MANUAL

FOR TRAINING

DOCTORS AND NURSE/MIDWIVES

ON

LONG-ACTING REVERSIBLE CONTRACEPTIVE (LARC) METHODS (IUDs and Contraceptive Implants)

- **Participants' Reference Book**

2015

FOREWORD

The unacceptably poor maternal and child health indices in Nigeria have been of much concern to various governments at all levels in the country. In efforts to address these unfavorable indices, Family Planning which is one of the pillars of safe motherhood is being vigorously implemented through series of interventions. Notable amongst these, is the introduction of Task Shifting policy for Community Health Extension Workers, CHEWS to provide Injectables with mentoring for ensuring wider coverage of FP services in the country. The success being achieved led stakeholders to seek for Federal Government's approval for the provision of Long Acting Reversible Contraceptive Methods (IUDs and contraceptive Implants) which was approved by the National Council on Health in 2014.

To this end the Federal Ministry of Health, Marie Stopes International Organisation Nigeria (MSION), Clinton Health Access Initiative (CHAI), United Nations Population Fund (UNFPA), and other partners met and developed a draft Training Manual, Participant Reference Book and Supervisory Checklist for impacting knowledge and skills on CHEWS to provide quality family planning services to clients who need IUDs and implant contraceptives. This intervention is expected to reduce the high unmet need for services and accelerate achievement of the target Family Planning Blueprint of 36 percent Contraceptive Prevalence Rate by the year 2018.

The Federal Ministry of Health recognizes and appreciates all the development partners, especially Marie Stopes Nigeria, for their efforts in making all these interventions realizable and assures partners of government supports for further efforts at improving the health and well-being of our women and children in the country.

May I say that it is one thing to develop valuable documents and it is another to make effective use of them. Therefore, it is my expectation that all stakeholders will make the best use of these manuals and checklist to improve skills of service providers for provision of quality family planning services in Nigeria.

I thank you all while strongly recommending the National Long Acting Reversible Contraceptive (LARC) Manuals and Supervisory Checklists for use to support provision of quality family planning services in the country.

Professor Isaac Folorunso Adewole FAS, FSPSP, D.Sc (Hons)
Honourable Minister of Health

November, 2015

ACKNOWLEDGEMENT

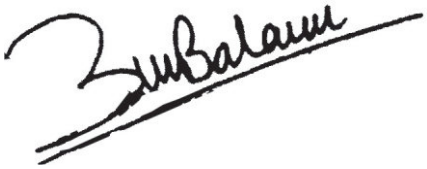
The development of the Long Acting Reversible Contraceptive (LARC) Training Manual has been recognised as another milestone in building the technical competence of the health workers in the provision of quality Family planning service. This achievement has been through the concerted effort of the Ministry and its technical partners.

The Federal Ministry of Health would like to extend its gratitude to individuals and organizations who contributed to the development of this competency based Long Acting Reversible Contraceptive Training manual for health workers in the provision of Family Planning services. The manual will continually strengthen the skills and capacity of health workers.

I commend the support of our esteemed partners particularly United Nations Population Fund (UNFPA) who provided technical support to Federal Ministry of Health in the development of the LARC Training Manual

I also acknowledge the contributions of other stakeholders such as NPHCDA, MSION, ARFH, MSD, JHPIEGO, Pathfinder International, NURHI, Bayer Health Care and Independent consultant Prof. Adekunle Adeyemi who worked tirelessly to make the manual a success.

Finally, I want to thank the Head, Reproductive Health Division, Dr Kayode Afolabi and also commend the immense contribution of the technical officers in FP branch of the RH Division for their drive and support in the development of the training manual for health workers in the country.



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ACRONYMS

AIDS	Acquired Immune Deficiency Syndrome
ANC	Antenatal Care
ART	Antiretroviral Therapy
ARV	Antiretroviral
BCS	Balanced Counselling Strategy
BCS+	The Balanced Counselling Strategy Plus
CBO	Community Based Organization
CSO	Community Serving Organization
FMOH	Federal Ministry of Health
GON	Government of Nigeria
HCT	HIV Counselling and Testing
HIV	Human Immunodeficiency Virus
IEC	Information Education and Communication
LGA	Local Government Area
M&E	Monitoring and Evaluation
MIS	Management Information System
NACA	National Agency for the Control of AIDS
NDHS	Nigeria Demographic and Health Survey
NGO	Non-Governmental Organization
NPC	National Population Commission
PLWHA	Persons Living with HIV and AIDS
PMTCT	Prevention of Mother to Child Transmission
RTI	Reproductive Tract Infections
SDP	Service Delivery Point
SOP	Standard Operating Procedure
STI	Sexually Transmitted Infection
SOPs	Standard Operating Procedures/Standards of Practice
VCT	Voluntary Counselling and Testing
WHO	World Health Organization

COURSE OVERVIEW

TRAINING GOAL

The overall goal of the training programme is to provide participants (service providers) with the management skills necessary to provide quality IUD and Implant services.

