentration (for blood spills, soiled equipment)
	3.5%	1 part bleach to 6 parts water
Household bleach (Odex, Chlorox)	5%	1 part bleach to 9 parts water
Household bleach (Hypex)	6%	1 part bleach to 11 parts water
	8%	1 part bleach to 15 parts water
Chloros (UK), Lejia (Peru)	10%	1 part bleach to 19 parts water
	15%	1 part bleach to 29 parts water

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

Source: Tietjen, L., Cronin, W., McIntosh, N., Infection Prevention for Family Planning Service Programs, JHPIEGO, Baltimore, MD, 1992.

Preparing and Using Chemical Disinfectants

Disinfectant (Common Solution or Brand)	Effective Concentration	How to Dilute	Skin Irritant	Eye Irritant	Respiratory Irritant	Corrosive	Leaves Residue	Time Needed for HLD	Time Needed for Sterilization	Activated Shelf Life ¹
Alcohol: Ethyl/isopropyl/ "Methylated spirit"	60 - 90%	Use full strength	Yes (can dry skin)	Yes	No	No	No	Do not use ²	Do not use	Change weekly; daily if heavily used; sooner if cloudy
Chlorine	0.5%	Dilution procedures vary ³	Yes (with prolonged contact)	Yes	Yes	Yes	Yes	20 minutes	Do not use	Change daily; sooner if cloudy
Formaldehyde (35-40%)	8%	1 part 35-40% solution to 4 parts boiled water	Yes	Yes	Yes	No	Yes	20 minutes	24 hours	Change every 14 days
Glutaraldehyde: Cidex	Varies	varies: read instructions on container	Yes	Yes; vapor	Yes	No	Yes	20 mins. at or above 25°C	10 hours for Cidex	Change every 14 days ⁴ ; sooner if cloudy
Hydrogen Peroxide (30%)	6%	1 part 30% solution to 4 parts boiled water	Yes	Yes	No	Yes	No	20 minutes	Do not use	Change daily; sooner if cloudy
Iodophors (10% povidone iodine--PVI)	Approx. 2.5%	1 part 10% PVI to 3 parts water	No ⁵	Yes	No	Yes	Yes	Do not use ²	Do not use	Change daily

–

¹ All chemical disinfectants are heat- and light-sensitive and must be stored appropriately.

² Alcohols and iodophors are not HLDs; however, they can be used as intermediate-level disinfectants. For this purpose, soak for 20 minutes.

³ See Participant Handouts #14-15 for instructions on preparing chlorine solutions.

⁴ Different commercial preparations of Cidex and other glutaraldehydes (e.g., Wavicide) are effective at lower temperatures (20°C) and have a longer activated shelf life (always check manufacturer's instructions).

⁵ Except in people with allergies to iodophors.

Source: Tietjen, L., Cronin, W., McIntosh, N., Infection Prevention for Family Planning Service Programs, JHPIEGO, 1992.

Job Aids for Infection Prevention

Preparing 0.5% Chlorine Solution from Bleach (Sodium Hypochlorite)		
Brand of Bleach	% Chlorine Available	How to Dilute to an 0.5% Solution
	3.5%	1 part bleach to 6 parts water
Odex, Chlorox	5. %	1 part bleach to 9 parts water
Hypex	6. %	1 part bleach to 11 parts water
	8. %	1 part bleach to 15 parts water
	10. %	1 part bleach to 19 parts water
	15. %	1 part bleach to 29 parts water
Comprehensive Postpartum Project		Pathfinder International

Procedure for Decontamination of Equipment
<ol style="list-style-type: none"> 1. Have adequate ventilation in the room. 2. Wear protective utility gloves. 3. Immediately after a procedure, place instruments in a 0.5% chlorine solution. 4. Items should be completely covered by the solution. 5. Items should remain in the solution for 10 minutes only. Items may rust if left longer. 6. Remove items, rinse, and clean.
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Procedure for Cleaning Equipment

1. Wear clean protective gloves and a protective apron.
2. After decontamination, rinse items in water, opening and disassembling them when possible.
3. Submerge them in a basin with detergent and water. Make suds as you would for dishes.
4. Use brushes, both a medium sized brush and a tooth brush to remove soiled matter, paying attention to the interior and hinged areas.
5. Rinse thoroughly with water.
6. Dry by air or clean towels before further processing
7. Maintain cleaning supplies and equipment in dry, clean condition.

Comprehensive Postpartum Project

Pathfinder International

Procedures for Sterilization Using an Autoclave

1. Decontaminate, clean and dry instruments to be sterilized.
2. Open and disassemble the items as much as possible for best steam penetration.
3. Wrap needles and sharp edges in gauze to prevent dulling them.
4. Strictly follow the directions supplied by the manufacturer for operation of the autoclave.
5. instruments tightly together with rubber bands or by other means.
6. Arrange the packs so air can circulate and steam can penetrate all surfaces.
7. Begin operation of the autoclave.
8. The temperature should be at 121°C, the pressure should be at 106kPa or 15 lbs./in². Once the temperature and pressure have been reached, sterilize wrapped items for 30 minutes or unwrapped for 20 minutes.
9. After the adequate length of time, turn off the autoclave and wait 20-30 minutes until the pressure gage reaches zero. As soon as it reaches zero open the lid and allow the packs to dry completely (about 30 minutes).
10. Remove packs and store on sterile trays padded with paper or cloth.
11. Packs may be stored up to one week if kept dry. They may be stored up to one month if sealed in a plastic bag and dated. Unwrapped items must be used the same day.

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Procedure for Sterilization Using a Dry Heat Oven

1. Decontaminate, clean and dry instruments.
2. Wrap instruments in cotton or foil, or place in a lidded container. Wrapping is not absolutely necessary, but it prevents recontamination before use.
3. Place instruments in the oven and heat.
4. Begin timing **only after the desired temperature has been reached.**
5. temperatures should be one of the following:
 - 170°C for 60 Minutes
 - 160°C for 120 Minutes
 - 150°C for 150 Minutes
 - 140°C for 180 Minutes
 - 121°C overnight
6. After cooling, remove loose items with dry sterile forceps/pickups and store in sterile covered containers up to one week. If instruments are not used often, sterilize just before use.

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Use of Antiseptic Solutions

Antiseptic Solution	Use for Surgical Handscrub?	Use for Skin Prep?	Use on Mucous Membranes?	Comments
Alcohols (60-90% ethyl or isopropyl)	Yes	Yes	No	Never use on mucous membranes. For skin prep., let alcohol dry before injection
Chlorhexidine 4% (Hibitane, Hibiscrub, Hibiclens) • See Note	Yes	Yes	Yes	Has good persistent effect. Remains active for 6 hours.
Aqueous Iodine Preparations or Iodine and Alcohol (Tincture of Iodine)	No	Yes	No	Never use on mucous membrane. Fast acting. Can apply in excessive amounts.
Iodophors (povidone iodine , Betadine)	Yes	Yes	Yes	Less irritating than iodine. Effective 1-2 minutes after application

- Note: Savlon, which contains chlorhexidine, is not listed because the concentration of chlorhexidine varies from as little as 1% to 4%.
Dettol, (Para-chloro-meta-xyleneol) also varies widely in strength and is less effective than chlorhexidine and iodophors.

PROPER WASTE DISPOSAL

**To prevent the spread of infection and prevent accidental injury
to clinic personnel who handle the waste and to the local community**

Important Steps

1. Dispose of all sharp objects in a puncture-resistant container such as an IV bottle. The container may be partially filled with 0.5% chlorine to add additional protection from infection.
2. To avoid accidental needlesticks
3. Dispose of container by dumping.
4. Dispose of liquid contaminated waste (blood, feces, urine and other body fluids) by pouring them down a utility sink drain or toilet.
5. Dispose of solid wastes (used dressings and other items contaminated by blood or organic material) in a non-corrosive washable container with a tight fitting cover. Empty containers on a regular basis and burn the contents.
6. For plastic containers containing toxic substances like Cidex rinse three times with water and bury the container. Never reuse the container for other purposes.
7. Always dispose of medical waste correctly, never simply throw it outside or leave it in an open pile. Make an effort to know where the waste in your hospital goes.
8. Always wear utility or heavy gloves when handling waste.
9. Always wash your hands after handling waste.

Contraceptive Methods

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IUD Protocols

IUD Protocol

Basic Principles for IUD Insertion and Removal

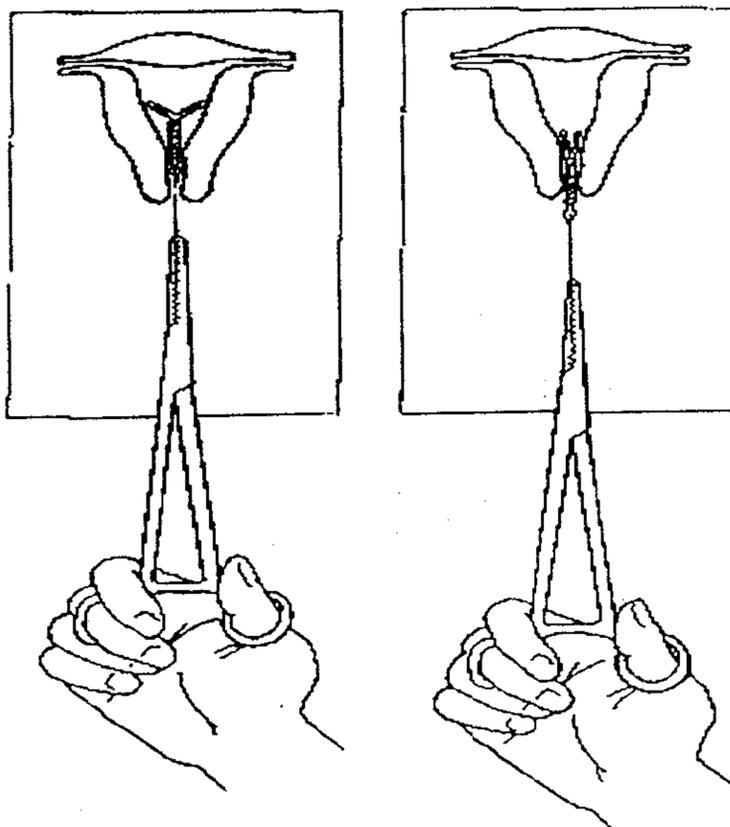
Participants will achieve this objective through a variety of training methodologies. The step-by-step IUD insertion and removal sequence is found in *Participant Handout 2.10*. The JHPIEGO video on IUD insertion and removal also details the procedure.

Throughout the IUD insertion and removal training, **certain basic principles** are to be emphasized:

- **Gentle techniques** to minimize discomfort and emotional trauma to the client. In order to perform a comfortable IUD insertion, force is neither necessary nor desirable.
- **No-touch technique**, in which the tip of the uterine sound that will touch the upper genital tract will not have previously touched anything that may contaminate it: hands, speculum, vagina, table top, etc.
- As already indicated in Specific Objective #2, the TCu is loaded using the no-touch technique, inside package.
- The cervix and vagina should be thoroughly prepped with antiseptic. Use a water-based antiseptic such as an iodophor (Betadine® or Povidone Iodine) or Chlorhexidine (Hibitane®).

Note: *If an Iodophor is used, wait one or two minutes before proceeding because iodophors take up to two minutes contact time to release free iodine.*

- The uterine cavity should always be sounded to confirm the position of the uterus and the depth of the cavity.
- Set the depth gauge on the IUD to the level on the uterine sound.
- Insert the IUD high in the fundus of the uterus by withdrawal technique, as there is less risk of expulsion.



Sounding the uterus is recommended for all copper IUDs inserted by the "withdrawal" technique, in order to ensure high fundal placement.

Purpose of Sounding the Uterus

- To check the position of the uterus and check for obstructions in the cervical canal.
- To measure the direction of the cervical canal and uterine cavity, so that the inserter can be shaped appropriately to follow the canal.
- To measure the length from external cervical os to the uterine fundus so that the blue depth gauge on the insertion tube (TCu 380A IUD) can be set at the same distance, so that the IUD will be placed high in the uterine fundus.

Procedure for Sounding the Uterus

Use gentle, no-touch (aseptic) technique throughout:

Note: *Before attempting to sound the uterus, a screening speculum and bimanual exam should have been performed to rule out the possibility of vaginal and cervical infection and to determine the size of the uterus.*

Step 1: Put on **high-level disinfected or sterile** gloves.

Step 2: Insert the speculum. Thoroughly clean the cervix with an antiseptic solution e.g., Chlorhexidine Gluconate (Hibiclens®, Hibiscrub®, Hibitane® or Savlon® note: concentration of Savlon® may vary) or iodophors (Povidone Iodine, Betadine®, Wesodyne®).

Step 3: Apply the HLD or sterile tenaculum at the 10 and 2 o'clock positions on the cervix. Close tenaculum **one notch at a time**, slowly, and no further than necessary.

Step 4: Pick up the handle of the sound, do not touch the tip. Turn the sound so that it is in the same direction as the uterus. Gently pass HLD or sterile tip of the uterine sound into the cervical canal. At the same time keep a firm grip with the tenaculum. (Be careful not to touch walls of the vagina with tip of sound.)

Carefully and gently insert the uterine sound in the direction of the uterus while gently pulling steadily downwards and outward on the tenaculum. If there is resistance at the internal os, use a smaller sound, if available. Do **not** attempt to dilate the cervix unless well qualified. **Gentle** traction on the tenaculum may enable the sound to pass more easily. **If client begins to show symptoms of fainting or pallor with slow heart rate, STOP.**

Step 5: Slowly withdraw the sound, it will be wet and darker where it was in the uterus. Place the sound next to the IUD and set the blue depth gauge at the depth of the uterus.

Step 6: Apply the (one or two-toothed) tenaculum at the 10 and/or 2 o'clock positions on the cervix.

Note: *The tenaculum should be used by all persons learning to do IUD insertions. Very experienced clinicians may find a tenaculum is only needed when the fundus is flexed sharply, or when the internal os is partially stenosed.*

Gently pull either the anteverted or retroverted uterus toward you with constant smooth traction on the tenaculum, in a downward and outward direction.

Step 7: Gently pass the sterile tip of the uterine sound into the cervical canal while maintaining traction with the tenaculum. If there is an obstruction at the level of the os, use a smaller sound if available.

Insert the sound carefully and gently into the uterine cavity while pulling steadily downwards and outwards on the tenaculum. From the bimanual exam, you know the general direction of the uterus, so direct the sound gently toward where you expect the fundus to be.

Gently exerting traction on the tenaculum may enable the sound to pass more easily. If the client begins to show symptoms of fainting, or pallor with slow heart rate, **STOP**.

Step 8: When a slight resistance indicates that the tip of the uterine sound has reached the fundus, note the present direction of the uterine cavity, and remove the sound. Let go of the tenaculum, but leave it attached to the cervix.

Step 9: Determine the length of the uterus by noting the mucus and or blood on the sound. The average uterus will sound to a depth of 6 to 8 centimeters (cm). **Do not attempt to insert an IUD into a uterus that measures 6.0 cm or less in depth.**

If the uterus sounds to a depth of 10 cm or more, the sound may have perforated the uterus, or the uterus may be enlarged due to tumors or pregnancy. DO NOT inset an IUD. If perforation is suspected, observe the client in the clinic carefully:

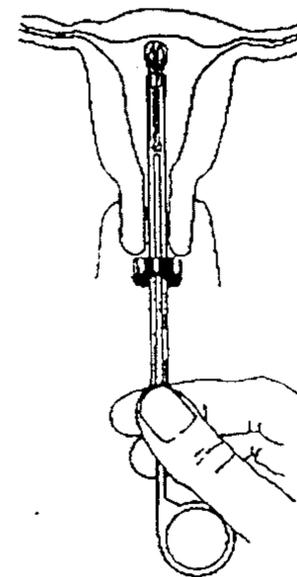
- a) For the first hour, keep the woman at bed rest and check the pulse and BP every 5 to 10 minutes.
- b) If the woman remains stable after one hour, check the hematocrit/hemoglobin if possible, allow her to walk, check vital signs as needed, and observe for several more hours. IF she has no signs or symptoms, she can be sent home, but should avoid intercourse for two weeks. Help her make an informed choice of a different contraceptive.
- c) IF there is a rapid pulse and falling blood pressure, or new pain or increasing pain around the uterus, hospitalization is needed.

Source: INTRAH. *Guidelines for Clinical Procedures in Family Planning: A Reference for Trainers*. Chapel Hill, North Carolina: INTRAH, 1993 (Chap.7).

Step 1: Grasp the tenaculum (which is still in place on the cervix after sounding the uterus) and pull firmly to pull the uterine cavity and cervical canal in line with the vaginal canal. Gently place the loaded inserter tube through the cervical canal. Keep the blue depth-gauge in a horizontal position.

Advance the loaded IUD until the blue depth-gauge touches the cervix or resistance of the uterine fundus is felt. Keep the blue depth-gauge in a horizontal position.

Figure 9



Step 2: Hold the tenaculum and the white rod in place in one hand. With your other hand, withdraw (pull toward you) the inserter tube until it touches the thumb grip of the white rod. This will release the arms of the Copper-T 380A high in the uterine fundus.

Step 3: Once the arms have been released, again very gently and carefully push the inserter tube upward, toward the top of the uterus, until you feel a slight resistance.

This step ensures that the arms of the T are as high as possible in the uterus.

Hold the inserter tube still while removing the white rod.

Step 4: Gently and slowly withdraw the inserter tube from the cervical canal. The strings should be visible protruding from the uterus. Cut the strings so that they protrude only 3-4 cm into the vagina.

Remove the tenaculum. If the cervix is bleeding from the tenaculum site, press a swab to the site, using clean forceps, until the bleeding stops.

Figure 10

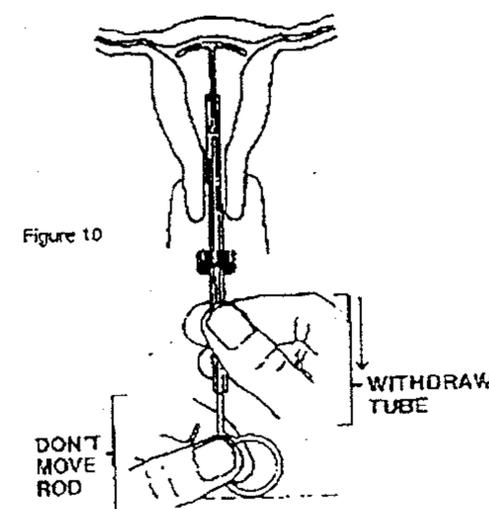
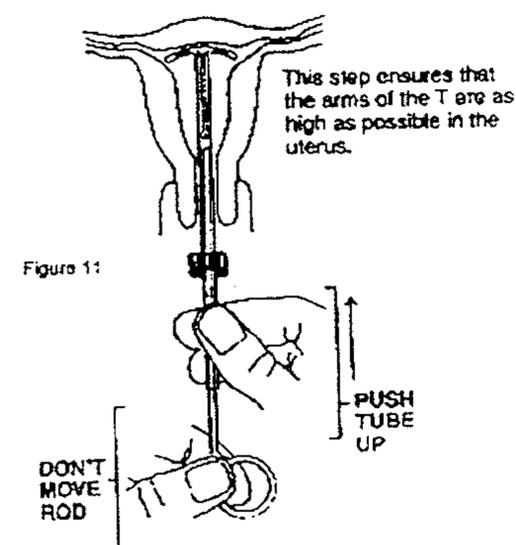
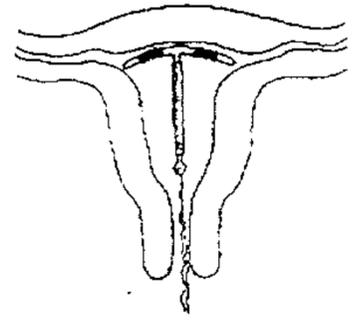


Figure 11



Step 5: Help the client to get up from the table very slowly. Watch her in case she gets dizzy or feels faint. Teach her how and when to check the strings. Ask her to check the strings now. Ask her if she has any questions and answer them in simple words she can understand. Tell her to return in 3-6 weeks. If she can read, give her written instructions or tell her the warning signs of problems and how to get help if she needs it.

Figure 12



Source: The Population Council and The Program for Appropriate Technology in Health (PATH). *Copper T 380A IUD: A Manual for Clinicians*. 2nd ed. Seattle, Washington: PATH, 1989.

IUD Removal

The following techniques may help in the removal of IUDs :

- For routine removals, take out the IUD during menses, because it is easier then.
- To avoid breaking the string, apply gentle, Steady traction and remove the IUD slowly. If the IUD does not come out easily, sound the uterus for 30 second and then slowly rotate the sound 90 degrees.
- If you cannot remove the IUD with gentle traction, dilate the cervix with dilators (Which should always be available in a clinic managing IUD complications).
A paracervical block may be performed before cervical dilation to diminish pain the cervix may also be dilated for difficult IUD removals through use of laminaria tent. Use of a tenaculum to steady the cervix and straighten the anteversion or retroversion may assist removal.
- If you don't see the strings, probe for them in the cervical canal with narrow forceps
- When the IUD (with or with out its strings) is in the uterus, the endometrial cavity may be probed with alligator forceps (with which the strings or the IUD itself may be grasped), a hook, uterine packing forceps or a Novak curette. Proficiency at removal of the IUD with one of these instruments when the strings are absent or entirely within the uterine cavity can prevent unnecessary hospitalization.