Overall Objective:

To develop skills of service providers in the administration of long-acting reversible contraceptives (LARC)

Specific Objectives:

Specifically, by the end of the workshop, participants will be expected to be able to:

- Describe the mechanism of action, effectiveness and side effects of IUDs and implants
- Describe the essentials of client Counselling and follow-up
- Demonstrate the preparation and care of the clients before, during, and after insertion and removal procedures.
- Demonstrate insertion and removal skills of IUD and implants using sterile techniques and following standard protocols;
- Insert 5 IUDs each using the standard protocol and remove 5 implants each using the standard protocol
- Demonstrate actions to be taken in the event of complications and procedures for follow up care;
- Describe the management skills needed to provide quality IUD and implant services.

COURSE DESIGN

The course consists of classroom and clinic sessions that focus on key aspects of IUD and Implant service delivery. Successful completion of the course will be based on the acquisition of knowledge, the development of the right attitude and the mastery of skills required for quality IUD and implant services. The duration that will be allocated to each part of the training workshop is shown below:

Day 1	Day 2	Day 3	Day 4	Day 5	Day 6
Lectures 4 hours	Lecture/ Discussion 2 hours	Lecture/ Discussion 1 hour 30 mins	Lecture/ Discussion 3 hours	Lecture/ Discussion 2 hours	Lecture/ Discussion 4 hours
Demonstration/ Model Practice 1 hour 30 min	Model Practice/Clinic Practice 4 hours 45 mins	Clinical Practice 5 hours 45 mins	Clinical Practice 4 hours 15 mins	Clinical Practice 3 hours 45 mins	Evaluation /Closing 2 hours 30 mins

TEACHING/LEARNING METHODS

- Discussions/Brainstorming sessions
- Illustrated lectures
- Individual and group exercises
- Role play/Case studies
- Simulated practice (on models)
- Guided clinical activities
- Demonstration/Return demonstration

TEACHING MATERIALS

- Teaching Videos/VCDs
- Anatomic model – Pelvic, Arm
- Audio-visual AIDs
- Power Point projector and Laptop
- Flip Charts/Stand
- IUD Insertion and Removal Learning Guides
- Implant Insertion and Removal Learning Guides
- Participants' Handbook
- Trainers' Manual

EVALUATION

- Participants' Daily Evaluation
- Pre- and post–course questionnaires
- Pre-test Matrix
- Counselling and Clinical Skills Checklists
- End-of-Course Evaluation

DURATION OF TRAINING - Six Days

PROPOSED WORKSHOP AGENDA

Note: To make the training programme very participatory, all sessions on Warm-up, Review of agenda, Review of the Day's activities and Review of Previous day's activities must be conducted by the Participants (except on the first day)

Monday - Day 1

8:00 a.m. – 8:30 a.m.	Participants' Registration
8:30 a.m. – 8:45 a.m.	Opening
8:45 a.m. – 9:15 a.m.	Warm-Up/Introduction
9:15 a.m. – 9:30 a.m.	Course Overview/Ground Rules
9:30 a.m. – 10:00 a.m.	Pre-Test
10:00 a.m. – 11:00 a.m.	Overview of Family Planning in Nigeria *(Module 1)*
11:00 a.m. – 11:30 a.m.	**Tea Break**
11:30 a.m. - 12:30 p.m.	Product Profile and Medical Eligibility Criteria for CuT 380A *(Module 2: Session 1)*
12:30 p.m. – 1:30 p.m.	Product Profile and Medical Eligibility Criteria for Jadelle®, Zarin®, Implanon® *and Implanon NXT™ (Module 2: Session 2)*
1:30 p.m. - 2:30 p.m.	Observations of Clinical demonstration IUD and Implant Insertions by Trainers and Preceptors
2:30 p.m. – 3:30 p.m.	**Lunch**

3:30 p.m. - 4:30 p.m.	Using Learning Guides during Model and Clinical Practice *(Module 3)*
4:30 p.m. – 5:30 p.m.	IUD Insertion Techniques/Practice on Arm Models *(Module 4: Session 1)*
5:30 p.m. – 5:45 p.m.	Recap of the Day's Activities

Tuesday - Day 2.

9:00 a.m. – 9:10 a.m.	Warm Up
9:10 a.m. - 9:20 a.m.	Review of the Day's Agenda
9:20 a.m. – 9:30 a.m.	Reflections of Previous Day's Activities
9:30 a.m. – 10:30 a.m.	Implant Insertion Techniques and Model Practice *(Module 4: Session 2)*
10:30 a.m. – 10:15 a.m.	**Tea Break**
10:15 a.m. – 2:00 p.m.	Demonstration and Clinical Practice *(Module 5)* **Group A:** Clinical Practice (IUDs) **Group B:** Clinical Practice (Implants)
2:00 p.m. – 3:00 p.m.	**Lunch**
3:00 p.m. – 3:30 p.m.	Reflections from Clinical Practice Sessions
3:30 p.m. – 4:30 p.m.	Introduction to Counselling *(Module 6: Session 1)*
4:30 p.m. – 5:30 p.m.	The Balanced Strategy Plus (BCS+) *(Module 6: Session 2)*

Wednesday - Day 3.

9:00 a.m. – 9:10 a.m.	Warm Up
9:10 a.m.- 9:20 a.m.	Review of the Day's Agenda
9:20 a.m. – 9:30 a.m.	Reflections of Previous Day's Activities
9:30 a.m. – 10:30 a.m.	Implant Removal Techniques *(Module 4: Session 3)*
10:30 a.m. – 10:15 a.m.	**Tea Break**
10:15 a.m. – 2:00 p.m.	Clinical Practice *(Module 5)*

	Group A: Clinical Practice (Implants)
	Group B: Clinical Practice (IUDs)
2:00 p.m. – 3:00 p.m.	**Lunch**
3:00 p.m. – 3:30 p.m.	Reflections from Clinical Practice Sessions
3:30 p.m. – 4:30 p.m.	IUD Removal Techniques *(Module 4: Session 4)*
4:30 p.m. – 5:00 p.m.	Recap of the Day's Activities

Thursday - Day 4.

9:00 a.m. – 9:10 a.m.	Warm Up
9:10 a.m.- 9:20 a.m.	Review of the Day's Agenda
9:20 a.m. – 9:30 a.m.	Reflections of Previous Day's Activities
9:30 a.m. – 10:30 a.m.	Infection Prevention Practices: Hand washing and Gloving *(Module 8: Session 1)*
10:30 a.m. – 10:15 a.m.	**Tea Break**
10:15 a.m. – 2:00 p.m.	**Group A:** Clinical Practice (IUDs)
	Group B: Clinical Practice (Implants)
2:00 p.m. – 3:00 p.m.	**Lunch**
3:00 p.m. – 3:30 p.m.	Reflections from Clinical Practice Sessions
3:30 p.m. – 4:30 p.m.	Infection Prevention Practices: Disinfection and Sterilization *(Module 8: Session 2)*
4:30 p.m. – 5:30 p.m.	Infection Prevention Practices: Disposal of Sharps and Wastes *(Module 8: Session 3)*
5:30 p.m. – 5:45 p.m.	Recap of the Day's Activities

Friday - Day 5.

9:00 a.m. – 9:10 a.m.	Warm Up
9:10 a.m.- 9:20 a.m.	Review of the Day's Agenda
9:20 a.m. – 9:30 a.m.	Reflections of Previous Day's Activities

9:30 a.m. – 10:30 a.m.	Management of Complications arising from Use of IUDs *(Module 7: Session 1)*
10:30 a.m. – 10:15 a.m.	**Tea Break**
10:15 a.m. – 2:00 p.m.	**Group A:** Clinical Practice (Implants)
	Group B: Clinical Practice (IUDs)
2:00 p.m. – 3:00 p.m.	**Lunch**
3:00 p.m. – 3:30 p.m.	Reflections from Clinical Practices
3:30 p.m. – 4:30 p.m.	Management of Complications arising from Use of Implants *(Module 7: Session 2)*
4:30 p.m. – 5:00 p.m.	Recap of the Day's Activities

Saturday - Day 6.

9:00 a.m. – 9:10 a.m.	Warm Up
9:10 a.m.- 9:20 a.m.	Review of the Day's Agenda
9:20 a.m. – 9:30 a.m.	Reflections of Previous Day's Activities
9:30 a.m. – 10:30 a.m.	Record Keeping and Management Information System (MIS) *(Module 9: Session 1)*
10:30 a.m. – 10:15 a.m.	**Tea Break**
10:15 a.m. – 11:15 a.m.	Contraceptive Logistics Management System (MIS) *(Module 9: Session 2)*
11:15 a.m. – 11:30 a.m.	**Tea – Break**
11:30 a.m. – 12:15 p.m.	Clinic Facilities and Requirement *(Module 10: Session 1)*
12:15 p.m. – 1:00 p.m.	Personnel Management *(Module 10: Session 2)*
1: 00 p.m. – 1:30 p.m.	Post-Test
1:30 p.m. – 2:30 p.m.	End-of-Course Evaluation/Closing
2:30 p.m.	**Lunch and Departure**

MODULE ONE

OVERVIEW OF FAMILY PLANNING IN NIGERIA

Module One: Overview of Family Planning in Nigeria
Time: 1 hour

Learning Objectives:

By the end of the session participants should be able to:

- Describe Nigeria's rapid population growth and the Age Structure of the population
- Discuss the trends in Nigeria's Fertility Rates and how they impact development
- Compare Nigeria's fertility rates with those of other countries
- Discuss the use of modern contraception in Nigeria
- Discuss the trends in Nigeria's Contraceptive Prevalence Rates (CPR)
- Classify the different types of modern contraceptive methods
- Discuss the barriers to the use of modern contraception in Nigeria

Session Overview

- Nigeria's Rapid Population Growth and Age Structure of Nigeria's population
- Trends in Nigeria's Fertility Rates and how they impact development
- Comparing Nigeria's Fertility Rates with those of other countries
- Use of modern contraception in Nigeria
- Trends in Nigeria's Contraceptive Prevalence Rates (CPR)
- Classification of modern contraceptive methods
- Barriers to the use of modern contraception in Nigeria