Steps for IUD counseling and Clinical Skills

Pre Insertion Counseling

1. Greet Client in friendly and respectful manner.
2. Ask Client about her reproductive goals .
3. Determine that the client's contraceptive choice is the IUD .
4. If IUD Counseling was not done, Provides or arranges for Counseling prior to performing Procedures.
5. Review Client screening Checklist to determine if the client is an appropriate candidate for the IUD .
6. Assess client's knowledge about the IUD's major side effects.
7. Be responsive to client's needs and concerns about the IUD.
8. Describe insertion process and what to expect .

Pre Insertion

1. Obtain or review brief reproductive health history
2. Wash hands with soap and water
3. Ask client if she had emptied her bladder
4. Palpate abdomen and checks for suprapubic or pelvic tenderness and adnexal abnormalities

5. Tell client what is going to be done and encourages her to ask questions.
6. Put new examinations (disposable) or HLD or sterile (reusable) gloves on both hands.
7. Perform speculum examination.
8. Collect specimens or vaginal and cervical secretions, if indicated.
9. Perform bimanual examination .
10. Perform rectovaginal examination, if indicated .
11. Remove gloves and properly disposes (Single use) or immerses (reusable) in chlorine solution .
12. Perform microscopic examination, if indicated (and if equipment is available)
13. Wash hands thoroughly with soap and water and dries with clean cloth or allow to air dry.
14. Load Tcu 380 A inside sterile package.

IUD Insertion

15. Put new examination (disposable) or HLD or sterile (reusable) gloves on both hands.
16. Insert vaginal speculum (and vaginal wall elevator if using single - valve speculum)
17. Swab cervix and vagina with antiseptic
18. Gently grasps cervix with tenaculum or Vulsellum forceps
19. Sound uterus using no touch technique
20. Set blue depth gauge on the loaded IUD inserter to the depth on the sound
21. Insert the IUD using the withdrawal technique.
22. Cut string and gently remove tenaculum.

Post Insertion

23. Place used instruments in chlorine solution for decontamination.
24. Dispose of waste materials according to guidelines.
25. Remove reusable gloves and places them in chlorine solution .
26. Wash hands with soap and water.
27. Complete client record .

Post Insertion Counseling

28. Teache client how and when to check for string .
29. Discuss what to do if client experiences any side effects or problems .
30. Assure client that she can have the IUD removed at any time .
31. Observe client for at least 15 minutes before sending her home .

Pre Removal Counseling

1. Greet woman in friendly and respectful manner.
2. Ask client her reason for removal and answers any questions she may have .
3. Review client's present reproductive goals .
4. Describe the removal procedure and what to expect.

Removal of IUD

1. Wash hands thoroughly with soap and water and dries with clean cloth .
2. Put new examination (disposable) or HLD or sterile (reusable) gloves on both hands .
3. Perform bimanual exam .
4. Insert vaginal speculum and look at length and position of strings .
5. Swab cervix and vagina with antiseptic .
6. Grasp strings close to cervix and pulls gently but firmly to remove IUD .

Post Removal

7. Place used instrument in chlorine solution for decontamination .
8. Dispose of waste materials according to guideline .
9. Remove reusable gloves and place them in Chlorine solution .
10. Wash hands with soap and water .
11. Record IUD removal in client record .

Post removal counseling

12. Discuss what to do if client experiences any problems .
13. Counsel client regarding new contraceptive method, if desired .
14. Assist client in obtaining new contraceptive method or provides temporary (barrier) method until method of choice can be started.

Norplant

13

Norplant

◆ **Input standards**

Certified doctor should be available
Trained nurse in:

- Prevention of infection
- Assisting procedures
- Counseling

◆ **Instruments**

Proper instruments should be available Template , Knife , Gauze , Gloves, Syringe, Antiseptic, Anesthetic, Sodium bicarbonate, Soap, Norplant Implant, Round plaster
See list (appendix A)

Infection Prevention

- Decontamination , soak in 0.5% chlorine solution
- Thoroughly wash and rinse (wear gloves and other protective barriers)
- Preferably sterilization
 - = autoclave 106 kpa pressure, 121 C
 - 20 mins unwrapped
 - 30 mins wrapped
 - Dry heat 170 C 60 mins
 - or 160 C 120 min or
- High level disinfecting (HLD)
 - Boil or steam, lid on for 20 min
 - Chemical, soak 20 min
 - Cool, use immediately, or store (source WHO 1990)

◆ **Implants should be approved by Ministry of Health and health care**

◆ **Counseling for FP**

- Family planning Counselor should enable a client to :
 - Explain her reproductive goals , make free informed choices about family planning and understand how to use her method of choice safely and effectively .

GATHER system should be followed

Client should be familiarized with all contraceptive methods whether in group or individual counseling

Post insertion counseling, should focus on warning signs (expulsion, redness, fever bleeding etc)

Follow up counseling

- ◆ The women should be asked if she is happy with the method and if there have been any problems since her last visit .
- ◆ She should be given specific instructions for what to do if she wants to have the Norplant implants removed at any time
- ◆ False rumors should be corrected
- ◆ Proper assessment of client, in assessing potential implant clients , clinic staff should :
 - Check client for any condition that may be a precaution for Norplant implants use
 - Evaluate clients by medical history and , if needed, physical exam, if there are special problems
 - Health conditions which clients should be asked about and which may limit the use of Norplant implant include:-

Persistent unexplained vag bleeding

Jaundice

Ca of breast, suspicious breast lumps

Taking drugs for epilepsy or tuberculosis

Be sure about not being pregnant

Client assessment checklist is advisable see Appendix B

◆ **Procedure**

Insertion

➤ According to the attached protocol.

Removal

◆ **Follow up care**

Unless there is a problem or she has questions , the client does not need to return until she has the Norplant implants removal (in 5 year) or when removal is desired or needed
Client should return to the same clinic if she has any of the following medical problems:

- Pus or bleeding at the insertion site
- Expulsion of a capsule
- Delayed menstrual period

- Heavy Vag. Bleeding
- Prolonged vaginal bleeding
- Sever lower abd. pain
- Episodes of migraine, repeated bad headaches or blurred vision
- Jaundice

Contents of Norplant

Item	Quantity
Pan	1 each
Pan cover	1 each
Trocar	5 each
Syringe, Control, 10 ml	3 each
Syringe, Hypodermic , 10 ml	3 each
Needle, Hypodermic, 22 Gauge x 1-1/2	12 (2 Packages)
Handle, Surgical knife, size # 3	3 each
Blade, Surgical, size #11	24
Forceps, Crile, Curved, 5-1/2"	1 each
Forceps, Mosquito, Halsted, Straight, 5 "	1 each
Forceps, Mosquito, Delicate, Curved, 5"	1 each

SAMPLE CLIENT ASSESSMENT CHECKLIST FOR NORPLANT IMPLANTS

If **all** of these conditions are negative (NO), and pregnancy is not suspected, the client may go directly for pre-insertion counseling and insertion of implants. Any positive response (YES), however, means that she should be evaluated further before making a final decision.

CONDITIONS	YES	NO
First day of menses more than 7 days ago	<input type="checkbox"/>	<input type="checkbox"/>
Breastfeeding and less than 6 weeks postpartum	<input type="checkbox"/>	<input type="checkbox"/>
Bleeding/spotting between periods or after intercourse	<input type="checkbox"/>	<input type="checkbox"/>
Breast cancer or lump in the breast	<input type="checkbox"/>	<input type="checkbox"/>
Abnormal yellow skin or eyes (jaundice)	<input type="checkbox"/>	<input type="checkbox"/>
Taking drugs for epilepsy (seizures) or tuberculosis	<input type="checkbox"/>	<input type="checkbox"/>

Note: Clients may not always have exact information about or recall the answers to the conditions listed above. To be as certain as possible about the accuracy of the information it may be necessary to restate the questions in several different ways. Also, health care workers should take into account any social, cultural or religious factors that might influence how the woman (and her partner) responds.

Women who have any of the following conditions may need more frequent followup care.

CONDITIONS	YES	NO
Diabetes	<input type="checkbox"/>	<input type="checkbox"/>
Hypertension (mild or severe), with or without vascular problems	<input type="checkbox"/>	<input type="checkbox"/>
Severe migraine (vascular) headaches	<input type="checkbox"/>	<input type="checkbox"/>
Depression	<input type="checkbox"/>	<input type="checkbox"/>

INSERTION

BACKGROUND

Most problems associated with **removal** of Norplant implants are due to **improper or careless insertion** (Darney and Klaisle 1995). Therefore, only trained clinicians (physicians, nurses and midwives) should insert and remove Norplant implants (Emerling et al 1993). (An experienced health care provider can insert a set of implants in 10 to 15 minutes.)

Remember: Correct insertion—with the capsules inserted just beneath the skin (subdermally)—make removals relatively trouble-free.

To further minimize postinsertion problems (e.g., infection or spontaneous expulsion), all phases of the insertion process must be performed carefully and gently, using recommended infection prevention practices (see **Chapter 5**).

The material presented in this chapter is intended to reinforce practical training and to serve as a ready reference for questions. It cannot substitute for actual practice which is absolutely necessary for the clinician to become proficient in insertion of Norplant implants.

CLIENT ASSESSMENT

In many countries, Norplant implants are inserted at the first clinic visit. Under these circumstances, to minimize the risk of problems, particularly the possibility of the client being pregnant at the time of insertion, a brief assessment of the woman's

health should be conducted (see **Chapter 4** and **Appendix B**).

TIMING OF INSERTION

Norplant implants may be inserted at any time during the menstrual cycle, when it is reasonably certain that the client is **not** pregnant or at risk of being pregnant (see **Chapter 4**). Optimal times for inserting implants are:

- during menstruation (within 7 days from onset),
- postpartum (within 4 weeks) if not breastfeeding,
- postabortion (immediately or within the first 7 days), or
- while fully breastfeeding (if after 6 weeks and before 6 months postpartum).

If the client currently is using a contraceptive method and wishes to switch to Norplant implants, timing of insertion will depend on the method being used (see **Table 6-1**). Inserting Norplant implants at these recommended times will minimize the possibility of pregnancy.

A backup barrier method should be used for at least 7 days if the client has been using no contraceptive method and insertion is done **after** day 7 of the menstrual cycle. If the client is using **another contraceptive method** and wants to switch to Norplant implants, the best time to do so is shown in **Table 6-1**.

Table 6-1. Current Contraceptive Users: Optimal Times for Switching to Norplant Implants

Current Method	When to Insert
Natural family planning or barrier methods	Before day 7 of the menstrual cycle
Combined oral contraceptives	After the last (21st) active pill and for the next 7 days
Progestin-only pill (minipill)	On the day the last pill in the pack is taken
Progestin-only (or estrogen and progestin) injectables	Any time up to the time of the next scheduled injection
IUD Users	IUD removed: Before day 7 of menstrual period
	IUD in place: Any time, but do not remove IUD for 7 days after insertion.

PREPARATION

The insertion/removal kit supplied by the United States Agency for International Development (USAID) contains all the instruments needed for insertion of implants (see **Appendix F** for contents).

It is important that the instruments be in excellent condition (e.g., the trocar and scalpel must be sharp). In addition, check that all instruments and other items have been sterilized or high-level disinfected (see **Chapter 5** and **Appendix C**).

Norplant capsules are packed in sterile, heat-sealed, paper-backed pouches. They will remain sterile for the duration of the labeled 5-year shelf life as long as they are not damaged and are stored away from moisture and excessive heat.

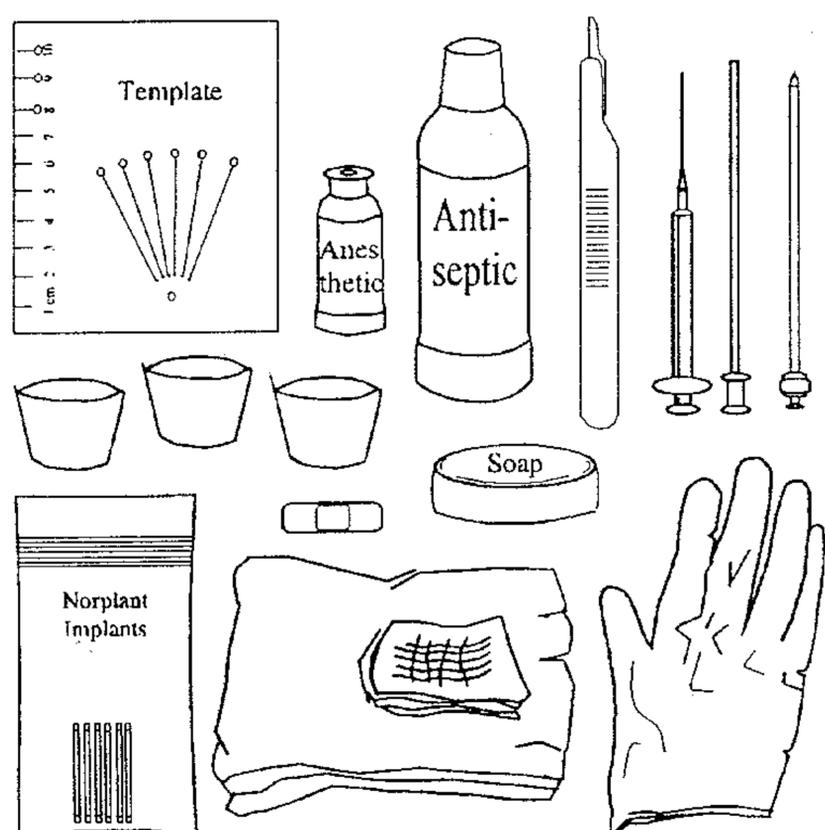
The following equipment and instruments are recommended for each insertion (**Figure 6-1**):

- examining table for the woman to lie on;

- arm support or side table;
- soap for washing the arm;
- set of six capsules in sterile pouch;
- sterile (or clean), dry surgical drape;
- three sterile (or high-level disinfected) bowls (one for the antiseptic solution, one for cotton balls soaked with boiled or sterile water to remove talc from gloves and one to hold capsules);
- pair of sterile (or high-level disinfected) surgical gloves;
- antiseptic solution;
- local anesthetic (1% concentration **without** epinephrine);
- syringe (5 or 10 ml) and 2.5 to 4 cm (1 to 1½ inches) long needle (22 gauge);
- #10 trocar with plunger;

- scalpel with #11 blade;
- plastic template for marking position of capsules in fan like pattern;
- ordinary bandaid or sterile gauze with surgical tape;
- sterile gauze and compresses; and
- epinephrine for anaphylactic shock (readily available for emergency use).

Figure 6-1. Basic Materials for Insertion



Adapted from: Population Council 1990.

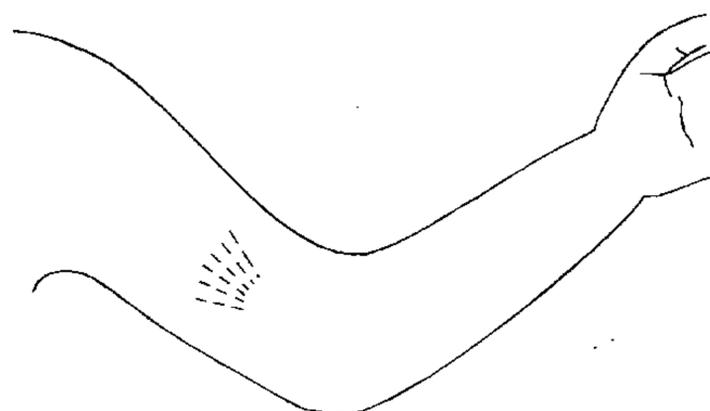
GENERAL PROCEDURE

The capsules should be placed beneath the skin on the inner aspect of the upper arm (Figure 6-2). (The arm that the woman uses less should be selected.)

First, have the client wash her entire arm with soap and water. Then swab the inner upper arm with an antiseptic and inject the local anesthetic. Make a small, shallow

incision, which just penetrates the skin, about 8 cm (3 inches) above the elbow fold. The capsules are introduced through the incision by a specially designed 10-gauge trocar. The capsules are fed through the trocar and placed just beneath the skin (subdermally) one at a time in a fan-shaped pattern. The fan should open away from the elbow so that the two outermost capsules form an angle of about 75° (Figure 6-2).

Figure 6-2. Insertion Site



Sutures are not required to close the incision; a simple bandaid will do.

Remember: It is important that the capsules be placed subdermally. Deep placement will make removal much more difficult.

STEP-BY-STEP INSTRUCTIONS FOR INSERTION

Before starting the procedure, again check to be sure whether the client:

- is taking any drugs that would decrease the effectiveness of the Norplant implants (see Chapter 1),

TIPS FOR KEEPING A TROCAR SHARP

- Repeated use will cause the trocar to become dull; therefore, it should be examined carefully after every ten insertions.
- After use, separate the plunger from the trocar (this helps keep the trocar sharp).
- If it appears that the trocar is becoming dull, it may be sharpened in the same way that a knife or pair of scissors is sharpened, using a smooth grindstone.
- When sharpening a trocar, avoid excessive grinding that could change the angle of the point, thereby making the trocar unusable. Repeated grinding will shorten the trocar, lessening the distance to mark (2) near the tip of the trocar (Figure 6-5).
- Another problem due to repeated grinding is that the blunt end of the plunger, when fully inserted, may protrude beyond the point of the trocar. This makes insertion of the trocar under the skin more difficult. If this happens, pull back slightly on the plunger until it no longer protrudes beyond the trocar's point.
- After approximately 50 to 100 insertions, the trocar should be **replaced**, not **resharpened**.

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KEY POINTS FOR SUCCESSFUL INSERTIONS

- Select the arm the client uses less for insertion of the capsules.
- Use recommended infection prevention practices to avoid infections.
- Make sure that the capsules are placed at least 8 cm (3 inches) above the elbow fold, in the inner aspect of the arm.
- The insertion incision should be small, just penetrating the skin. Use a scalpel tip or sharp trocar to make the incision.
- Insert the trocar with plunger in place through the incision at a shallow angle, superficially and just beneath the dermis. **Never force the trocar.**
- To ensure subdermal placement, the trocar should visibly raise (tent) the skin at all times.
- Make sure the capsule is completely free of the trocar before the next one is inserted. (To avoid damaging the previous capsule, fix the position of the previously inserted capsule with your forefinger and advance the trocar slowly along the side of this finger.)
- After insertion, if a capsule tip protrudes from or is too close to the incision, it should be carefully repositioned in the correct position (i.e., 5 mm from the incision).
- Do not remove the tip of the trocar from the incision until all the capsules have been inserted **and their position checked**. This will help ensure that all six capsules are positioned correctly and inserted in a superficial plane.
- The first and sixth capsules should form an angle of about 75°.
- Draw the location of the capsules in the client's record and write a note if anything unusual happened during the insertion.

- While still wearing gloves, place all contaminated objects (gauze, cotton and other waste items) in a properly marked, leak-proof container with a tight-fitting lid or in a plastic bag.
- If **disposing** of gloves, immerse both gloved hands briefly in chlorine solution and then carefully remove gloves by turning inside out and place in the waste container.
- If **reusing** gloves, immerse both hands briefly in the chlorine solution to decontaminate the outside. Remove by turning inside out. To ensure that both surfaces of the gloves are decontaminated, place them in the chlorine solution and soak for 10 minutes.
- Wash hands thoroughly with soap and water.
- All waste material should be disposed of by burning or burying.

Client Care

- Place a note in the client's record indicating the location of the capsules and specifying any unusual events that may have occurred during insertion. (A simple drawing showing the approximate location of the six capsules in the client's arm is helpful.)
- Observe the client for at least 15 to 20 minutes for bleeding from the incision or adverse effects before sending her home. She should be given written, postinsertion care instructions if available and appropriate.

CLIENT INSTRUCTIONS FOR WOUND CARE AT HOME

- There may be bruising, swelling or tenderness at the insertion site for a few days. This is normal.
- Keep the area around the insertion site dry and clean for at least 48 hours. The incision could become infected if the area gets wet while bathing.
- Leave the gauze pressure bandage in place for 48 hours and the bandaid or surgical tape in place until the incision heals (i.e., normally 3 to 5 days).
- Routine work can be done immediately. Avoid bumping the area, carrying heavy loads or applying unusual pressure to the site.
- After healing, the area can be touched and washed with normal pressure.
- If signs of infection occur, such as fever with inflammation (redness plus heat) at the site, or if there is persistent arm pain for several days, return to the clinic.

IF INFECTION OCCURS

- Treat infections with appropriate therapy for local wound infections (see **Chapter 8**).
- If there is an abscess (with or without expulsion of any capsules), remove all capsules.

When mark (1) is reached, load the next capsule into the trocar and proceed as before (STEPS 5 - 9) until all the capsules are inserted.

STEP 11: As you proceed, in order to minimize the risk of spontaneous expulsion of a capsule, make sure that the ends of the capsules nearest you are not less than 5 mm from the incision. Also make sure the ends of each of the capsules closest to the incision (small end of the fan-like pattern) are no farther apart than the width of one capsule.

Remember: The capsules should fan out, about 15° apart, so that the angle between the outer capsules (1 and 6) forms a total angle of about 75°.

STEP 12: As you insert the six capsules one by one, try not to remove the trocar from the incision (see **STEP 10**). Preventing the trocar from coming out minimizes tissue trauma, decreases the chance of infection and shortens insertion time.

STEP 13: Before removing the trocar, palpate the capsules to make sure that all six have been inserted.

STEP 14: The tips of all the capsules should be well clear of the incision (about 5 mm). If a capsule tip sticks out of or is too close to the incision, it should be repositioned by removing the capsule and re-inserting it correctly.

STEP 15: After the sixth capsule has been inserted and the position of each checked, carefully withdraw the trocar and press down on the incision with a gauzed finger for a minute or so to stop any bleeding.

Clean the area around the insertion site with a small amount of antiseptic solution applied to a cotton or gauze swab.

PROCEDURE TO FOLLOW AFTER INSERTION OF CAPSULES

Covering the Incision

- Bring the edges of the incision together and use a bandaid or surgical tape with sterile cotton to cover the incision. **Sutures are not necessary and may increase scarring.**
- Check for any bleeding. Cover the insertion area with a dry compress (pressure dressing) and wrap gauze snugly around the arm to be sure there is no bleeding and to minimize the bruising (subcutaneous bleeding).

Waste Disposal and Decontamination

- Before removing gloves, place instruments into a container filled with 0.5% chlorine solution for decontamination (see **Appendix C** for how to make a solution from household bleach). Before immersing the needle and syringe, fill with chlorine solution. (Do not disassemble.) Separate the plunger from the trocar and immerse (dried blood makes it difficult to separate them later). Soak for 10 minutes. Rinse **immediately** with clean water to avoid discoloration or corrosion of metal items.
- The surgical drape (if used) must be washed before reuse. Place in a dry covered container and remove to the designated washing area.

Figure 6-10. Releasing the Capsule

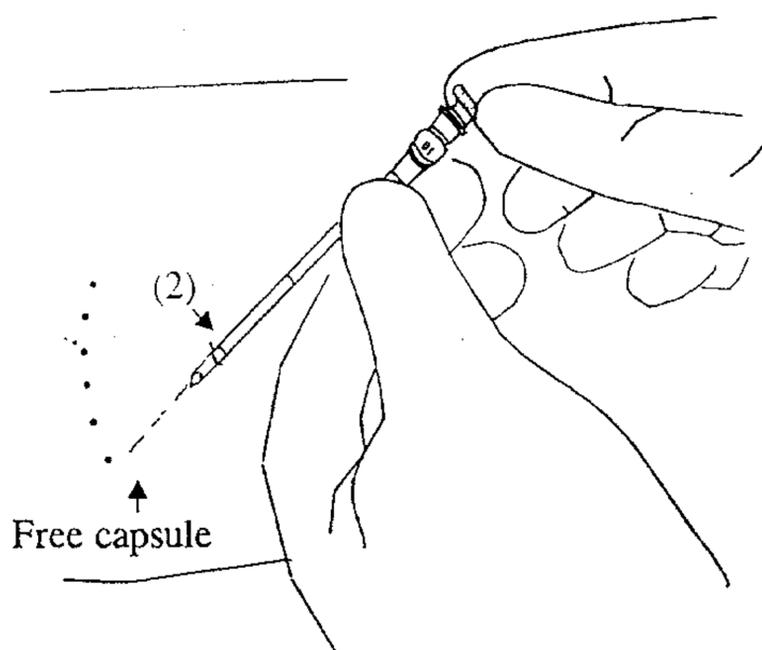
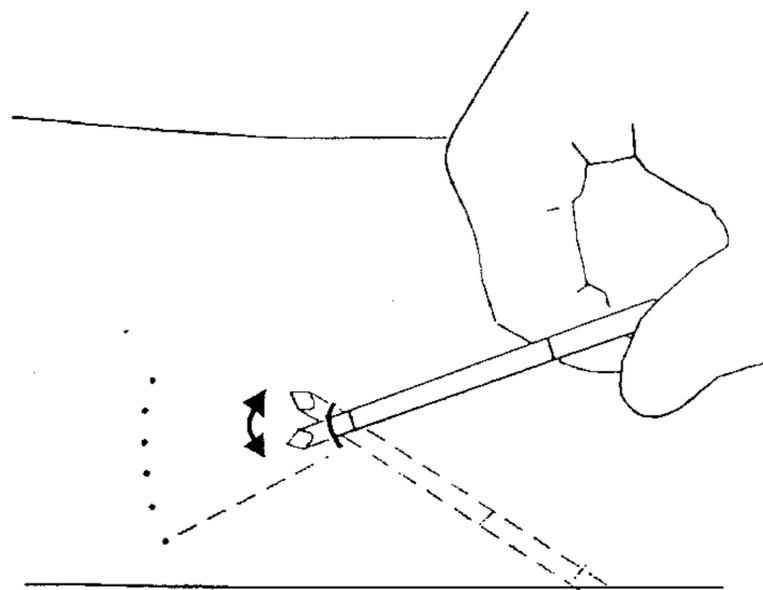


Figure 6-11. Rotating the Trocar



Then slide it over about 15°, following the fan-like placement pattern marked on the arm. To do this, first fix the position of the first capsule with a forefinger and slowly advance the trocar along the side of this finger toward mark (1) (Figure 6-12). Doing this will ensure a suitable distance between each capsule and will keep the trocar from puncturing any of the previously inserted capsules.

Note: Repeated sharpening shortens the trocar, lessening the distance to mark (2). Therefore, when using trocars which have been sharpened, be careful not to pull the trocar too far back or it will come out of the incision.

It is **important** that the capsule is free of the tip (point) of the trocar to avoid cutting it as the trocar is moved forward to insert the next capsule.

STEP 10: Without completely removing the trocar, laterally rotate the tip of the trocar to the right and back again (Figure 6-11) to be sure the first capsule is free.

Figure 6-12. Fixing the Position of the First Capsule

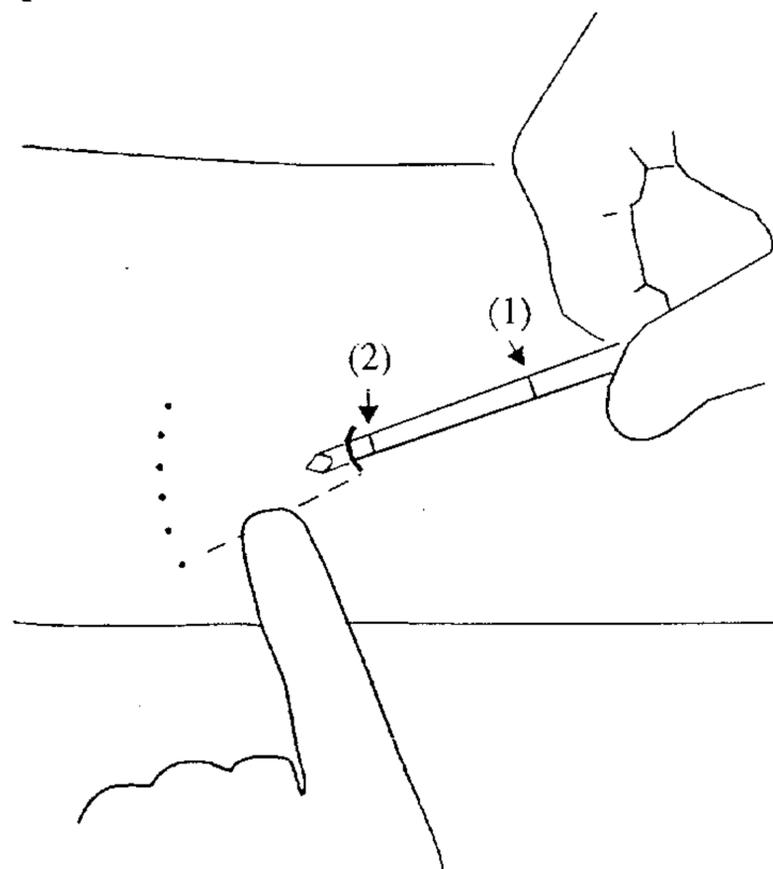
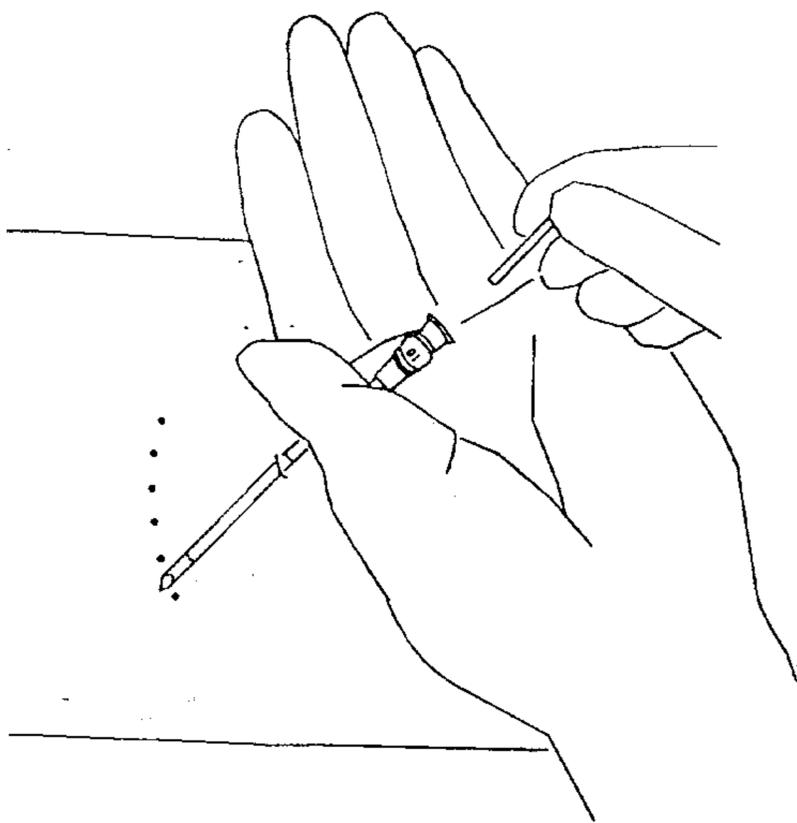


Figure 6-7. Loading the Capsule



STEP 7: Use the plunger to gently advance the capsule toward the tip of the trocar until you feel resistance—but **never force the plunger.** (Resistance should be felt when the plunger is inserted about halfway into the trocar.)

STEP 8: Hold the plunger firmly in place with one hand to stabilize it. With the thumb and forefinger, slide the barrel of the trocar back out of the incision **until** the lower mark (2) **just clears** the incision, and the hub touches the handle of the plunger (Figure 6-9). It is important to keep the plunger steady so as not to push the capsule into the tissue.

Push the capsule down to the top of the hub and reinsert the plunger (Figure 6-8).

Figure 6-8. Inserting the Plunger

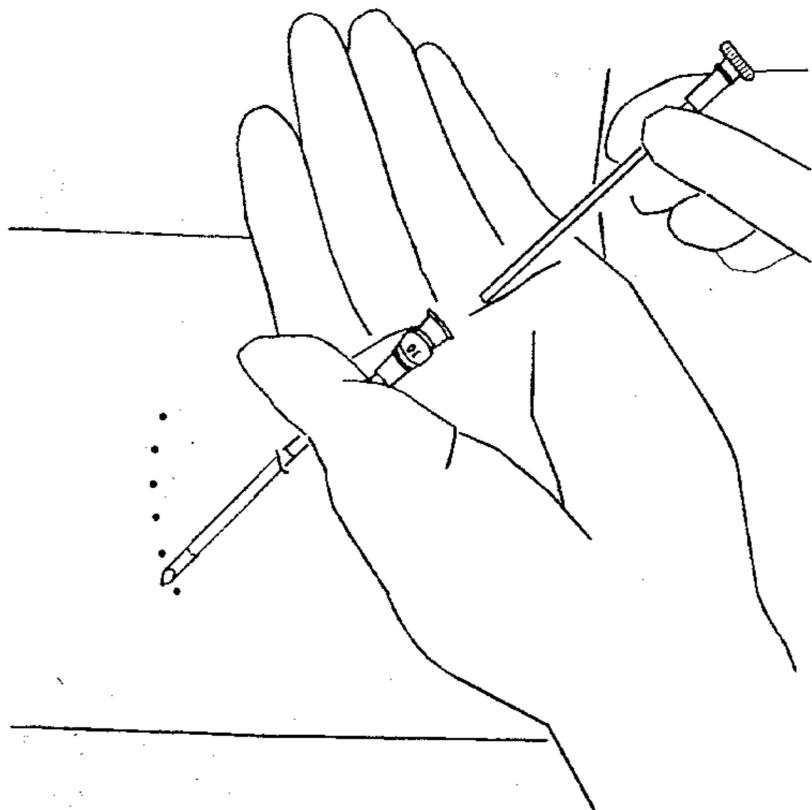
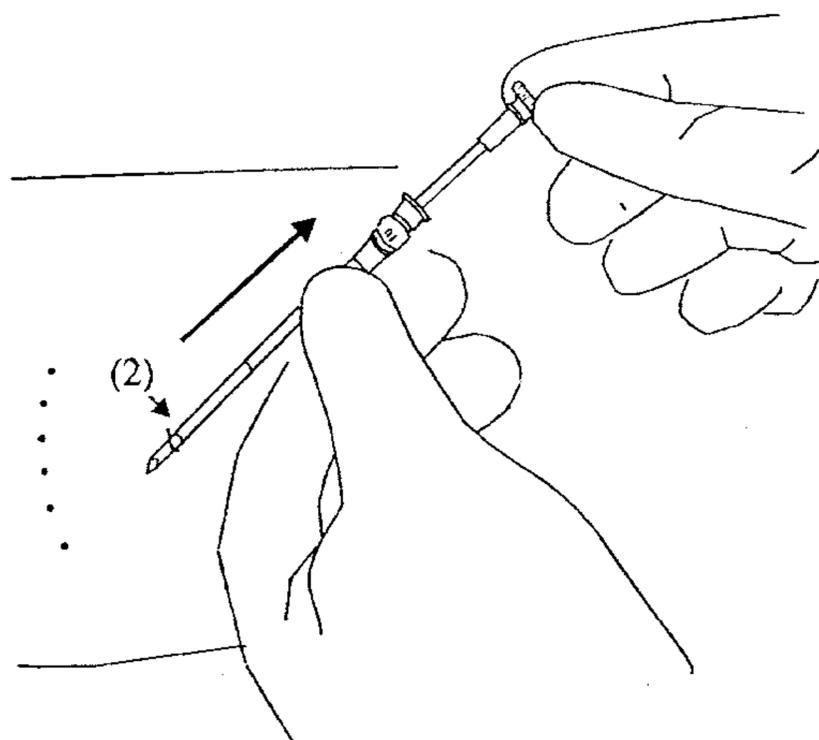


Figure 6-9. Sliding the Trocar Back



STEP 9: When the hub of the trocar touches the handle of the plunger, mark (2) should be visible in the incision and the capsule should now be lying beneath the skin, **free of the trocar** (Figure 6-10). Feel the end of the capsule with a finger to make sure it is free of the tip of the trocar.

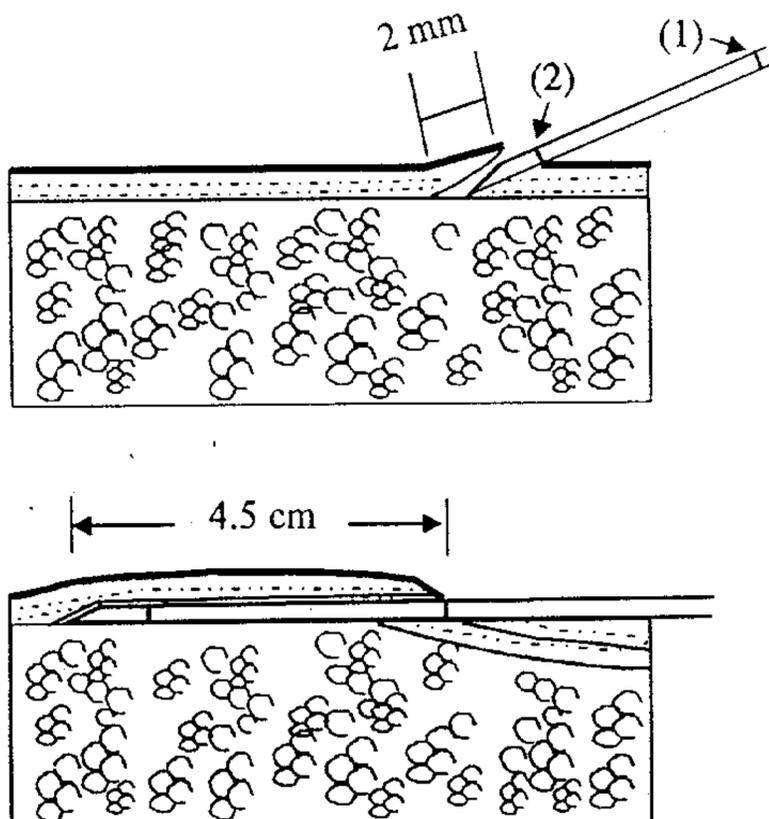
Note: Based on a recent study by Diaz et al (1991), if the trocar is **new**, it is not necessary to make a skin incision. These authors found no significant differences in pain, tenderness, edema (swelling), discoloration due to blood infiltration or scarring between an incision made by a scalpel or by the trocar directly. Added advantages of using a trocar are that it:

- eliminates the need for a scalpel, and
- prevents making an incision larger than required.

STEP 3: With the beveled tip of the trocar facing up and the plunger in place, insert the tip of the trocar through the incision at a shallow angle. Starting at either the right or the left side of the fan-like pattern, move the trocar forward, stopping as soon as the point is completely beneath the dermis (2 to 3 mm past the end of the bevel) (**Figure 6-6 upper**). **Never force the trocar.** If resistance is met, try another angle.

STEP 4: To keep the capsules on a superficial plane, tilt the trocar upward while **tenting the skin**. Advance the trocar slowly and smoothly toward mark (1) near the hub (**Figure 6-6, lower**). The trocar should be shallow enough so that it can be readily followed with a finger. **It should visibly raise (tent) the skin at all times.** Passage of the trocar will be smooth if it is in a proper, shallow plane.

Figure 6-6. Inserting the Trocar at a Shallow Angle



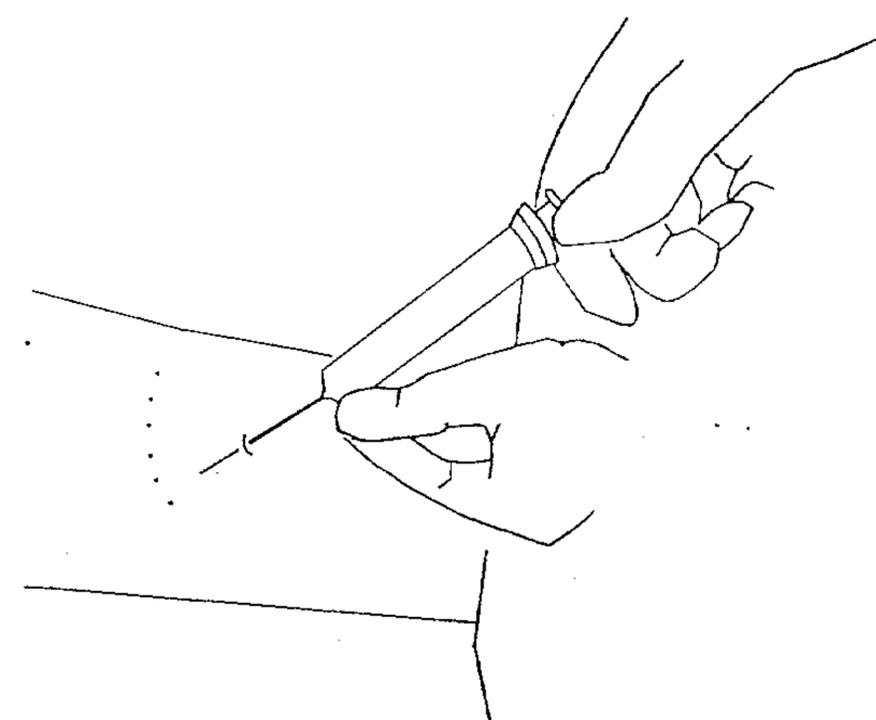
Source: Wyeth-Ayerst 1990.

Note: To avoid contaminating the trocar when inserting and pulling back on it, try not to touch it, especially the part of the barrel that goes under the skin.

STEP 5: When the trocar has been advanced as far as mark (1), remove the plunger from the trocar.

STEP 6: Load the first capsule into the trocar. The thumb and forefinger, or tweezers or forceps, may be used to pick up the capsules and insert them in the trocar. If the capsules are picked up by hand, be sure the gloves are free of powder or other particles. (To avoid dropping a capsule while loading it in the trocar, keep your hand "cupped" under the trocar.) (**Figure 6-7**)

Figure 6-4. Injecting the Anesthetic



Source: Population Council 1990.

Experience has shown that three equally spaced tracks which follow the fan-shaped pattern of the capsules (i.e., injecting anesthetic just between where capsules 1 and 2, 3 and 4, and 5 and 6 will be inserted) provide adequate numbing and reduce the amount of local anesthetic needed. **One ml (cc) is sufficient in each of the tracks.** Finally, gently rub the area injected to spread it around; this will improve the anesthetic's effectiveness.

Note: To prevent local anesthetic toxicity, the total dose should not exceed 10 ml (10 grams/liter) of a 1% local anesthetic **without** epinephrine.