Methods

- Lecture
- Discussion
- Brainstorming

Materials

- Flip chart/Newsprint
- Markers
- LCD Projector and Laptop

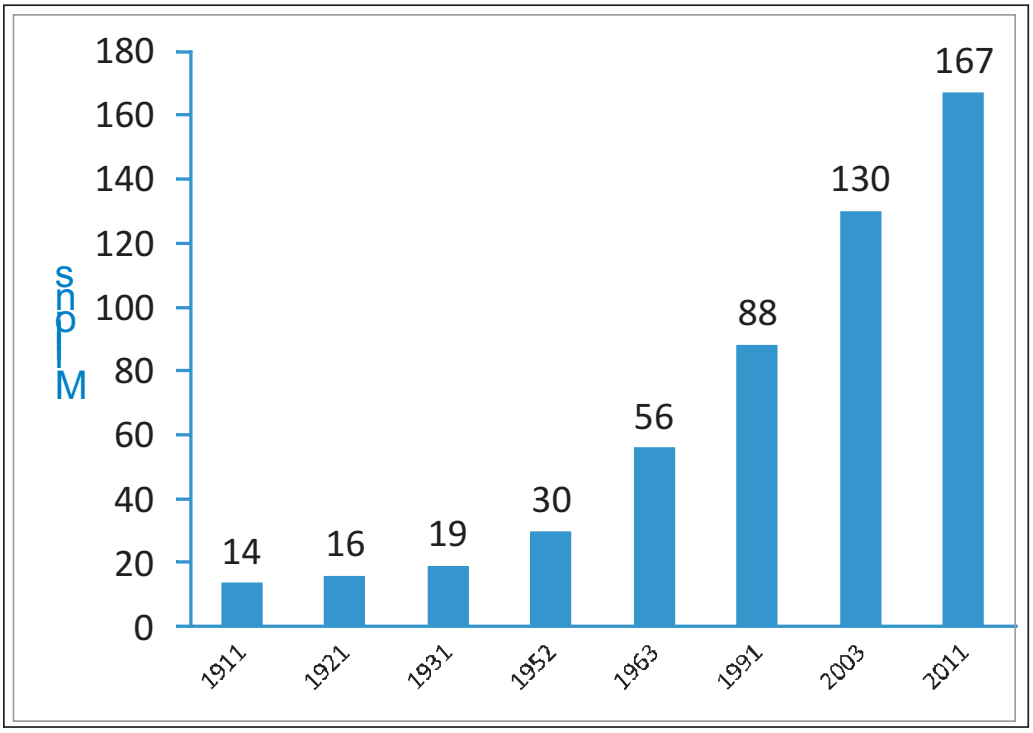
CONTENT

In the past four decades, Nigeria has made very bold efforts to achieve rapid economic development. However, amongst other factors, rapid population growth has affected the quality of life and made the achievement of socio-economic development goals difficult.

Nigeria's Population Growth

In 1963, both Nigeria and Britain had the same population size of 56 million. However in 2011, Nigeria's population stood at 167million while Britain was 62 million. Between 1963 and 2011 (48 years), Nigeria tripled its population and with a sustained fertility rate of 5.7 and growth rate of 3%, the population will double in less than 24years.

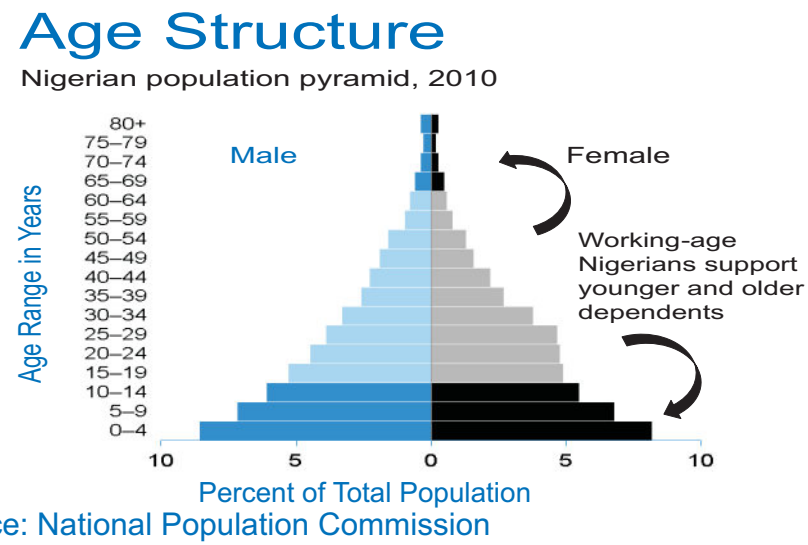
Figure 1.1: Population of Nigeria – Rapid Growth



Age Structure of Nigeria's Population

Nigeria has a very youthful population which is not good for the country's economic development. Having fewer children will certainly help the economy. The darker bars at the bottom of the figure below represent Nigerian children aged zero through fourteen. The boys are on the left and the girls are on the right. These are all children that the adults, in the middle, have to feed and educate. So, these are “dependents” and the adults are the working-age population. Our older citizens are also dependent, assuming they are not working, so they too need working-age people to support them. Therefore, the ratio of people who are in the working-age to people who are too young or old to work (dependents) is low, about 1:4. That is, every working class person is feeding at least four mouths, and little is left to grow its economy, such as investing in economic activities, business, and more education.