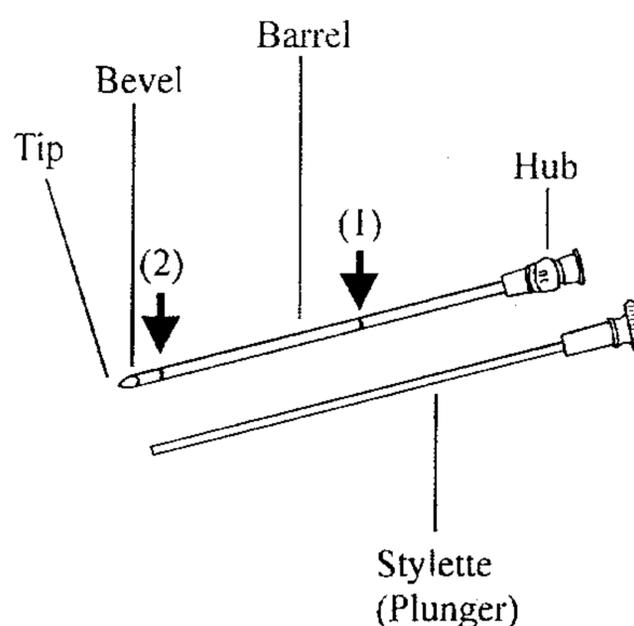
Inserting the Capsules

Before starting, gently touch the incision site with the hypodermic needle or scalpel to be sure the anesthetic is working.

STEP 1: Holding the scalpel at about a 45° angle, make a small, shallow incision which **just** penetrates the skin. **Do not make a long or deep incision.**

STEP 2: Refresh your memory about the purpose of the two marks on the trocar. The trocar should be held so that the bevel on the tip faces upward (**Figure 6-5**). There are two marks on the trocar. Mark (1), which is close to the hub, indicates how far the trocar should be introduced before loading each capsule. Mark (2), which is close to the tip, indicates how much of the trocar should be left under the skin following the insertion of each capsule.

Figure 6-5. Markings on the Trocar



Source: Population Council 1990.

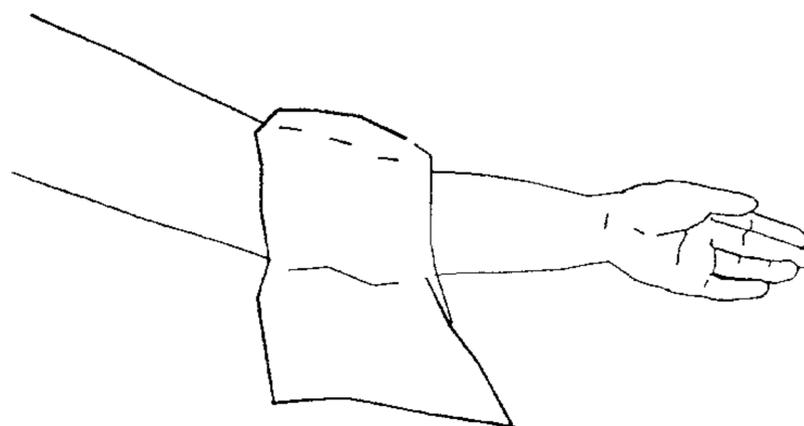
Note: Do not use powder with gloves. The tiny powder (talc) granules may fall into the insertion site and cause scarring (fibrous reaction). If gloves are powdered, wipe off fingers with sterile gauze soaked with sterile or boiled water.

STEP 3: Arrange instruments and supplies so that they are easily accessible. **Count to make sure there are six capsules.**

STEP 4: Prep the insertion site with an antiseptic solution. Use a sterile or high-level disinfected sponge forceps to hold a cotton or gauze swab soaked with antiseptic. (If prepping is done with a gloved hand, care must be taken **not** to contaminate the glove by touching any unprepped skin.) Begin by wiping at the insertion site and move outward in a circular motion for 8 to 13 cm (3 to 5 inches) and allow to air dry (about 2 minutes) before proceeding. Wipe off excess antiseptic only if necessary to see the template marks.

STEP 5: If a sterile surgical drape with a hole in it is available, it should be used to cover the arm. The hole should be large enough to expose the area where the capsules will be inserted. A second option is to cover the arm below the insertion area with a sterile cloth (**Figure 6-3**). (Alternatively, a decontaminated, cleaned and machine- or air-dried cloth can be used.)

Figure 6-3. Surgical Draping



Adapted from: Population Council 1990.

STEP 6: After determining the absence of known allergies to the anesthetic agent or related drugs, fill a syringe with about 3 ml of local anesthetic (1% **without** epinephrine). This is enough to numb the area while inserting the six capsules.

STEP 7: Insert the needle just under the skin at the incision site (point closest to the elbow). Next, pull back on the plunger to be sure the needle is not in a blood vessel (aspirate). Inject a very small amount of anesthetic to raise a small wheal (raised area). Then, without removing the needle, gently advance it under the skin for about 4 cm (1½ inches) (**Figure 6-4**). This will raise the dermis up from the underlying soft tissue. Slowly withdraw the needle, “laying a track” of anesthetic.

- has ever had a local anesthetic before, and
- is allergic to local anesthetics or other drugs.

Getting Ready

STEP 1: Have client wash her entire arm with soap and water and rinse thoroughly, being sure to remove all traces of soap (residual soap decreases the effectiveness of some antiseptics). This step is particularly important when client hygiene is poor.

STEP 2: Cover the procedure table (and arm support or side table, if used) with a clean, dry cloth.

STEP 3: Ask the client to lie down on the table so that the arm she uses less rests on the table or arm support. Her arm should be well-supported and able to be comfortably extended straight or slightly bent, as the clinician prefers. (Figure 6-2).

STEP 4: Determine the optimal insertion area (8 cm/3 inches) above the elbow fold. Use the template (pattern) and mark where the incision will be made and the six capsules placed. (If an antiseptic containing alcohol will be used to prep the arm, a pen with permanent ink must be used.)

STEP 5: Prepare an instrument tray and open the sterile instrument pack without touching the instruments and other items.

STEP 6: Carefully open the sterile pouch containing the capsules by pulling apart the sheets of the pouch and allowing the six capsules to fall into a sterile cup or bowl.

Remember: Contact with cotton or other cloth makes the capsules more reactive (i.e., more apt to cause adhesions or scarring because minute particles of the cotton adhere to the capsules).

If a sterile cup or bowl is not available, the capsules can be dropped into a high-level disinfected bowl or onto the tray containing the instruments. Alternatively, partially open the pouch and remove the capsules one at a time, as needed, using sterile or high-level disinfected forceps. **Do not** touch the inside of the package or its contents except with a sterile or high-level disinfected instrument.

Note: If a capsule falls on the floor, it is contaminated. Open a new package and continue with the procedure. (Never attempt to sterilize or high-level disinfect contaminated capsules.)

Pre-Insertion Tasks

STEP 1: Wash hands thoroughly with soap and water and dry them with a clean cloth.

STEP 2: Put sterile or high-level disinfected gloves on both hands. (A separate pair of gloves must be worn for each client to avoid cross-contamination.)

REMOVAL

BACKGROUND

Unlike insertion, removal of Norplant implants does not have to be timed to the menses and can be done at any time. As has been stressed throughout other sections of this manual, correct insertion—with the capsules placed subdermally—makes the removal procedure much easier (Darney and Klaisle 1995).

While all types of clinicians (physicians, nurses and midwives) can be trained to insert and remove the capsules, a clinician **skilled in removal** should be consulted if difficulty in removing the capsules is anticipated.¹ Clinicians need to work gently, carefully and patiently when removing capsules. As with insertion, using the recommended infection prevention practices (see **Chapter 5**) is essential to minimizing infections following removal of the implants and the risk of disease transmission.

The material presented in this chapter is intended to reinforce practical training and to serve as a ready reference for questions. It cannot substitute for actual practice which is absolutely necessary for the clinician to become proficient in removal of Norplant implants.

REMOVAL METHODS

The **standard** removal method using Crile or mosquito forceps to grasp the implants was developed in the early 1980s. Details of this technique were published in 1990 by the Population Council and in the WHO guidelines for Norplant implants and are fully described in this chapter.

Since that time, however, several investigators have reported modifications to the **standard** method such as the “pop-out” technique described by Darney et al in 1992. The fact that improvements in the method of removal continue to be sought, while changes in the insertion technique have been few, suggests that the standard removal technique is not entirely satisfactory. This observation is supported by the experience in several countries. Removal requires more patience and skill than insertion. Moreover, with atypically placed capsules (i.e., those inserted too deep and/or in an irregular pattern), removal using any technique takes longer and is associated with more blood loss than insertion (WHO 1990).

Recently, Praptohardjo and Wibowo (1993) reported a new method for removal of subdermal contraceptive implants, called the “U” technique. The major differences between the “U” and **standard** techniques are:

¹ Difficulty in removing capsules can be anticipated if the capsules are not easily palpable (inserted too deep) or are not inserted in a fan-like pattern (atypically inserted).

Removal

- position of the skin incision, and
- use of the Norplant implants-holding forceps, a modified no-scalpel vasectomy (NSV)-holding forceps, in which the diameter of the tip is reduced from 3.5 to 2.2 mm.

This new method also is described in detail in this chapter.

PREPARATION

It is important that the instruments be in excellent condition (e.g., the scalpel must be sharp and the forceps should have a very tight grasp). In addition, check that all instruments and other items have been sterilized or high-level disinfected (see **Chapter 5 and Appendix C**).

The following items are needed for each removal (**Figure 9-1**):

- examining table for the woman to lie on;
- arm support or side table;
- soap for washing the arm;
- sterile (or clean), dry surgical drape;
- three bowls (one for the antiseptic solution, one for cotton balls soaked with boiled or sterile water to remove the talc from gloves and one containing 0.5% chlorine solution for decontaminating removed capsules);
- pair of sterile (or high-level disinfected) surgical gloves;

- antiseptic solution;
- local anesthetic (1% concentration **without** epinephrine);
- syringe (5 or 10 ml) and 2.5 to 4 cm (1-1½ inches) long needle (22 gauge);
- scalpel with #11 blade;
- curved and straight forceps (mosquito and Crile);
- ordinary bandaid or sterile gauze with surgical tape;
- sterile gauze and compresses; and
- epinephrine for anaphylactic shock (readily available for emergency use).

Figure 9-1. Basic Equipment and Materials for Removal



Adapted from: Population Council 1990.

The insertion/removal kit supplied by USAID contains all the instruments needed for insertion and removal of Norplant implants using the **standard** method.

PREREMOVAL COUNSELING

Before removing the capsules, talk with the client about her reason for removal and answer any questions. Ask the client about her present reproductive goals (e.g., Does she want to continue spacing or limiting births?). Briefly describe the removal process and what she should expect both during the removal and afterwards.

GENERAL PROCEDURES

An easy removal depends on correct insertion. Routinely, removals take slightly longer than insertions—usually from 10 to 20 minutes.

If the capsules were placed properly they will be easier to remove; if they were placed too deep, removal could be difficult.

It is helpful to locate the capsules first with ungloved fingers. Most clinicians choose to mark the position of each capsule with a ballpoint or marking pen. Then, the client's arm is swabbed with an antiseptic before the local anesthetic is injected. The anesthetic should be injected **under** the ends of the capsules nearest the incision site; **anesthetic applied over the capsules makes them difficult to feel (palpate)**.

Generally, only one small incision will be needed through which all six capsules will be removed. The incision should be no longer

than 4 mm. Where the incision is placed will depend on the position of the implants (i.e., correctly or typically placed) and removal method used—the **standard** or “U” technique (see below).

The first capsule to be removed should be the one that is easiest to reach (i.e., closest to the surface or nearest the incision). If the last one or two capsules prove difficult to remove, heroic measures should not be taken to remove them. If all six capsules are not removed in 20 to 30 minutes, stop the procedure. The client should be provided with a backup contraceptive method (if desired) and asked to return when the area is fully healed (in about 4 to 6 weeks), when a second attempt can be made. (Hard-to-find capsules can be located by x-ray or ultrasound.) Finally, clinicians need to work gently, carefully and patiently.

STEP-BY-STEP INSTRUCTIONS FOR REMOVAL

Before starting the procedure, check to be certain the client is not allergic to local anesthetics.

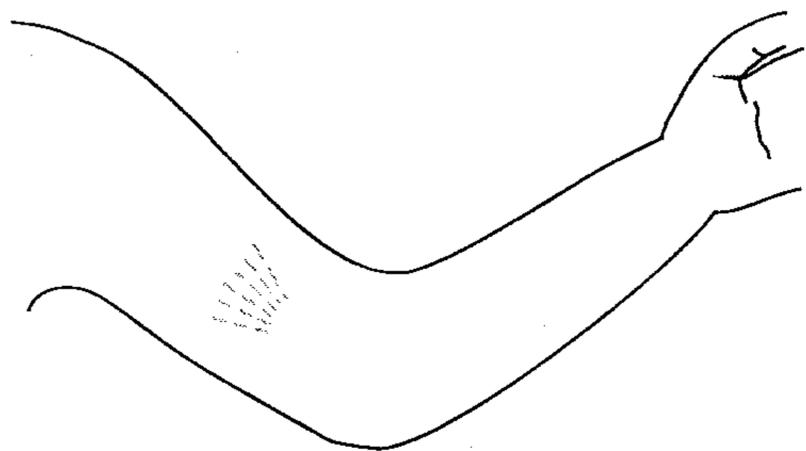
Getting Ready

STEP 1: Have the client wash her entire arm with soap and water, and rinse, being sure to remove all traces of soap. (Residual soap decreases the effectiveness of some antiseptics.) This step is particularly important when client hygiene is poor.

STEP 2: Cover the procedure table (and arm support or side table, if used) with a clean, dry cloth.

STEP 3: Ask the client to lie down on the table so that the arm with the capsules rests on the table or arm support (**Figure 9-2**). Her arm should be well-supported and able to be comfortably extended straight or slightly bent, as the clinician prefers.

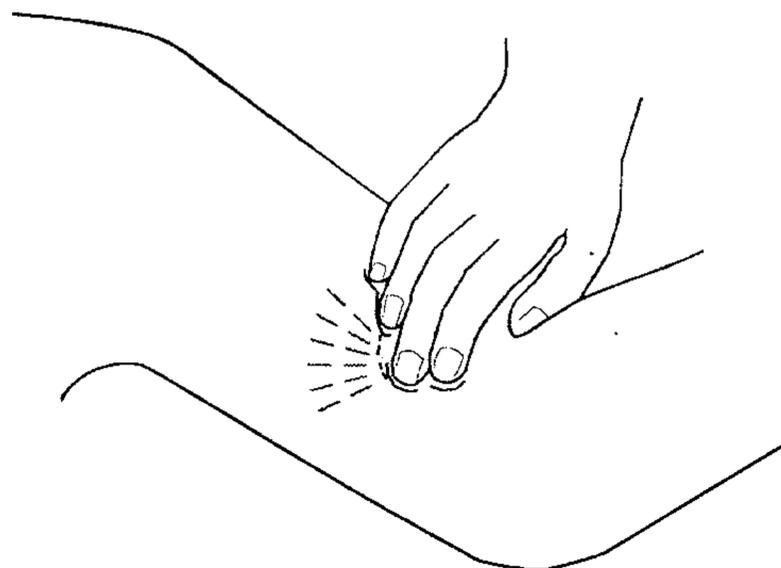
Figure 9-2. Positioning the Arm



STEP 4: Locate the six capsules by palpation (**Figure 9-3**). To gauge where to make the incision, palpate the ends of the capsules with bare (ungloved) fingers. (If it is difficult to find the capsules, refer to the client's file where the original capsule placement should be noted and a diagram may be available.)

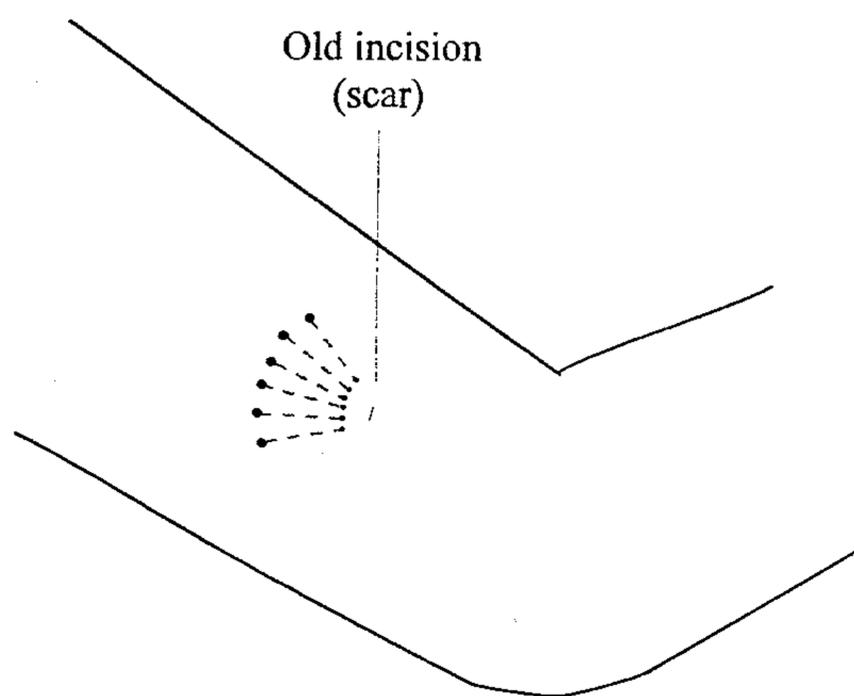
Tip: To make locating the capsules easier, moisten fingertips with a small amount of soapy water or antiseptic solution, such as Betadine or Savlon. Doing this decreases friction between the clinician's fingertips and the client's skin and allows the capsules to be more easily felt.

Figure 9-3. Palpating the Capsules



STEP 5: Confirm the position of each capsule by making a mark at both ends of the capsules (tips) using a ballpoint or marking pen (**Figure 9-4**).

Figure 9-4. Marking the Capsules



STEP 6: Prepare an instrument tray and open the sterile instrument pack without touching the instruments and other items.

Preremoval Tasks

STEP 1: Wash hands thoroughly with soap and water and dry them with a clean cloth.

STEP 2: Put sterile or high-level disinfected gloves on both hands. (A separate pair of gloves must be worn for each client to avoid cross-contamination.)

Note: Do not use powder with gloves. The tiny granules (talc) may fall into the removal site and cause scarring (fibrous reaction). If gloves are powdered, wipe off the fingers with sterile gauze soaked with sterile or boiled water.

STEP 3: Arrange supplies and instruments so that they are easily accessible.

STEP 4: Prep the removal site with an antiseptic solution. Use a sterile or high-level disinfected sponge forceps to hold a cotton or gauze swab soaked with antiseptic solution. (If prepping is done with a gloved hand, care must be taken not to contaminate the glove by touching any unprepped skin.) Begin wiping at the incision site and move outward in a circular motion for 8 to 13 cm (3 to 5 inches) and allow to air dry before proceeding. Wipe off excess antiseptic only if necessary to see pen marks.

STEP 5: If a sterile surgical drape with a hole in it is available, it should be used to cover the arm. The hole should be large enough to expose the area where the capsules are located. A second option is to cover the arm below where the capsules have been inserted with a sterile cloth. (Alternatively, a

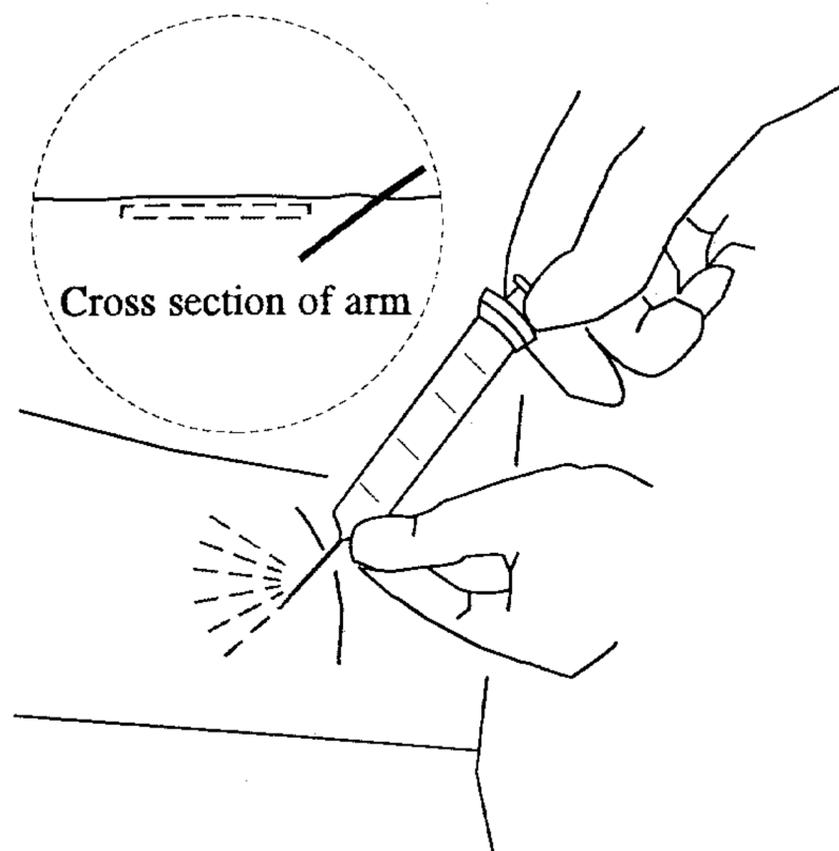
decontaminated, cleaned and machine- or air-dried cloth can be used.)

STEP 6: Again, locate the six capsules by palpation.

STEP 7: After determining the absence of known allergies to the anesthetic agent or related drugs, fill a syringe with about 3 ml of a local anesthetic (1% without epinephrine). Insert the needle just under the skin where the incision will be made. Next, pull back on the plunger to be sure the needle is not in a blood vessel (aspirate). Inject a small amount of anesthetic to raise a small wheal (raised area).

Gently advance the needle under the first capsule, about one third of its length (1 cm). Slowly withdraw the needle while injecting anesthetic (about 0.5 ml) to raise the end of the capsule (**Figure 9-5**).

Figure 9-5. Injecting the Anesthetic Under the Capsules



Source: Population Council 1990.

Remember: Correctly injecting the local anesthetic under the tips of the capsules is critical to an easy and rapid removal.

Without removing the needle, slide the tip over and insert it under the next capsule. Repeat this process until the ends of all six capsules are raised. Never put anesthetic over the capsules because the tissue swelling makes it difficult to palpate the capsules. If necessary, additional small amounts of anesthetic can be added as the removal process continues. Before starting, gently touch the incision site with the hypodermic needle or scalpel to be sure the anesthetic is working.

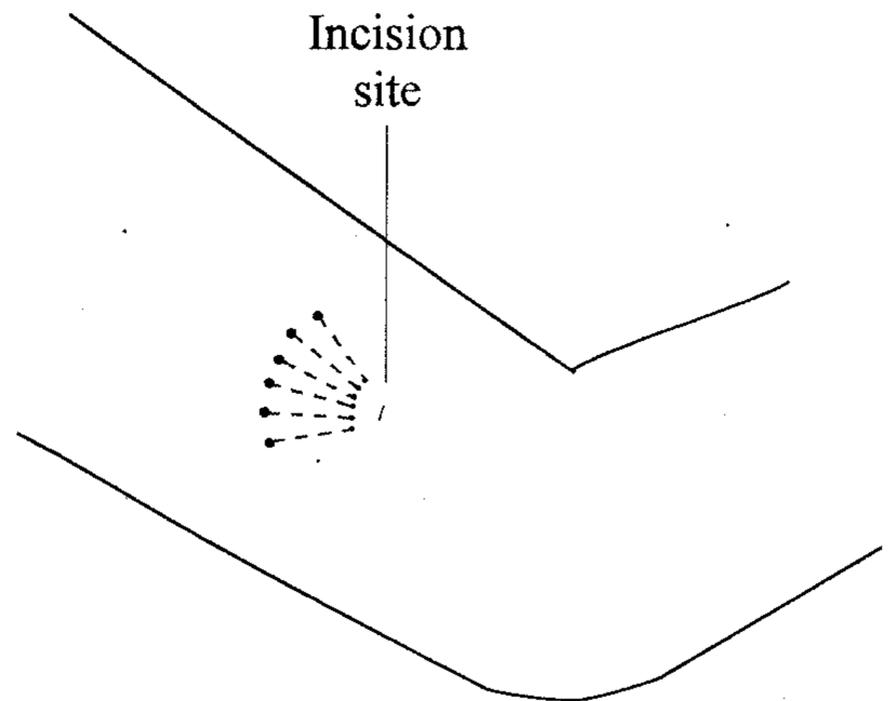
Note: To prevent local anesthetic toxicity, the total dose should not exceed 10 ml (10 grams/liter) of a 1% local anesthetic **without** epinephrine.

PROCEDURE TO REMOVE CAPSULES: STANDARD METHOD

STEP 1: Choose a point for the incision that is equidistant from the ends of **all** the capsules and which is close to and about 5 mm **below** the distal (toward the elbow) ends of the capsules (**Figure 9-6**).

If appropriate, the removal incision may be made at the point of the previous insertion incision. Before selecting this site, however, make sure that none of the capsule ends are under the old incision. (This avoids the possibility of cutting through the capsules.)

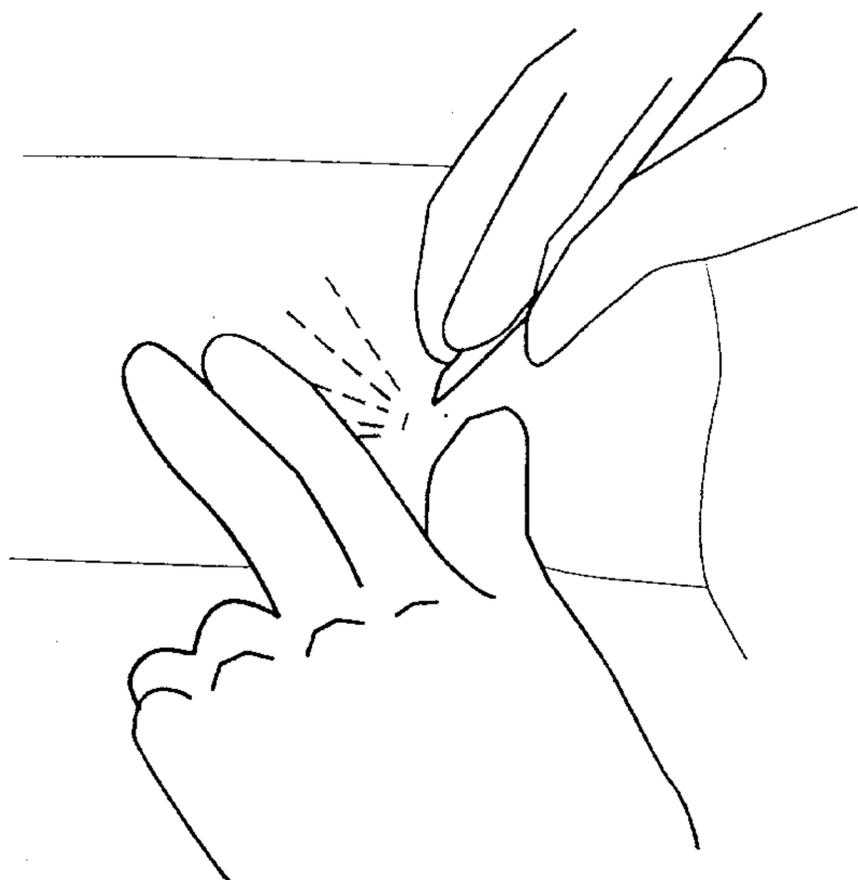
Figure 9-6. Location of Incision in the Standard Technique



Adapted from: Population Council 1990.

STEP 2: At the site chosen, make a small **transverse** incision of about 4 mm or less with a scalpel. **Do not make a large incision** (**Figure 9-7**).

Figure 9-7. Making the Incision

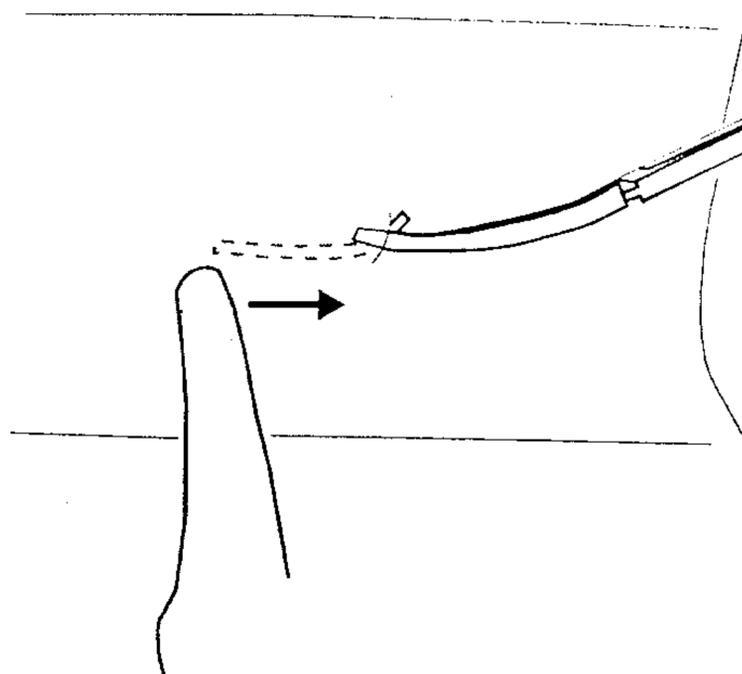


Note: If another set of capsules is to be inserted, usually the same incision can be used for both removal and insertion of a new set (see **Second Insertions** in this chapter).

STEP 3: Begin by selecting the capsule closest to the surface or nearest the incision.

STEP 4: Push the tip of the capsule gently toward the incision with the gloved fingers of one hand until it can be seen at the incision. When the tip is visible in the incision, insert the curved forceps (mosquito or Crile) with the jaws curving up and grasp the end of the capsule (**Figure 9-8**).

Figure 9-8. Grasping the Capsule with the Curved Forceps

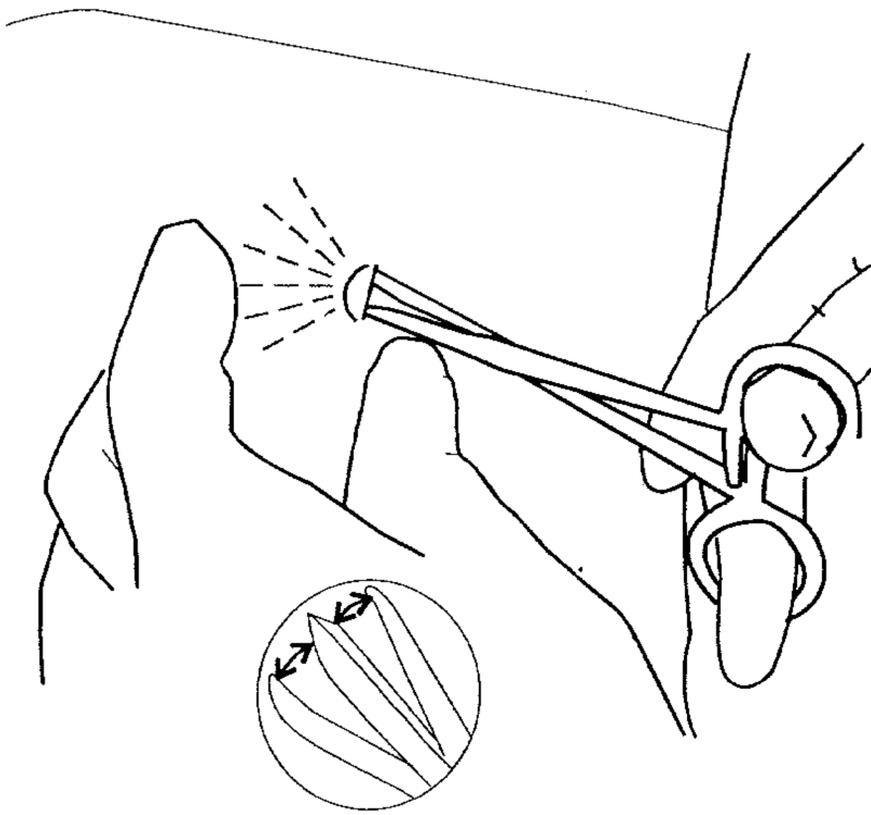


Note: If the capsules cannot be easily moved into the incision, this may be due to scarring (fibrous tissue formation) around the tips of the capsules. (See **Steps 4A and 4B** for how to break up the scar tissue.)

STEP 4A: Insert the curved forceps through the incision with the jaws pointed up toward the skin and advance until they are below the ends (tips) of the capsules nearest the elbow. Then open and close the forceps' jaws (blunt dissection) to break up the scar tissue surrounding the tip of the capsule (**Figure 9-9**). Repeat until the tips of all six capsules are freed up (easily moveable).

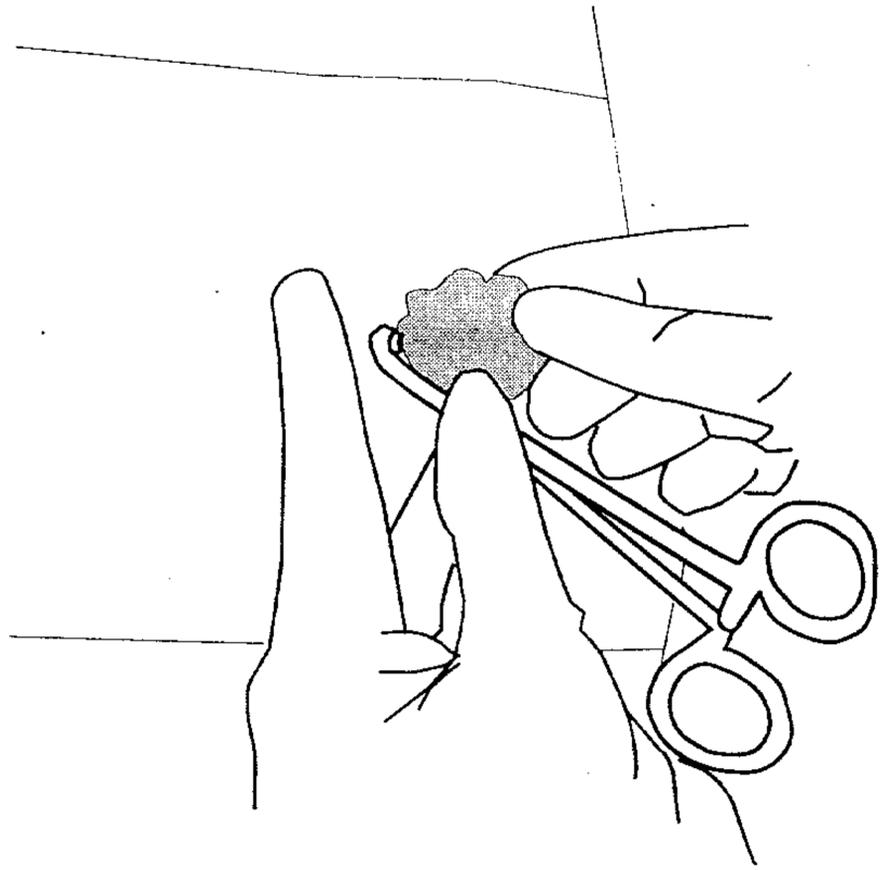
STEP 4B: Next, push the tip of the first capsule as close to the incision as possible. While pressing on (stabilizing) the capsule with the first (forefinger) and middle fingers of one hand, re-insert the curved forceps under the end of the capsule (jaws pointing up toward the skin), grasp the capsule near the tip (5 to 10 mm) and gently pull it into the incision (**Figure 9-8**).

Figure 9-9. Breaking Up Scar Tissue (Blunt Dissection)



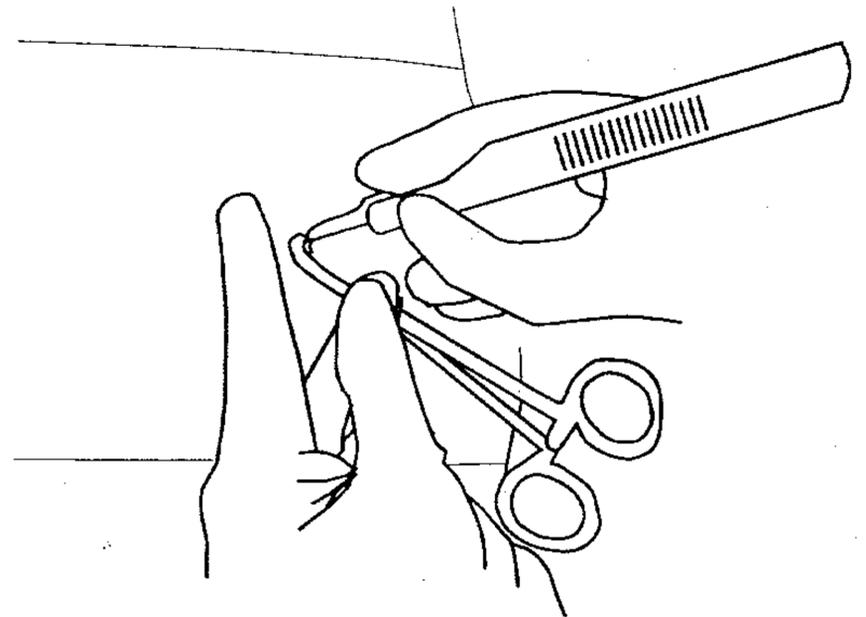
STEP 5: Clean off and open the fibrous tissue sheath surrounding the capsule by rubbing vigorously with sterile gauze to expose the tip of the capsule (**Figure 9-10**).

Figure 9-10. Opening the Fibrous Sheath with Sterile Gauze



Alternatively, if the fibrous tissue sheath cannot be opened by rubbing, the scalpel can be used. To avoid cutting the capsule, use the back side (non-sharp edge) of the scalpel (**Figure 9-11**).

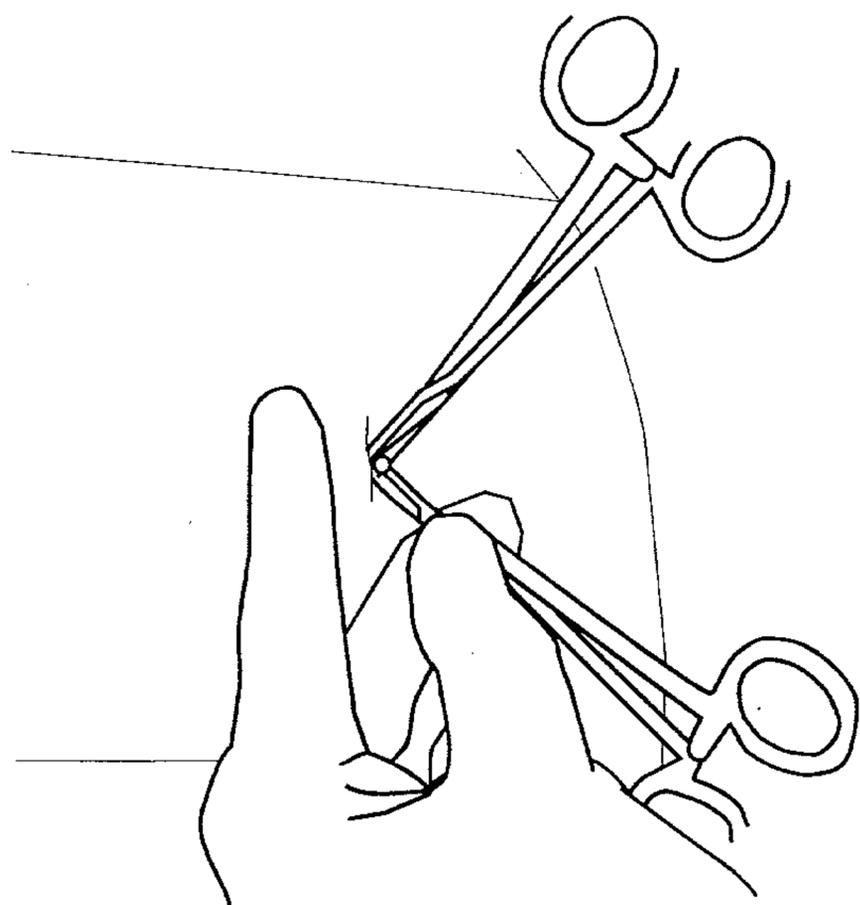
Figure 9-11. Opening the Fibrous Sheath with the Scalpel



Adapted from: Population Council 1990.

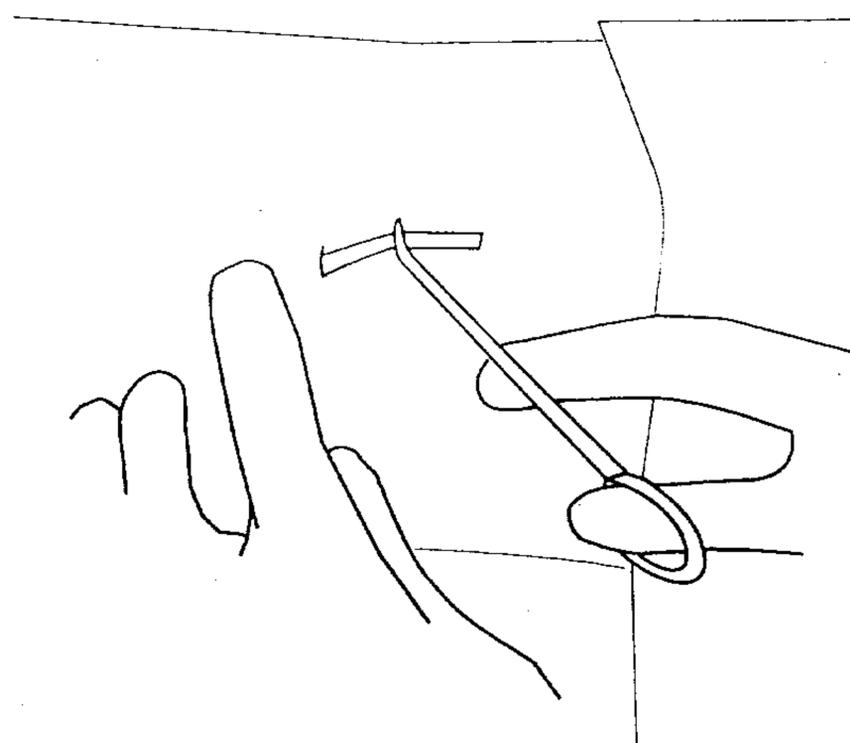
STEP 6: Grasp the freed tip of the capsule with a second pair of forceps (**Figure 9-12**). Release the first forceps and slowly and gently remove the capsule with the second forceps (**Figure 9-13**). Because tissue usually does not adhere to silicone rubber, the capsule should slide out easily. If for some reason the capsule does not come out easily, remove any remaining fibrous tissue from the capsule by gently rubbing with sterile gauze or scraping with the scalpel blade.

Figure 9-12. Grasping the Freed Capsule with the Second Forceps



Adapted from: Population Council 1990.

Figure 9-13. Capsule Removal



Adapted from: Population Council 1990.

Note: As capsules are removed, place them in a small bowl containing 0.5% chlorine solution for decontamination prior to disposal. Capsules can be easily counted in the bowl to be sure all six have been removed. In addition, by looking at the capsules in the bowl, the clinician can tell whether or not the capsules are broken—undamaged capsules will float; broken capsules will sink gradually to the bottom.