Figure 1.2: Age Structure of Nigeria's Population



Nigeria Population Pyramid 2013

This implies that the more dependents a population has, the harder it is for it to grow its economy because all the money is spent on just trying to help these dependents survive (feeding them, giving them the basics they need to survive). However, when there are fewer dependents (fewer children), then the working-age population can spend more money on other things like investments that make the economy grow.

High Fertility Rates

Nigeria has very high fertility compared to other nations, whether they are Christian, Muslim, wealthier or poorer, larger or smaller.

One main reason for this is the country's high fertility rate. When Nigeria is compared to a lot of countries – whether they are wealthier or poorer countries, Muslim or Christian countries, tiny countries or large countries – the fertility rate is high in comparison. Only a few nations, such as Chad, have higher fertility.

Figure 1.3: Current Fertility Rates in Nigeria by Zones

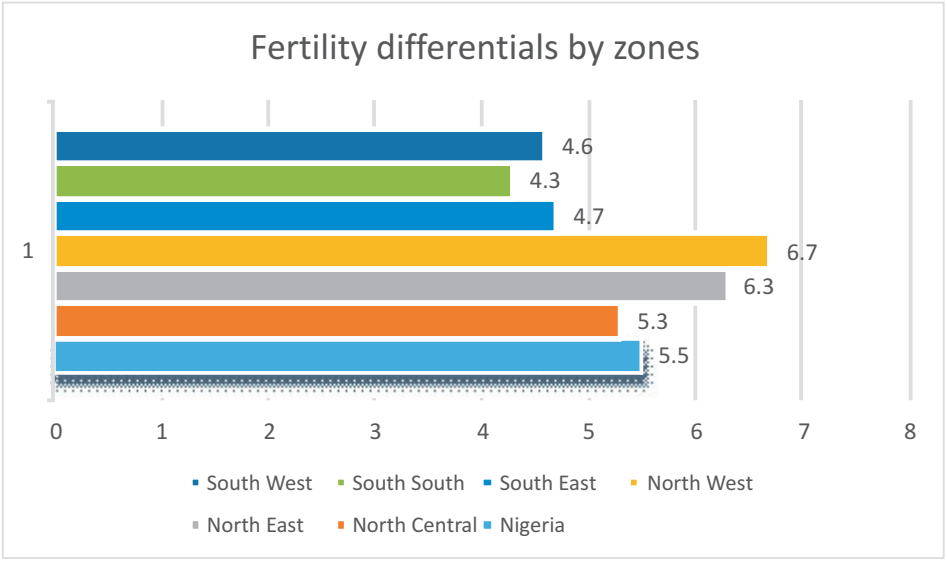


Figure 1.4: Comparison of Nigeria's Fertility Rate with Other Countries

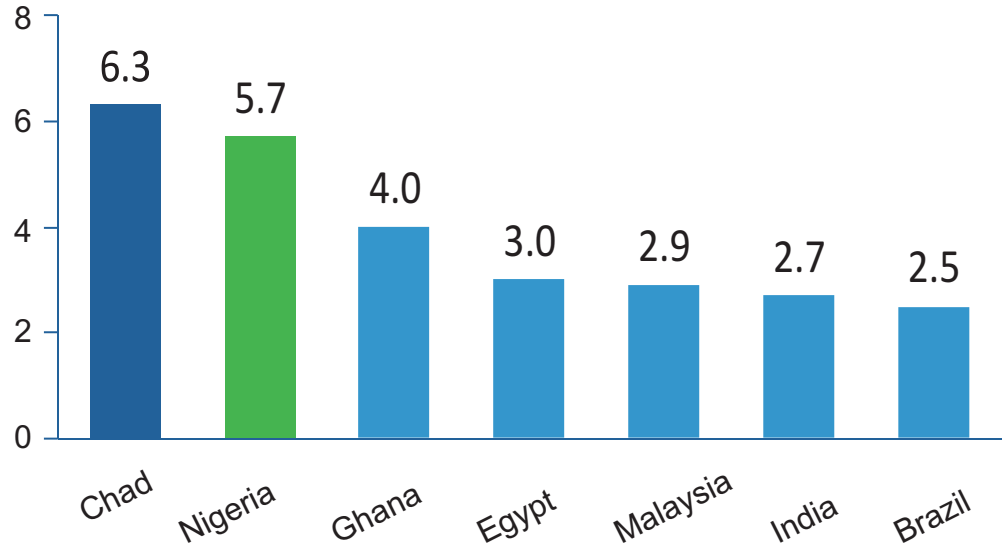
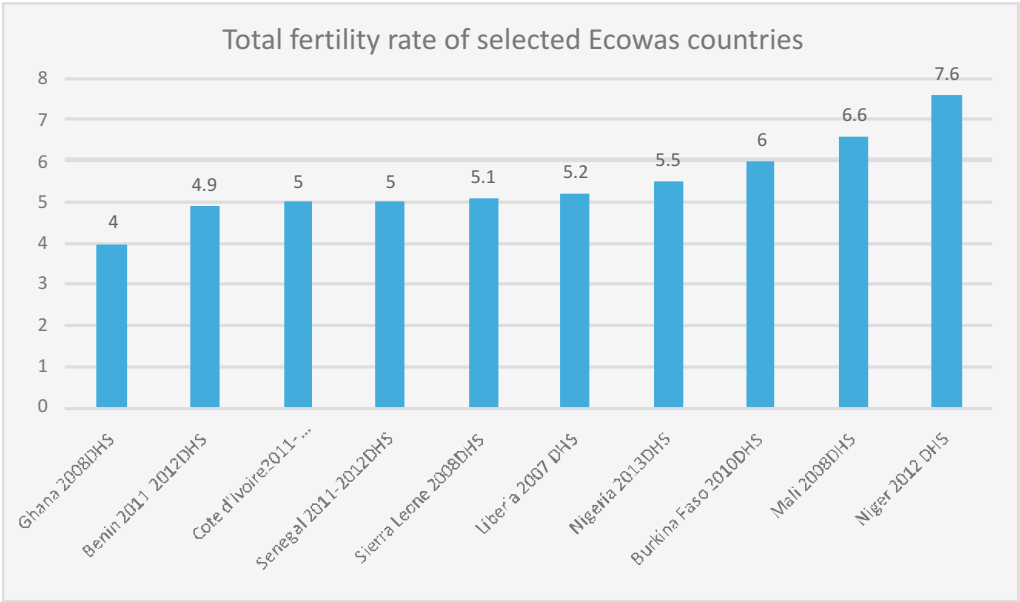


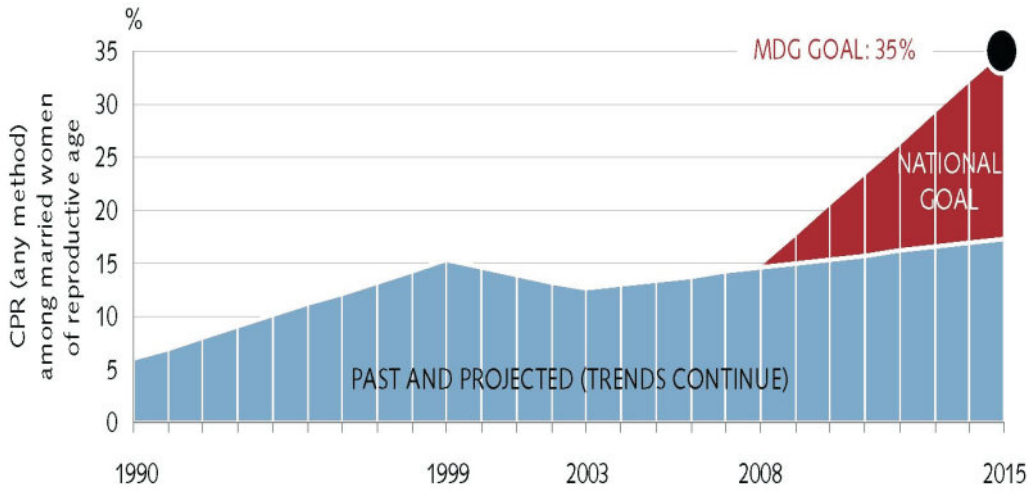
Figure 1.5: Comparison of Nigeria's Fertility Rate with Other ECOWAS Countries



Use of Modern Contraceptives

One main reason why fertility is high in Nigeria is the low use of modern contraceptives. Only 15% of our married women of childbearing age use modern contraception right now. In comparison, some of the other countries have up to 77% of married women using modern contraception. Can the country not afford to pay for modern contraception?

Figure 1.6: Trends in Contraceptive Prevalence Rates



Sources: *1998, 2000, 2003, 2008 and 2013 Demographic and Health Surveys, Reality √ projections for intervening and future years*

Family Planning is an important health measure contributing to the health of women, children and men. A common view, albeit rather narrow, held by most people is that family planning is associated with the use of contraceptives to limit family size. Used in a less specific sense, family planning helps everyone. Family planning:

- helps women to protect themselves from unwanted pregnancies;
- saves the lives of children by helping women space births;
- helps men - and women – care for their family;
- improves family wellbeing;
- helps the nation develop,
- Gives everyone a better opportunity for a good life.

How Fertility Impacts Development

Fertility decline helps many families out of poverty. (UNFPA: “Slower population growth has encouraged overall economic growth in developing countries”)

It is known that fertility can relate to development because if families have fewer children per woman, then they have fewer mouths to feed. At the family level, having fewer mouths to feed could help to reduce poverty and free more money to educate or help each child. And many analysts, including UNFPA analysts, have done research that shows slower population growth also reduces poverty at the national level.