STEP 7: The next capsule that appears easiest to retrieve should be selected and removed. Repeat using the same technique (**Steps 4 to 6**) to remove the remaining capsules.

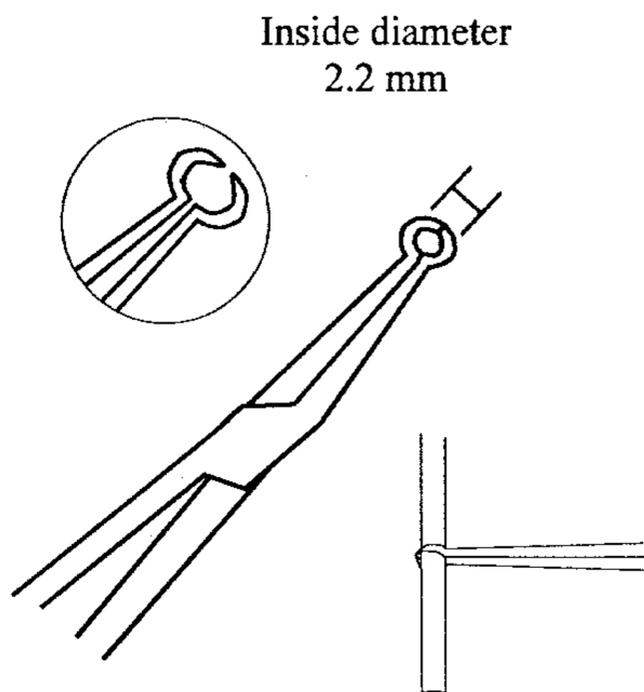
Remember: If additional anesthetic is required, inject it only under the capsules so as to not obscure them.

Before ending the procedure, count to be sure that all six capsules have been removed. It is important to show the client all six capsules to reassure her. (If the client wishes to continue using Norplant implants, see subsequent section on **Second Insertions**.)

PROCEDURE TO REMOVE CAPSULES: “U” TECHNIQUE

The forceps used for the “U” technique removal method is a modified no-scalpel vasectomy (NSV)-holding forceps with a tip diameter of 2.2 mm (**Figure 9-14**).

Figure 9-14. Norplant Implants-Holding Forceps

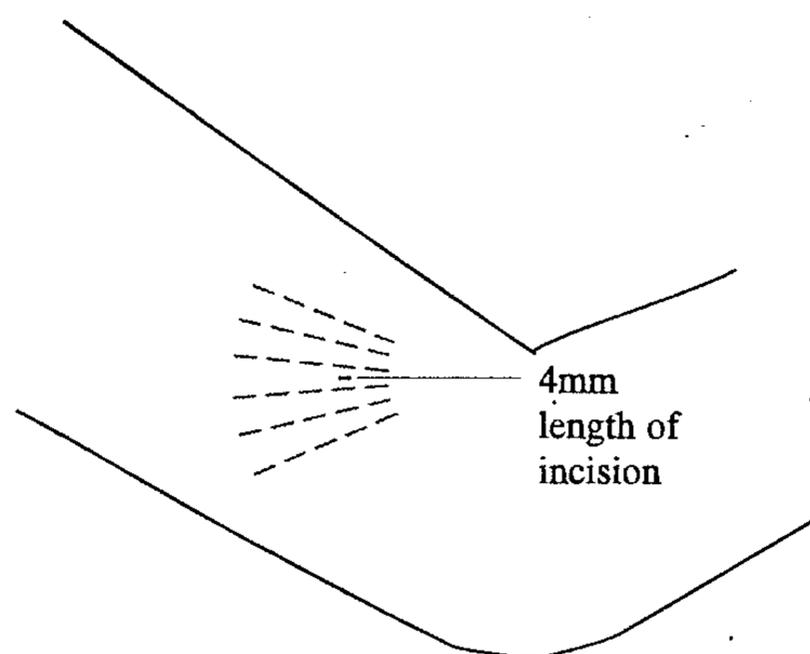


Source: Praptohardjo and Wibowo 1993.

To use this removal technique, carefully palpate the area to locate and mark the capsules. Next, wash hands and put on sterile or high-level disinfected gloves. Clean and prep the skin and inject the local anesthetic in the client's arm as previously described (**Getting Ready and Preremoval Tasks**).

STEP 1: Choose a point for the incision between capsules 3 and 4, about 5 mm from the tips of the capsules nearest the elbow (**Figure 9-15**).

Figure 9-15. Location of Incision in the “U” Technique



Adapted from: Praptohardjo and Wibowo 1993.

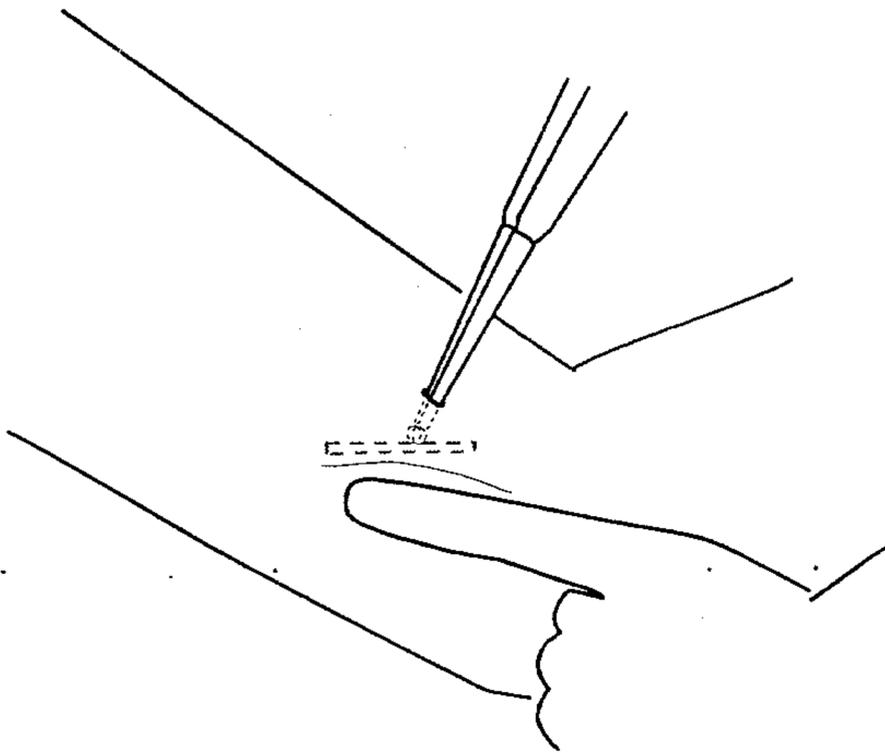
Note: If another set of capsules is to be inserted, usually the same incision can be used for both removal and insertion of the new set (see below, **Second Insertions**).

STEP 2: Make a small vertical incision with a scalpel parallel to (and between) the long axis of the capsules.

STEP 3: Begin by gently inserting the **Norplant implants-holding forceps** through the incision. (With this technique it is not necessary to bluntly dissect the underlying tissue as with the **standard** method.)

STEP 4: Now stabilize the capsule that is closest to the incision by placing the index finger (forefinger) parallel to (along the length of) the capsule (**Figure 9-16**).

Figure 9-16. Stabilizing the Capsule

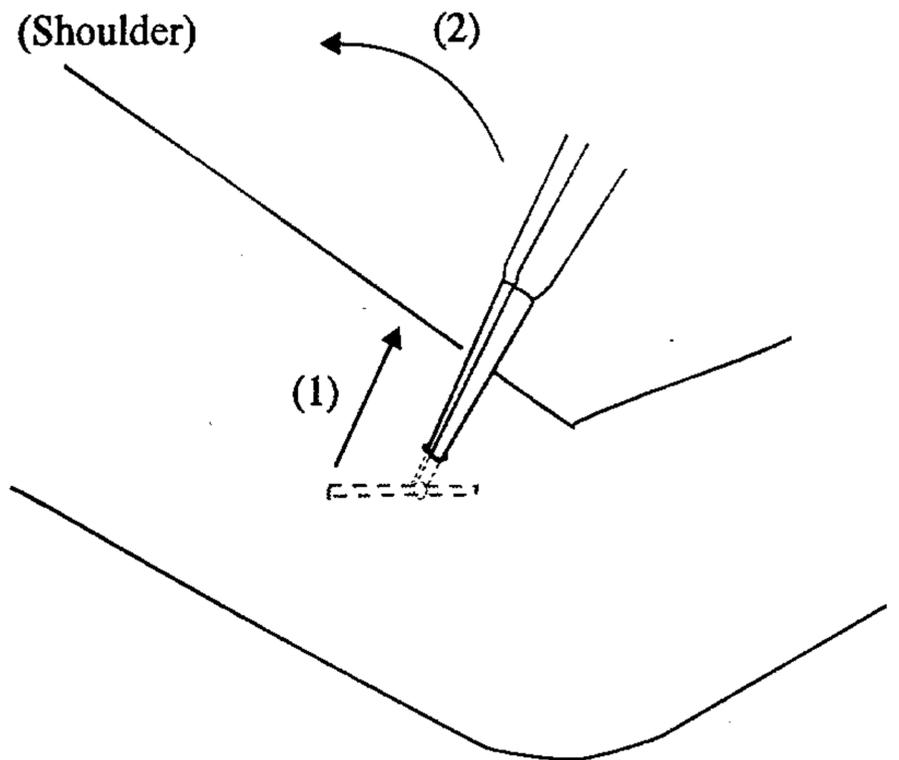


Source: Praptohardjo and Wibowo 1993.

STEP 5: Next, advance the forceps until the closed tip touches the capsule. Then, open the forceps and grasp the capsule at right angles to its long axis about 5 mm above the distal tip (**Figure 9-17**).

Finally, after grasping the capsule gently pull it toward the incision (1) and flip the handle of the forceps 180° toward the client's shoulder (2) to expose the capsule.

Figure 9-17. Grasping the Capsule and Flipping the Forceps



Source: Praptohardjo and Wibowo 1993.

STEP 6: Clean off and open the fibrous tissue sheath surrounding the capsule by rubbing with sterile gauze to expose the tip of the capsule for easy removal (**Figure 9-10**). Alternatively, if the fibrous tissue sheath cannot be opened by rubbing, the scalpel can be used (**Figure 9-11**).

STEP 7: Use the curved forceps (mosquito or Crile) to grasp the exposed part of the capsule. Release the Norplant implants-holding forceps and slowly and gently remove the capsule (**Figure 9-13**). Finally, place the capsule in a small bowl containing 0.5% chlorine for decontamination prior to disposal.

Because tissue usually does not adhere to silicone rubber, the capsule should slide out very easily. If for some reason the capsule does not come out easily, remove any remaining fibrous tissue from the capsule by gently rubbing with sterile gauze or the non-sharp edge of the scalpel.

STEP 8: The next capsule that appears easiest to retrieve on either side of the incision should be removed. Repeat using the same technique (**STEPS 3-7**) to remove the remaining capsules.

Remember: If additional anesthetic is required, inject it only **under** the capsules, so as not to obscure them.

Before ending the procedure, **count to be sure that all six capsules have been removed.** It is important to show the client all six capsules to reassure her. (If the client wishes to continue using the Norplant implants, see section on **Second Insertions.**)

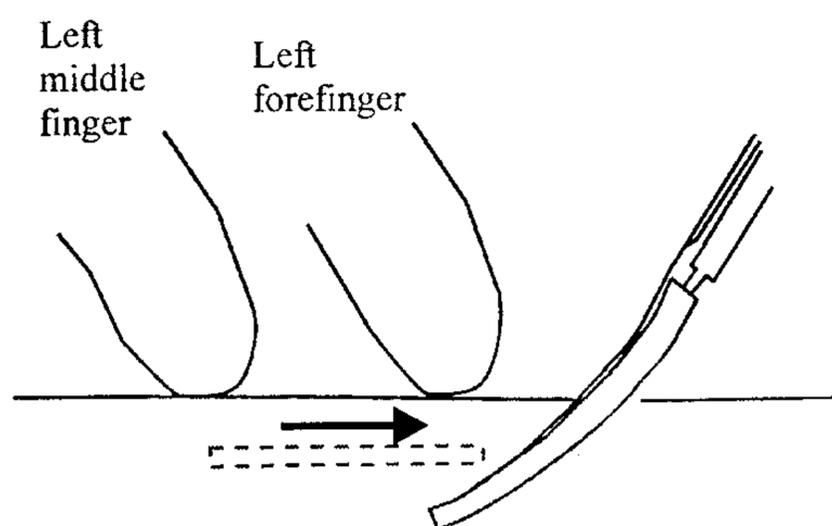
REMOVING HARD-TO-RETRIEVE CAPSULES

Occasionally, one or more of the capsules may be difficult to remove. For example, even after bluntly breaking up the scar tissue, the tip of a capsule cannot be pushed close to the incision site or the capsule has been inserted too deep (i.e., into the subcutaneous or fatty tissue). If this occurs, the "U" technique may be used to remove these capsules. Alternatively, follow these steps for removal:

STEP 1: Feel both tips of the capsule with the forefinger and middle finger. Keeping the middle finger on the tip of the capsule nearest the client's shoulder and the forefinger on the tip nearest the elbow, push the capsule as close to the incision as possible (**Figure 9-18**).

STEP 2: Insert the forceps (curved mosquito or Crile) into the incision until the jaws are well beneath the capsule. At the same time, keep pressure on the capsule with your fingers to stabilize it (**Figure 9-18**).

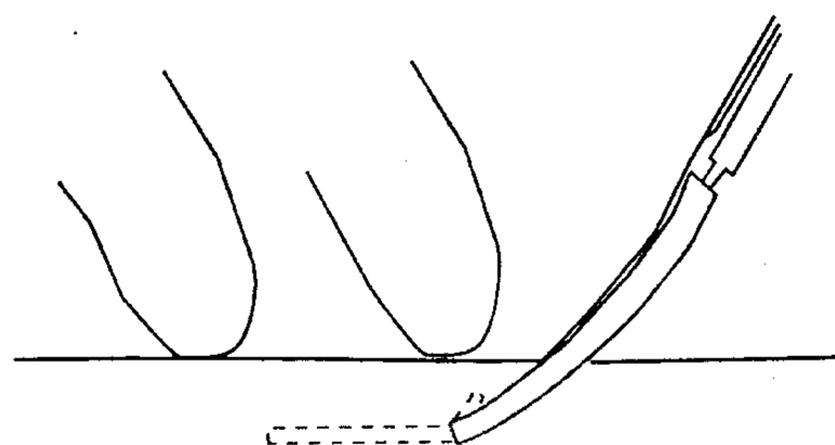
Figure 9-18. Stabilizing the Capsule and Inserting the Forceps



Source: Population Council 1990.

STEP 3: Firmly grasp the capsule from below with the jaws of the curved forceps (**Figure 9-19**).

Figure 9-19. Grasping the Capsule from Below

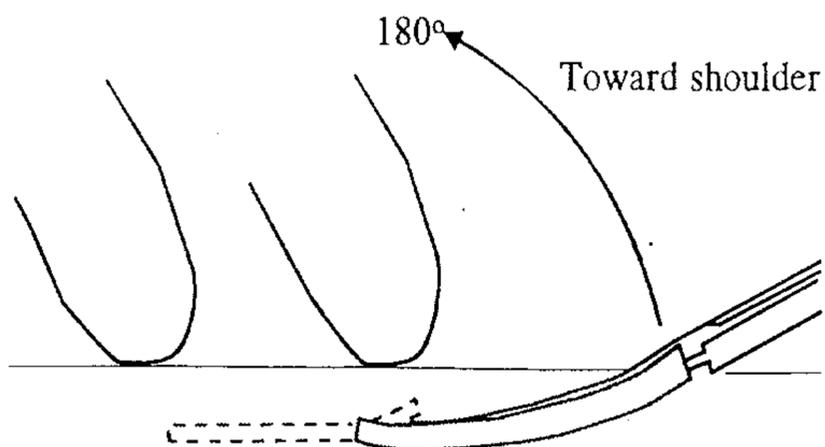


Adapted from: Population Council 1990.

STEP 4: Because 1 to 2 cm of the forceps now are inside the incision, do **not** try to pull the capsule out. Instead, while continuing to push the capsule toward the incision, flip the handle of the forceps 180° toward the client's

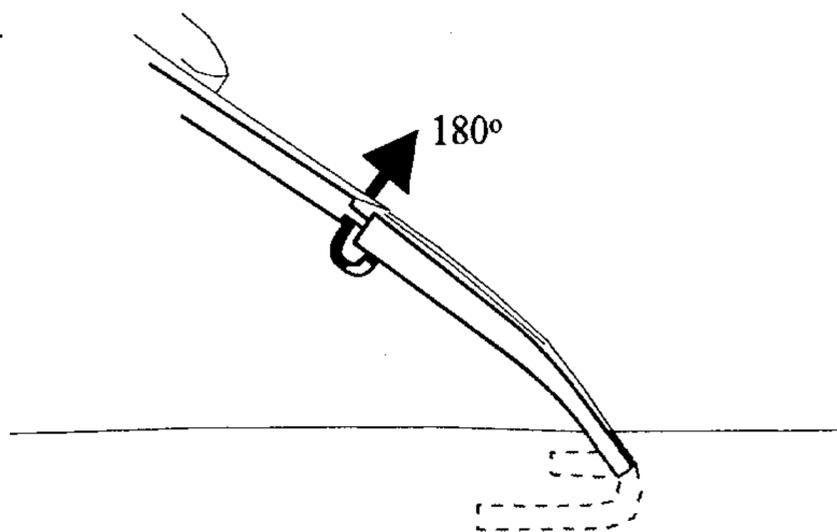
shoulder and grasp the handle with the opposite hand (Figure 9-20).

Figure 9-20. Flipping the Forceps



Note: If the capsule does not become visible after flipping (Step 4): Twist the forceps 180° around its main axis (Figure 9-21). With gentle pulling, the tip of the capsule should then become visible in the incision on the opposite side of the forceps.

Figure 9-21. Twisting the Forceps to Show the Capsule



STEP 5: Clean off and open the fibrous tissue sheath surrounding the capsule by rubbing with sterile gauze to expose the tip of the capsule. Alternatively, if the fibrous

tissue sheath cannot be opened by rubbing, the scalpel can be used.

STEP 6: After opening the fibrous sheath, use the second forceps to grasp the part of the capsule that becomes visible. Release the first forceps and gently remove the capsule.

STEP 7: Any remaining “difficult-to-remove” capsules can be removed using the same technique. If necessary, inject additional small amounts of local anesthetic **under** any remaining capsules.

ALTERNATIVE REMOVAL TECHNIQUE: THE “POP-OUT” TECHNIQUE

In 1992, Darney, Klaisle and Walker reported a simpler technique for removing some or all of the capsules. This method, called the “pop-out” technique, does not involve the use of forceps. As a result the capsules can be removed with less discomfort and bleeding and usually through a smaller incision. Also, the amount of trauma and bruising is less and the scar is smaller and less visible. Using this approach, the risk of breaking the capsules during removal is reduced. The only **disadvantage** of the “pop-out” technique is that it **may not work** if the capsules were atypically placed (e.g., not in a fan-like pattern) when inserted or if inserted too deep.

To use this technique, carefully palpate the area to locate and mark the capsules. Next, wash hands and put on sterile or high-level disinfected gloves. Clean and prep the skin and inject the local anesthetic in the client's arm as previously described (**Getting Ready and Preremoval Tasks**).

STEP 1: Confirm the location of the capsule which is most centrally positioned and equidistant from the tips of the others. Push on the proximal end (closest to the client's shoulder) of the selected capsule with a finger. When the distal tip (nearest the elbow) is clearly visible (i.e., pushes up under the skin) make a small incision (2 to 3 mm) over the tip with the scalpel (Figure 9-22).