Summarizing these studies, the *State of the World's Population 2002* report by the United Nations Population Fund makes the observation that “slower population growth has encouraged overall economic growth in developing countries.”

Nigeria can learn from East Asia. When they lowered fertility, they experienced incredibly fast development. Around 1960, the development indicators in many East Asian countries were very close to what they are in much of sub-Saharan Africa today. The gross domestic product per capita was low and fertility and population growth rates were high. Many international observers didn't see how the Asian countries were going to escape poverty.

In Thailand, from the 1960s to the 1990s, fertility levels fell from a little bit higher than where Nigeria is today down to 2.3 births per woman. And during those same years, the GDP per capita was rising very fast. This is not a coincidence. Thailand's drop in fertility helped to free up resources, which, when properly invested, contributed to rapid economic growth.

In economic terms, fertility decline and thus slower population growth creates:

- The potential to increase the rate of economic growth
- A path out of poverty for many families

At the family level, when parents have fewer children, they can focus on the quality of each child's education, nutrition, or other aspects of life. Each child can have more educational and other opportunities, as there are fewer dependent children per working adult. If there are fewer dependents per working adult, then more money can be saved and invested in things like modern agriculture.

Education

In the education sector, if Nigeria continues on its current path of high fertility, the number of students that will enter primary schools will increase - more than double by 2040. How shall the nation take care of these students? If the country takes the path of low fertility, the number of students entering primary school won't rise as quickly, making the number of students more manageable. And if the nation has fewer students under the Low Fertility Scenario, there will be less pressure to build new schools.

Health

Fertility affects health mainly because certain types of births are exceptionally risky.
"Risky births" are defined as births that are too closely spaced, too young or too old, or when the mother has too many children. All of these could cause death or injury to the mother and child. In Nigeria, more than 6 in 10 births fall in at least one of the high risk categories. In Nigeria, this means that more than half the children born have an elevated risk of dying before their 5th birthday. This risk could be significantly diminished by using child spacing to avoid births that are too closely spaced or that fall into other high-risk categories.
Lower fertility also puts less strain on the nation's healthcare system and health workers, including nurses/midwives and CHEWs. At present, the country does not have adequate health workers, especially midwives. The number of midwives required would increase faster under the High Fertility Scenario. But under the Low Fertility Scenario, the number of midwives required would increase more slowly.

The same is true for hospitals. Nigeria may need more hospitals to care for even its current population, but under rapid population growth, it will need even more hospitals, not just for child birth but for other medical necessities as well. By the current estimates, even to just maintain current standards of care, the number of hospitals required in Nigeria would more than double between now and 2040 if the nation continues at high fertility. But if it is able to lower fertility, then the number of hospitals required will not increase as much, and the challenge will be easier to manage. By 2040, Nigeria could save 47 billion Naira in health expenditures under the Low Fertility Scenario.

In summary, lower fertility in Nigeria just in the next 10 years could help us avert 1.5 million child deaths. It could help us save as much as 31,000 women's lives, reduce health complications for mothers and children, and reduce stress on the national budgets and medical staff.

Agriculture

Nigeria strives for a productive agricultural sector and wants to conserve natural resources for sustainable development.

In the agricultural sector, as in other sectors, lower fertility yields benefits for Nigeria. Nigeria

has become a rice-eating country. Under the High Fertility Scenario, more people are eating rice - 1.8 billion metric tons by 2040. Where is this rice going to come from? This is a question for national security—whether the country can feed the number of people it has. Nigeria is already importing some rice. If the country pursues a Low Fertility Scenario, the rice needed could be reduced by 400 million metric tons per year by 2040. This would also mean less money needed to pay for rice imports.

Economy

The national development policy is to become a modern and prosperous country over the next 30 years. The economy can benefit in many ways from slower population growth. If it is assumed that Nigeria's real GDP grows at 6 percent each year, then under the High Fertility Scenario, each Nigerian's average GDP will not grow very fast. Annual GDP per capita will only grow to 748,000 Naira per person by 2040. But if there are fewer people, the nation can invest more in them, and spread the wealth among fewer people, GDP per person would grow faster.

If Nigeria has lower fertility, it will also need fewer jobs because there will be fewer teenagers that are growing up and looking for jobs. In the High Fertility Scenario, the number of additional jobs that Nigeria needs each year will grow so fast that it is probably impossible to keep up. These new job seekers will have nothing to look forward to, no hope. And under the Lower Fertility Scenario it still is an incredible challenge to try to generate enough jobs for these teenagers who are growing up and entering the workforce, but at least it's a lot more manageable. There will be fewer new job seekers and better security.