Figure 9-22. Making the Incision

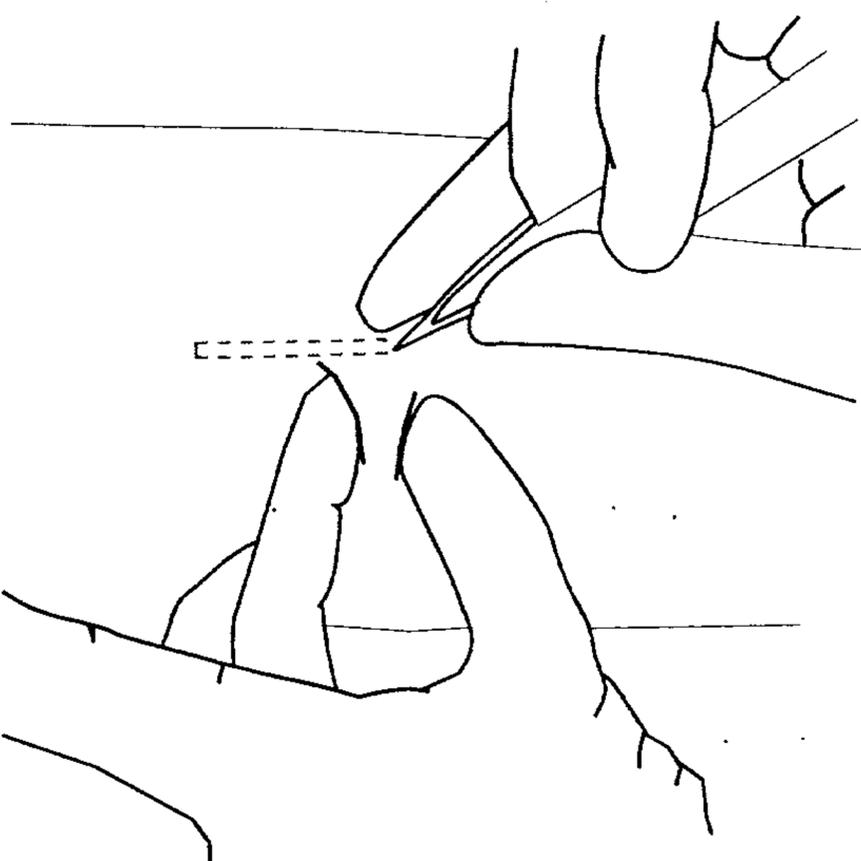
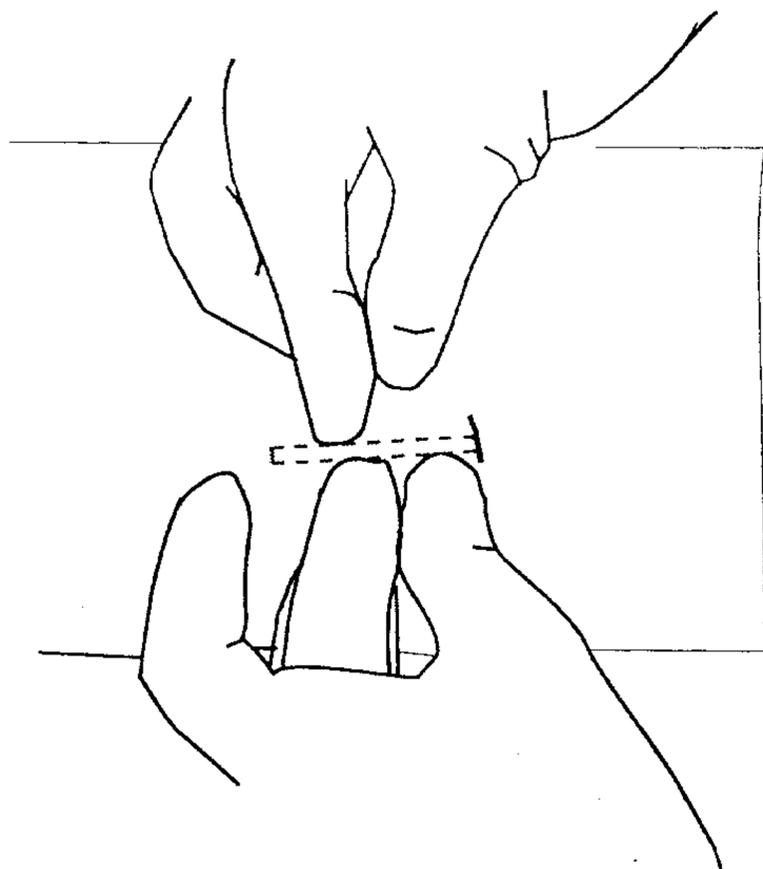


Figure 9-23. Positioning the Distal Tip Under the Incision

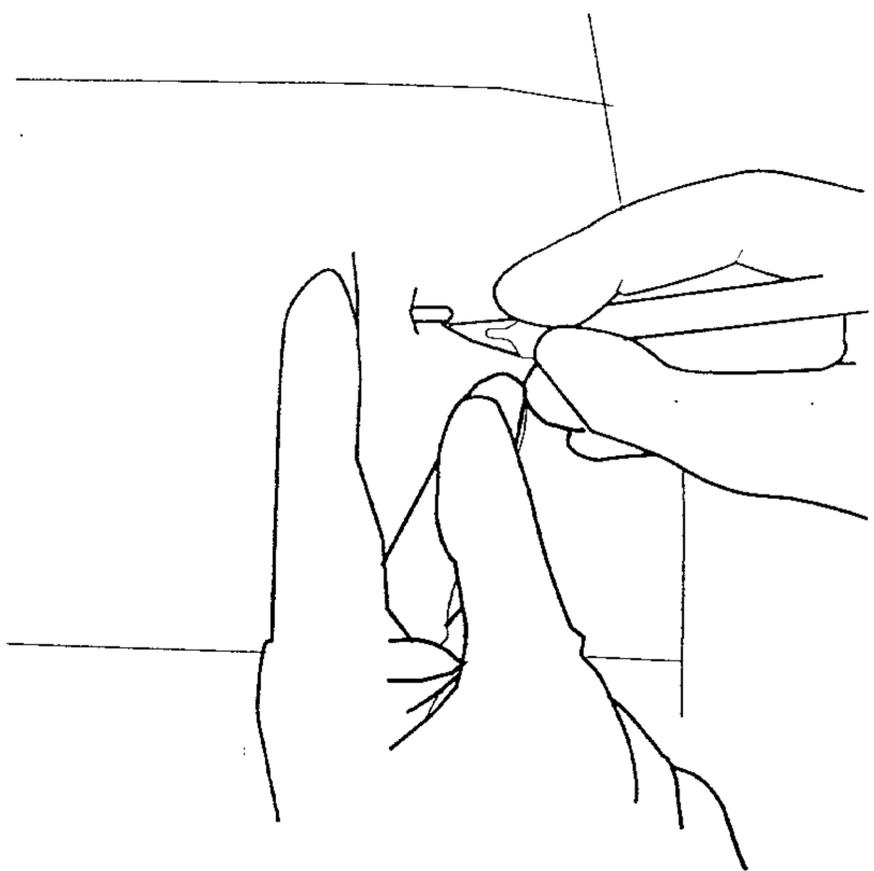


STEP 3: Insert the pointed tip of the scalpel blade into the incision until you feel it touch the end of the capsule. If necessary, cut the fibrous sheath surrounding the tip of the capsule while still holding the capsule with the thumb and index finger (Figure 9-24).

Note: If the scalpel is required to open the fibrous sheath covering the distal end of the capsule, care must be taken to avoid accidentally cutting the capsule.

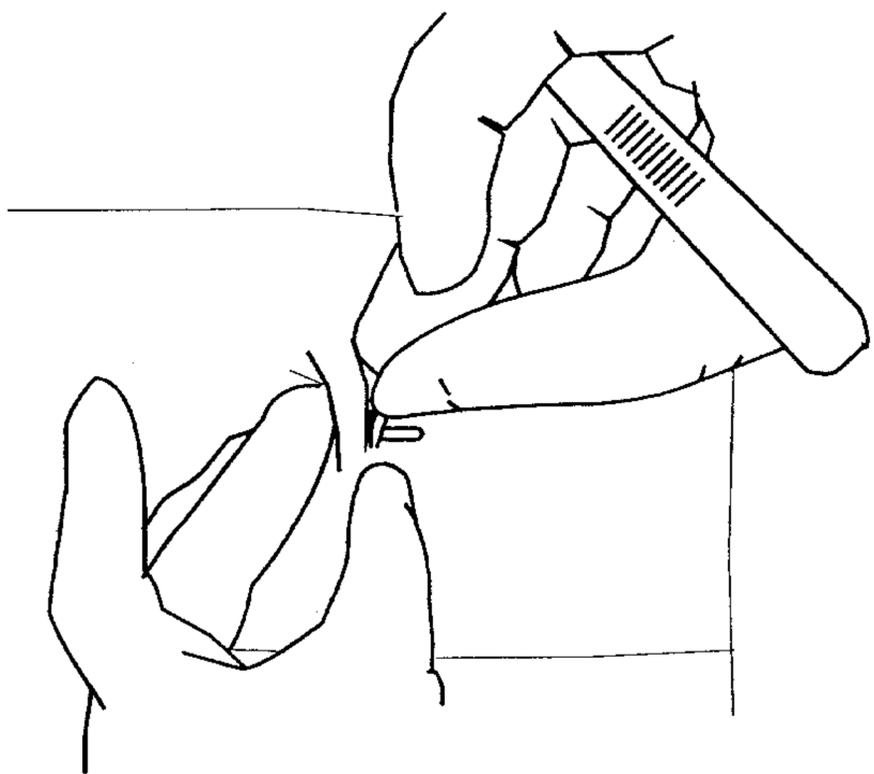
STEP 2: Apply pressure with the thumb and middle (second) finger to the distal tip of the capsule in order to bring the tip into better position under the incision (Figure 9-23).

Figure 9-24. Opening the Fibrous Sheath



STEP 4: With the sheath opened, the distal end of the capsule will now come into view when the tissue surrounding it is gently squeezed with both thumbs (**Figure 9-25**).

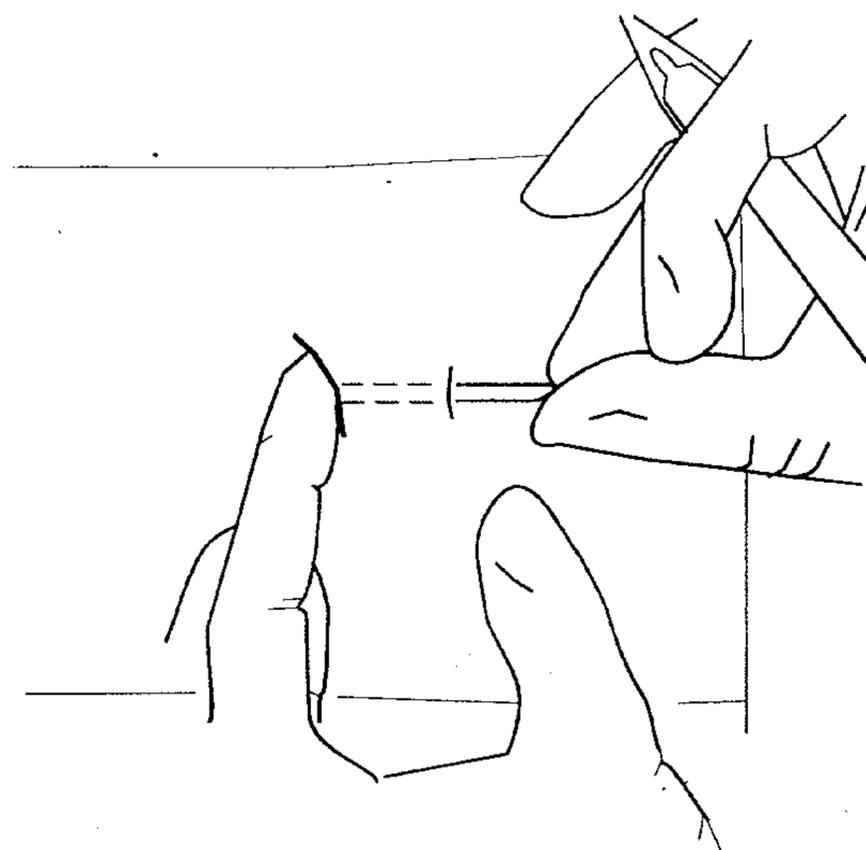
Figure 9-25. Exposing the Distal Tip of the Capsule



STEP 5: With gentle pressure on the proximal end of the capsule (nearest the shoulder), it will “pop-out” of the incision

and can be grasped easily and gently removed (**Figure 9-26**).

Figure 9-26. “Popping Out” the Capsule



Once the first capsule is removed, the remaining ones are “popped out” using the same approach.

Note: To reduce the risk of breaking the capsules, push on them gently. Use as little pressure (squeezing) as possible to “pop” them out. Also, be very careful when grasping the capsules after they have been “popped out” of the incision.

It may not be possible to remove all six capsules using this technique. If difficulty is encountered, remove the remaining capsules using one of the other removal techniques.

Before ending the procedure, **count to be sure that all six capsules have been removed.** The incision is closed with a

bandaid or surgical tape. A pressure dressing usually is not required because this removal method causes little or no trauma to the underlying (subcutaneous) tissue.

REMOVAL TIPS

Capsules that Are Difficult to Remove

Occasionally all the capsules cannot be removed readily at the first visit. **Do not take heroic measures to remove the last one or two.** As a general rule, if all capsules have not been removed within 20 to 30 minutes, or the client is experiencing significant discomfort, it is best to stop the procedure, send the woman home, and ask her to return when the area is fully healed (in about 4 to 6 weeks). Usually the remaining capsules will be readily located and removed at the second visit.

Remember: The client should be given a backup contraceptive method to use while waiting to have the remaining capsule(s) removed if she does not wish to become pregnant.

Capsules that Cannot be Palpated

There are two ways to locate capsules that have been inserted too deep to feel with the fingers: x-ray and ultrasound. By using a radiopaque object to mark the original incision site, the capsules, which are also radiopaque, usually can be detected by x-ray (set at 50-55 kilovolts and 4-5 milliamperes, exposure time 0.03 seconds). Their depth usually cannot be determined by a single x-ray. Thus, further examination may be

required to establish their exact location. With **ultrasound**, the image caused by the capsules also can be detected (i.e., a shadow—echo-free area—will be present under each capsule). Special adjustments (positioning of the ultrasound probe) may be necessary to focus the ultrasound image.

Capsules that Are Broken

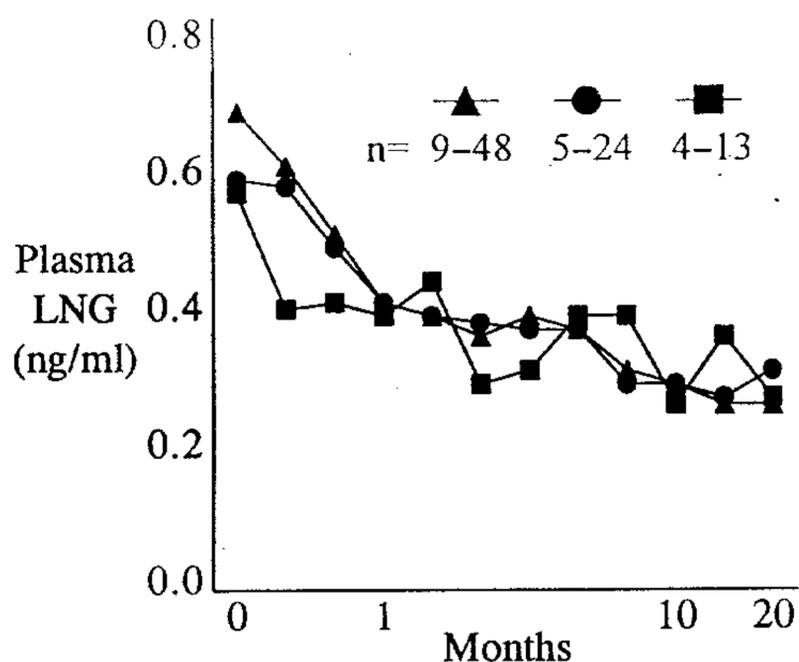
Removal of the capsules is more difficult if they are broken during attempts to get them out. Once the capsule is damaged, it may break again with each attempt to grasp it with the forceps. Rarely, removal of a broken capsule may require an additional incision at the proximal end of the capsule (end nearest the shoulder) so that the remaining piece can be removed more easily.

SECOND INSERTIONS

If the client wants to continue using Norplant implants, a new set of capsules can be inserted at the time the current set is removed. When levonorgestrel levels following first insertion were compared with those following insertion of a second set of implants, no significant difference was observed after placement in the same site or in the opposite arm (Figure 9-27).

- The capsules may be placed through the same incision in the same general direction as the previous set.
- Alternatively, the capsules can be inserted in the opposite direction. Be sure the tips of the capsules do not lie so close to the elbow fold as to interfere with movement.

Figure 9-27. Levonorgestrel Plasma Levels. Levels after first insertion of Norplant implants (▲) and after insertion of a second implants set at the same (●) or opposite (■) site.



Adapted from: Croxatto, Diaz and Sivin 1991.

- A new incision should be necessary only if there is too much soft tissue trauma (bruising) in the area of the original insertion or if there is not enough room between the incision and the elbow fold.
- In the unlikely event that the removal site is unsuitable, or at the client's request, the new set can be inserted in the other arm.

PROCEDURE TO FOLLOW AFTER REMOVAL OF CAPSULES

Covering the Incision

- If the client does not want another set of implants, clean the area around the

incision site with a small amount of antiseptic solution applied to a cotton or gauze swab. Use the forceps to hold the edges of the incision together briefly (10 to 15 seconds). This will help reduce bleeding from the incision. Then proceed with bandaging the incision area.

- With the edges of the incision together, close with a bandaid, or surgical tape with sterile cotton. **Sutures are not necessary and may increase scarring.**² Check for any bleeding.

Waste Disposal and Decontamination

- Before removing gloves, gently place instruments into a container filled with a 0.5% chlorine solution for decontamination (see **Appendix C** for how to make solution from household bleach). Before immersing the needle and syringe, fill with chlorine solution (do not disassemble). Soak all items for 10 minutes, then rinse **immediately** with clean water to avoid discoloration or corrosion of metal items.
- The surgical drape (if used) must be washed before reuse. Place in a **dry** covered container and remove to the designated washing area.
- While still wearing gloves, place all contaminated objects (capsules, gauze, cotton and other waste items) in a properly marked, leak-proof container with a tight-fitting lid or in a plastic bag.

² If removal required extensive blunt dissection, or to minimize bleeding, cover the removal area with a dry compress (pressure dressing) and wrap gauze snugly around the arm.

Removal

- If **disposing** of gloves, immerse both gloved hands briefly in chlorine solution and then carefully remove gloves by turning inside out and place in the waste container.
- If **reusing** gloves, place both gloved hands briefly in the chlorine solution to decontaminate the outside. Remove by turning inside out. To ensure that both surfaces of the gloves are decontaminated, place them in the chlorine solution and soak for 10 minutes.
- Wash hands thoroughly with soap and water.
- All waste material should be disposed of by burning or burying.

Client Care

- Place a note in the client's record indicating the date of removal and specifying any unusual events that may have occurred during removal.
- Observe the client for at least 15 to 20 minutes for bleeding from the incision or adverse effects before sending her home.

CLIENT INSTRUCTIONS FOR WOUND CARE AT HOME

- There may be bruising, swelling or tenderness at the insertion site for a few days. This is normal.
- Keep the area around the removal site dry and clean for at least 48 hours. (The

incision could become infected if the area gets wet while bathing.)

- If used, leave the gauze pressure bandage in place for 48 hours and the bandaid or surgical tape in place until the incision heals (i.e., normally 3 to 5 days).
- Routine work can be done immediately. Avoid bumping the area, carrying heavy loads or applying unusual pressure to the site.
- After healing, the area can be touched and washed with normal pressure.
- If signs of infection occur, such as fever, inflammation (redness plus heat) at the site or persistent arm pain for several days, return to the clinic.
- The client should be told when to come back for a followup visit, if needed. Discuss what to do if she experiences any problems. Answer any questions.
- The fibrous sheaths in the arm (tracks where the capsules were located) may be felt for some time. This sensation will disappear within a few months.

KEY POINTS FOR SUCCESSFUL REMOVALS

- An easy removal depends on correct insertion. If the capsules were placed properly, they will be easier to remove. If they were placed too deep, problems can occur.

- Routine removals should take only slightly longer than insertions—usually from 10 to 20 minutes.
- Palpate the area to identify the location of each capsule and mark the position of each capsule with a pen.
- Use recommended infection prevention practices to avoid infections.
- Inject small amounts (usually not more than 3 ml total) of the local anesthetic **under** the capsule ends nearest the original incision site. If anesthetic is applied over the capsules, it will obscure them and make removal more difficult.
- If the capsules are positioned correctly only one small incision (up to 4 mm) should be necessary for removal of all six capsules.
- Remove first those capsules that are nearest the point of the incision or closest to the surface of the skin.
- Add incremental amounts of anesthetic only **under** the capsule tips.
- Control bleeding by applying pressure.
- Do not take extraordinary measures to remove the last one or two capsules if they are difficult to reach. If removal takes more than 30 minutes, ask the client to return when the incision site is fully healed (in about 4 to 6 weeks) and try again or refer to a more experienced clinician.
- Finally, and most importantly, the clinician should work gently, carefully and patiently to avoid injuring the client's arm.

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DMPA

Basic elements of a clinical protocol for DMPA

Definition

Depot medroxy progesterone acetate

Trade name : Depo Provera, is a highly effective reversible contraceptive method , it is a three month injectable, containing a synthetic progestine which resembles the female hormone progesterone. Each dose contains 150 mg . released slowly into the blood stream from the site of intramuscular injection and provides the user with a safe and highly effective form of contraception .

Type :

Depo Provera 150 mg , (NET - EN) 200 mg 2 months

Effectiveness

Pregnancy rate usually lower than one per 100 woman years with standard regime, effect comparable to Norplant , TCU 380 A IUD, and voluntary sterilization

Mode of Action

Inhibits ovulation

Thickens the cervical mucus

Thins the endometrial lining

Method of use

Timing of the first injection, may be given any time when the woman is not pregnant

- First 7 days after the start of menses
- Immediately or within 14 days following induced or spontaneous abortion
- Immediately postpartum or up to 38 days after delivery if not breast feeding
- Between 6 weeks and 6 months if breast feeding
- If the woman has not had intercourse since her last menses
- If reliably using another effective method of contraception

Indications

Appropriate for any woman who:

- Desires an effective long - acting reversible method
- Prefers a method that requires no preparation before intercourse
- Wants a convenient method

- Doesn't want others to know about it
- Does not want to keep the method at home
- Can't comply with oral contraceptives
- Cannot use estrogen containing method
- Completed her family size, but does not desire sterilization

Non contraceptive advantages

- Reduces frequency of fibroids
- Reduces frequency of ovarian cysts
- Protect against ectopic
- Reduces incidence of pelvic inflammatory disease
- Relieves premenstrual tension
- Prevents anemia
- Reduces symptoms of endometriosis
- Reduces sickle cell crisis
- Decrease the frequency of epileptic seizures in women with epilepsy

Disadvantages

- Long acting cannot be easily discontinued or removed
- Does not protect against STDs / HIV

Contraindications

Primary precaution

- Pregnancy, known or suspected

Secondary precaution

- Undiagnosed abnormal vaginal bleeding
- Breast cancer, known or suspected
- Amenorrhoea not related to pregnancy or lactation
- Heart disease
- Acute liver or gallbladder disease

Other considerations

- Diabetes mellitus
- Hypertension

May be given but the client should be followed more closely

Client history

Assessment for history of

- Amenorrhoea
- Diabetes mellitus
- Hypertension

Physical Examination

- Blood pressure, weight
- Examination usually not needed . except to exclude pregnancy

Laboratory tests

- Random blood sugar .
- Occasionally, pregnancy test

Time of initiation

- See above for initiation
- Repeated every three months up to 2 weeks after, or 4 weeks earlier

Complications

1. menstrual changes, irregular, prolonged bleeding or spotting usually occurs
2. Increased appetite causing weight gain
3. Delay in return to fertility

Side effects ,

in rare cases

- Headaches
- Mood changes
- Nausea
- Abdominal bloating
- Breast tenderness
- Heavy bleeding may occur

Client education

Relevant information needed about

- Menstrual changes
- Weight gain
- Headaches
- Minor side effects

- Should come back if she develops heavy bleeding

Follow up

- Discuss her experience with the method
- Ask about satisfaction
- If having side effects
 - perform physical examination
 - Reassure
 - Manage accordingly
 - If can't be managed - refer
 - Use back up method if needed
 - Give injection if satisfied
 - Choose another method if dissatisfied

Reassure that she can come any time , or every 3 months .

Guideline for DMPA Counseling Skills

Initial interview

- Greet client respectfully
- Ask what FP service she is seeking and respond to any general questions client may have
- Provide general information about CPP center and FP methods available
- Explain what to expect during clinic visit
- Help client to make an informed choice :
 1. Explain attitudes or religious beliefs that may favor or rule out one or more methods
 2. Ask client about reproductive goals ,spacing, birth limitation
 3. Explain contraceptive choices available
 4. Explain benefits, advantages of each
 5. Explain risks, disadvantages of each
 6. Inquire if client has question and answer questions
 7. Help client make decisions about the method of choice

Method specific counseling

- Nurse ensures necessary privacy
- Obtain necessary biographic data (name, address, age)
- If client chooses DMPA
 1. ask her what she knows about DMPA. Correct any myths/rumors or misinformation
 2. Explain how DMPA works and its effectiveness in preventing pregnancy
 3. Explain the potential side effects of DMPA
 1. Changes in menstrual periods (irregular , spotting no periods)
 2. Possible delay in return to fertility of average four months
 3. She may gain weight
 4. She may feel some depression
 5. Explain with client how irregular or increased bleeding may effect her daily life, and if a delay in return to fertility is important to her .
 6. Explain what to expect regarding injection, frequency of return visits.
 7. Ask the client if she has any question and respond to them .
 8. Screen client for precautions using DMPA screening checklist (attached)

1. Ask all questions on history checklist
2. Check weight and blood pressure
3. Record findings

- If no precautions prepare and administer DMPA injection according to following steps

- I. Wash hands
- II. Check vial for contents (dosage)
- III. Gently shake DMPA vial
- IV. Open sterile package
- V. Attach needle to syringe
- VI. Draw DMPA into syringe
- VII. Wipe site of injection
- VIII. Allow antiseptic to dry
- IX. Administer 150 mg deep IM in deltoid or gluteal
- X. Do not massage site of injection
- XI. Wash hands
- XII. Repeat important instruction to client

- a. DMPA injections take effect Immediately if given between 1-7 days of menstrual cycle , other wise client must use back - up method or abstain from inter course for 24 hours following first injection .
- b. Return for next injection in 3 months, client may be up to 2 weeks late in returning and still be protected from pregnancy. However it is better for client to return on time .
- c. Remind client of menstrual changes she may experience and possibility of weight gain .
- d. Remind client to inform other health care providers she is on DMPA .
- e. Reassure client she may return at any time if she has question or concerns.
- f. Discuss with client returning immediately if she has any of the following problems .

- heavy vaginal bleeding
- Excessive weight gain
- Headaches
- Severe abdominal pain

- have client repeat back to you important instructions
- Give client booklet with next appointment (time and date)
- Document record the visit according to local clinic guidelines

Return Visit

- 1) Ask for any problems or complaints
- 2) Repeat the history check list
- 3) Check blood pressure and weight
- 4) If client has developed any precautions or wants to discontinue DMPA , help her to make an informed choice of other methods
- 5) If client is satisfied with DMPA method, no precautions exists, and she wishes to continue, give DMPA injection .

Condoms

Condoms

Definition

A condom is a sheath, or covering made to fit over a man's erect penis

Type

Most condoms are made of thin latex rubber

Some condoms are coated with a dry lubricant or with a spermicidal

Different sizes, shapes, colors and texture may be available

Effectiveness

must be used correctly every time to be highly effective

effective for preventing pregnancy, prevent sexually transmitted diseases

Mode of action

Condoms keep sperm and any disease organism in semen out of the vagina, stop any disease organisms in vagina from entering the penis.

Indications

1. prevention of STDs including HIV/ AIDS
2. prevention of pregnancy as a contraceptive method
3. can be used immediately after child birth
 - No effect on breast milk
 - Protect against pelvic infections
4. help preventing ectopic pregnancies
5. offer occasional contraception with no daily upkeep
6. help prevent premature ejaculation (last longer during sex)

Contra Indication

severe allergy to latex rubber

Specific instructions**How to use**

Whenever possible, show clients how to put on and off a condom. use a model, a stick, a banana, or 2 fingers to nonstarter putting on the condom.



Following Up

Helping Clients at Any Routine Return Visit

ASK QUESTIONS

1. Ask if the client has any questions or anything to discuss.
2. Ask the client about his or her experience with condoms, whether the client is satisfied, and whether the client has any problems. Is the client able to use a condom correctly every time? Also, you can check if the client knows how to use a condom; ask the client to put a condom on a model or a stick. Give any information and advice that the client needs. If the client has problems that cannot be resolved, help the client choose another method.

IMPORTANT: Urge clients at risk for STDs including HIV/AIDS to keep using condoms despite any dissatisfaction. Explain that only condoms protect against STDs during sex.

3. If clients are satisfied:
 - Give them plenty of condoms.
 - Remind them to return if they or their sex partners have symptoms of STDs, such as sores on the genitals, pain when urinating, or a discharge (drip), or are dissatisfied with condoms.
 - Give clients spermicide if they want extra protection. Counsel about spermicide use. (See page 13-10.)
 - Invite them to return again at any time that they have questions or concerns.

2. Any lubricant used should be water-based. Good lubricants include spermicides, glycerine, and specially made products. Water can be used, also. They help keep condoms from tearing during sex. Natural vaginal secretions also act as a lubricant.

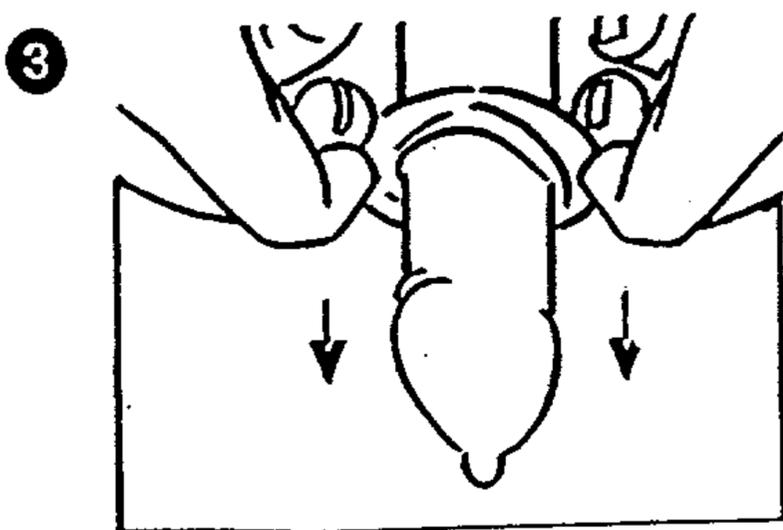
Do not use lubricants made with oil. Most of them damage condoms. Do NOT use cooking oil, baby oil, coconut oil, mineral oil, petroleum jelly (such as *Vaseline*[®]), skin lotions, suntan lotions, cold creams, butter, cocoa butter, or margarine.

3. After ejaculation hold the rim of the condom to the base of the penis so it will not slip off. The man should pull his penis out of the vagina before completely losing his erection.

4. Take off the condom without spilling semen on the vaginal opening.

5. Throw the condom away in a pit latrine (toilet), burn it, or bury it. Do not leave it where children will find it and play with it. Do not use a condom more than once.

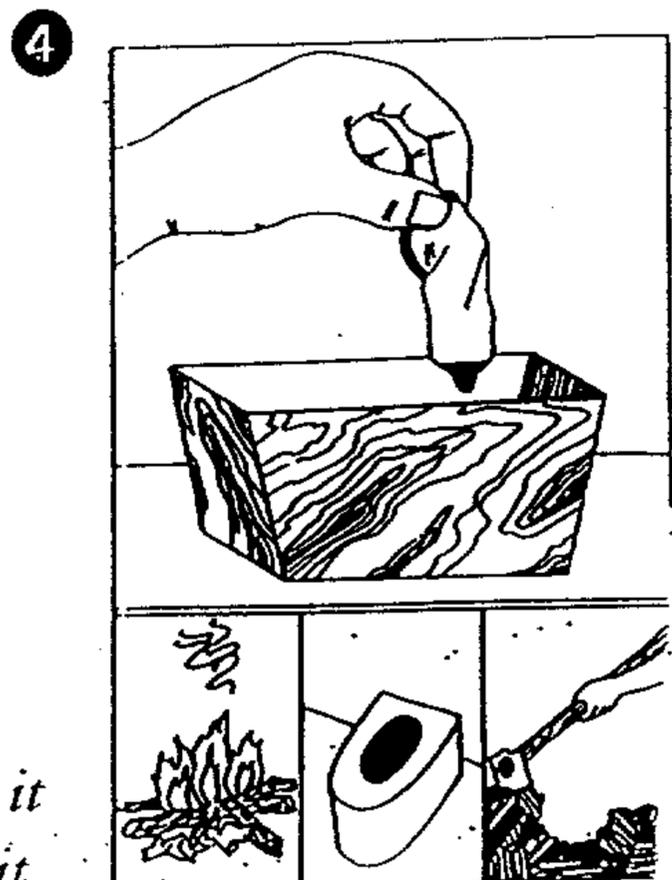
Taking Off a Condom



Slip off the condom without spilling semen.

Burn the used condom, throw it in the latrine, or bury it.

Disposing of a Used Condom



If a condom breaks:

- Immediately insert a spermicide into the vagina, if spermicide is available. Also, washing both penis and vagina with soap and water should reduce the risk of STDs and pregnancy.
- Some clients may want to use emergency oral contraception to prevent pregnancy. (See pages 5–20 through 5–25.)

GIVE TIPS ON CARING FOR CONDOMS

1. Store condoms in a cool, dark place, if possible. Heat, light, and humidity damage condoms.
2. If possible, use lubricated condoms that come in square wrappers and are packaged so that light does not reach them. Lubrication may help prevent tears.
3. Handle condoms carefully. Fingernails and rings can tear them.
4. Do not unroll condoms before use. This may weaken them. Also, an unrolled condom is difficult to put on.
5. Always use a different condom if the one you have:
 - Has torn or damaged packaging,
 - Has a manufacturing date on the package that is more than 5 years past,
 - Is uneven or changed in color,
 - Feels brittle, dried out, or very sticky.

EXPLAIN SPECIFIC REASONS TO SEE A NURSE OR DOCTOR

Urge clients to return or see a doctor or nurse if they or their sex partners:

- Have symptoms of STDs such as sores on the genitals, pain when urinating, or a discharge (drip). (See Chapter 16.)
- Have an allergic reaction to condoms (itching, rash, irritation). (See page 11–13.)

Other specific reasons to return: need more condoms, dissatisfied with condoms for any reason, have any questions or problems.

Combined Oral Contraception COCs

Combined oral contraception (COCs)

Definition Combined oral contraceptives are preparations of synthetic estrogen and progesterone which are highly effective in preventing pregnancy

Client Assessment : the primary objectives of assessing clients prior to providing family planning services are to determine :

- That client is not pregnant
- Whether any conditions requiring precaution exist for a particular method.
- Whether there are any special problems that require further assessment treatment, or regular follow - up

Types of (COCs)

- Monophasic : a fixed concentration of estrogen and progesterone hormone through out the cycle
- Multiphase : biphasic or triphasic variations of concentration of estrogen and / or progesterone throughout the cycle

Clients for (COCs)

- any woman who requests contraceptive after appropriate counseling and reaching an informed decision and who doesn't have any relevant contraindication to their use.

COCs providers

- physician , who are well trained in family planning theoretical and practical

Health Assessment

- The purpose of the health assessment is to determine the clients suitability for oral combined contraceptives. Health assessment should include:
 - a. Medical history :-
 - Age
 - Relevant family and past medical history
 - Gynecological history including LMP and menstrual pattern
 - Smoking history and current medication
 - b. Physical examination that includes :
 - weight
 - blood pressure
 - examination of extremities for varicosity's or signs of phlebitis
 - check of skin and eyes for jaundice
 - breast examination (with instructions for self examination)
 - bimanual pelvic examination and inspection of the cervix
 - other examinations as indicated by medical history
 - c. laboratory tests:
 - urine for glucose and protein

- Pap (cervical) smear
- Others as indicated by medical and / or physical examination
- COCs should not be withheld due to an absence of part or all of the physical or laboratory examinations, if no contra indications are found to exist in the medical history
- The required examinations should be scheduled within the following three months
- The medical history and the results of the examinations must be documented in the clinical records of each client specially the presence or absence of any possible contra indication and / or special situation

How to use :

(Instruction to the client)

- Start with combined monophasic preparation contains 30 -35 mg of estrogen (microgynon) .
- Change the type of pill only if there are side effects significant enough to cause the client to consider discontinuing or changing pills.
- Provide the instructions clearly in a language appropriate to the background of the client .
- Client can start taking pills :
 - any time the women is not pregnant
 - If the women wishes to start the pills on a particular day that is beyond the 7 days of her menstrual cycle, she has to use backup method for the next seven days .
 - Days 1-7 of the menstrual cycle
 - Postpartum after 6 months if using LAM
 - After 3-4 weeks if not breast feeding.
 - Post abortion. (immediately or within 7 days)
- The client should take one pill every day at the same time until the cycle is finished.
- If the client is using 28 pill pack, she should start new packet the day after she finishes the previous cycle (with out a break) .
- If the client is using the 21 pill cycle , she should skip seven days before starting a new cycle .
- Client should be advised that if she misses one or more pill , she may have some spotting or break through bleeding , but more important, she will be at greater risk of becoming pregnant.
- If one pill is missed, the client should take that pill as soon as she remembers .
- If two pills in the first two weeks are missed , the client should take two pills on two consecutive days and then continue the rest of the cycle as usual (back up method should be used) .
- If two pills are missed in the third week, or if three or more pill are missed at any time, the client should discard the current cycle and start a new one immediately.
- In all previous cases, the client should use a backup method for a minimum of one week .

- Client should be advised about the following side effects during the first three cycle and then usually disappear. They should not be a reason to discontinue the method :
 - break through bleeding
 - nausea , dizziness
 - breast tenderness
 - headaches, mild
- Acute vomiting, diarrhea and few medicines reduce the COC effectiveness and for this reason the use of backup method is required
- Client should consult the clinic if pregnancy is suspected or if she experiences any of the following warning signs of complications :
 - severe abdominal pain
 - severe chest pain, cough, shortness of breath
 - severe headache
 - eye problems - loss of vision or blurring
 - severe leg pain in calf or thigh
 - Jaundice
- Client should be given the date for her next visit and the name of the pill she took
- Client should be encouraged to ask questions to clarify any uncertainties and requested to repeat the basic instructions to check for understanding

Follow up care

The client should be seen after the first cycle and then every three months

Three month follow up protocol :

- Update the client's address and how to contact her or to refer her to the primary MCH center .
- Assess the clients satisfaction with the method .
- Determine if the client has had any problems or side effects and, if so record them in her clinical record .
- Up date the medical history and perform :
 - blood pressure
 - weight
 - any other examination as indicated
- Provide appropriate counseling as required.
- Review with the client the pill danger signs and the instructions for taking the pill
- Encourage the client to contact the clinic any time if she she has any question or complaints .

Steps for COC counseling skills

- 1) Greet client in friendly and respectful manner .
- 2) Establish purpose of visit and answer questions .
- 3) Provide general information about FP .
- 4) Explain what to expect during clinic visit .
- 5) Ask client about her reproductive goals .
- 6) Explore any attitudes or religious beliefs that either favor or rule out one or more method specific counseling (counseling area) .
- 7) Ensure necessary privacy .
- 8) Obtain biographical information name , address etc...
- 9) Give the client information about the contraceptive choices available and the risk and benefits of each .
- 10) If client chooses COC:
 - Assure client knowledge of COCs including myths and rumors prior use of COCs
 - Explain in clear and non technical languages:
 - advantages of the COC including non contraceptive benefits
 - how the pill works and the need to take every day
 - common side effects of the COC including:
 - a- Amenorrhea / very scanty period
 - b- Spotting, break through bleeding
 - c- Nausea
 - d- Headaches
 - e- Breast tenderness / fullness
 - f- Mood changes / depression
 - g- Weight gain or weight loss
 - h- High blood pressure

Respond appropriately to client's questions .

11) Screen client for COC precautions using checklist for COC users:-

- Ask all questions on history checklist
- Record responses
- Manage or refer appropriately

12) Explain and demonstrate appropriately the following :

- how to use
- when to start
- what to do if client misses one or more pills
- how client uses condoms / spermicide

- when a back up method is needed is to use
- 13) Ask client to repeat back instructions and correct any errors .
- 14) Explain in a non alarming way to give early pill danger signs, and instruct client what to do if any occur .
- 15) Ask client to repeat key instructions .
- 16) provide client with at least a three months supply of COCs
 - provide client with at least 12 condoms and or spermicide
- 17) Reassure client she may change the pills or try another method if she does not like these COCs .
 - Reassure and encourage client that doctor is available to see her if she has any problems, questions or needs advice
- 18) plan for a return visit and give client a definite return date .
- 19) Document the visit on client record .

Return visit counseling

1. Ask client if she is satisfied with the COC .
2. Ask client if she having any problems or experiencing any side effect . if yes manage as appropriate .
3. Ask client to describe / how she is taking the COCs .
4. Repeat the history checklist .
5. Briefly review key messages / instructions and ask client to repeat .
6. provide at least another 3 cycles of COCs .
7. If client wants to discontinue the COC, help her to make an informed choice of another method .
8. Encourage client to come back at any time if she has questions or problems .

Progestagen only Pills POPs

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Progestagen only pills (POPs)

Definition : The progestagen only pill (POPs) is an oral hormonal contraceptive containing only progestagen in a smaller dose than in the combined pills

Clients : POP should be provided to any woman, who requests it after appropriate assessment and counseling and with no contraindication for use

Provider: Physicians who are well trained in family planning theoretically and practically

Types : 35 pill pack → 300 mg levonorgestrel
28 pill pack → 75 mg Norgestrel (Overette, Femulen)

(Client instruction)

- Provide instructions clearly and in a language appropriate to the backgrounds of the client
- Client should start the first cycle of POP:-
 - a- Within the first five days of the menstruation preferably the first day
 - b- Any time the client is sure not pregnant
 - c- Postpartum, after 6 months if using LAM , after 6 weeks if breast feeding (not on LAM) immediately or within 6 weeks if not breast feeding
 - d- Post abortion : immediately
- Client should take one pill every day at the same time until the the cycle is finished. She should start a new cycle the day after she finishes the previous cycle with out break
- Client should be informed , if she misses one or more pill, she may have some spotting, breakthrough bleeding or pregnancy, she should start taking the pill as soon as possible and she should use backup method for the next 48 hours after restarting the pills
- Diarrhea and vomiting interfere with the effectiveness of the pill . In these cases the use of backup method for at least seven days is required.
- Client should consult the clinic if she experiences side effects, has any concern or problem concerning the pill
- Client should have a date for the next visit and the name of the pill she has been given
- Encourage the client to ask questions to clarify any uncertainties and request her to repeat the basic instructions to check for understanding .

Follow up care as for COCs

Duration : when a special indication for POP use no longer exists, consideration should be given to the use of other contraceptive methods which are more effective and have a better cycle control .

CPP Guidelines

Infant Health

Maternal Health

Counseling and Communication

Family Planning



Comprehensive Postpartum Project

دليل العناية بصحة الأم

المملكة الأردنية الهاشمية
وزارة الصحة

كانون ثاني ١٩٩٧



Comprehensive Postpartum Project

دليل وسائل تنظيم الأسرة

المملكة الأردنية الهاشمية
وزارة الصحة

كانون ثاني ١٩٩٧



Comprehensive Postpartum Project

دليل العناية بصحة الطفل

المملكة الأردنية الهاشمية
وزارة الصحة

كانون ثاني ١٩٩٧



Comprehensive Postpartum Project

دليل المشورة
في رعاية صحة الأم والطفل
وتنظيم الأسرة

المملكة الأردنية الهاشمية
وزارة الصحة

كانون ثاني ١٩٩٧