CLASSIFICATION OF MODERN FAMILY PLANNING METHODS

A. HORMONAL CONTRACEPTIVES

Oral Pills

- Combined pills
- Progestin-only pills

Vaginal Pills

- Combined pills – intermittent or continuous

Emergency Contraceptive Pills

- Postinor 2

Injectables

- Combined injectables, e.g. Norigynon
- Progestin-only injectables, e.g. Depot Medroxy-progesterone acetate (DMPA) or Norethisterone enanthate (NET-EN)

Implants

- Biodegradable implants
- Non-biodegradable implants, e.g. Jadelle, Zarin and Implanon

B. INTRA-UTERINE CONTRACEPTIVE DEVICES (IUD)

- Copper T 380A.
- Minera

C. BARRIER METHODS

- Male Condom
- Female Condom e.g. Femshield
- Diaphragms

- Cervical caps

D. VOLUNTARY SURGICAL CONTRACEPTION

- Bilateral tubal occlusion
- Vasectomy

E. NATURAL FAMILY PLANNING METHODS

- Lactational amenorrhoea method (LAM)
- Cervical mucus or Billings Ovulation Method
- Calendar (rhythm) method
- Sympto-thermal method

F. IMMUNOLOGICAL METHODS

- Anti- HCG Vaccine
- LH/RH Vaccine

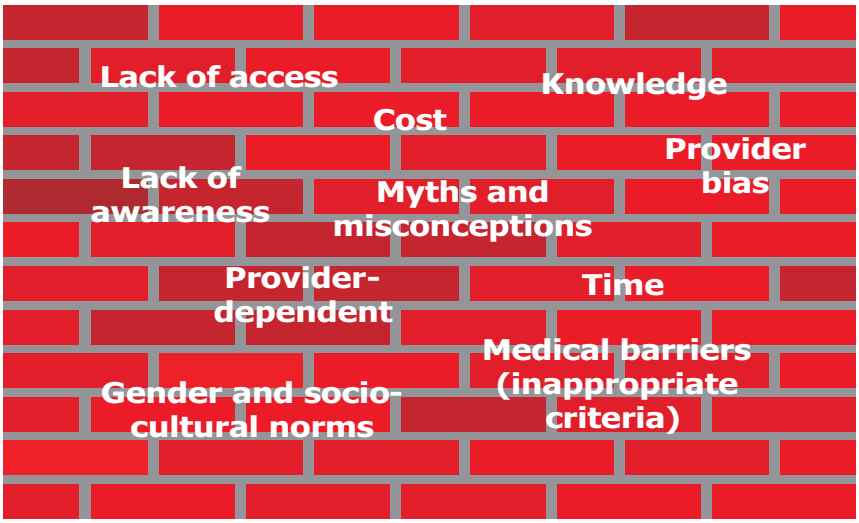
G. OTHERS

- Gossypol

The wide choice of family planning methods now available allows health programmes to offer an appropriate method to each individual. Most modern contraceptive methods are virtually without risk and in addition, offer substantial benefits besides preventing pregnancies. The methods most often used to avoid closely spaced pregnancies or pregnancies at a young age are oral contraceptives, barrier methods and spermicides, emergency contraceptive pills (ECPs) and natural family planning methods. Intra-uterine devices (IUDs), injectables and implants are longer acting methods, and may be preferred by older women or those who already have all the children they want. Since voluntary surgical contraception is generally permanent, it is inappropriate for couples who want more children.

Barriers to the Use of Contraceptive Methods in Nigeria

Family Planning clients are often restricted by the choice of methods offered to them, or are deterred from using contraception due to the side effects related to use of available methods. Other barriers include lack of access, lack of knowledge and awareness and provider bias. Some methods are provider-dependent and are not under the control of the client. In addition, myths and misconception, inappropriate criteria, gender and socio-cultural norms and inappropriate clinic hours also constitute major barriers to the use of



SUMMARY

The National Population Policy recognized the adverse effect of rapidly growing population on the quality of life, development and security, hence, the Federal Government, in partnership with donor agencies, have intensified effort to ensure that Nigerian couples have access to free contraceptive commodities.

Nigeria seeks better job, food security, better health and education for its people. The nation wants wealthier people (higher per capita GDP) and a better quality of life. And to do that, the Nigerian people need to advocate for support for family planning at the state, local, and community levels, and expand access to family planning commodities

Meeting the contraceptive needs of women generally is an important component of comprehensive maternal and child health services. To assist women who want to prevent or delay pregnancies, programmes should offer family planning information and services. Careful counselling can help women to choose methods that are safe, effective and convenient - methods that best meet their short and long term family planning needs.

Well-designed family planning programmes provide services that women require both before and after their babies are born. When women's reproductive health needs are met, they have greater chance of not dying from childbirth and healthier families.

EVALUATION

- Mention how Nigeria's high Fertility Rates has impacted on its development
- Discuss the trends in Nigeria's Contraceptive Prevalence Rates (CPR)
- Mention the different types of modern contraceptive methods
- What are the barriers to the use of modern contraception in Nigeria

MODULE TWO

INTRODUCTION TO IUD AND IMPLANTS

Session 1: Product Profile and Medical Eligibility Criteria for CuT 380A
Session 2: Product Profile and Medical Eligibility Criteria for Jadelle^{R}, Zarin^{R} Implanon^{R} and Implanon NXT^{TM}

Module Two: Session 1: Product Profile of CuT 380A and Medical Eligibility Criteria for IUDs

Time: 1 hour
Learning Objectives:
By the end of this session, the participants should be able to:

- **Define the Intrauterine Contraceptive Device (IUD) and classify the types a**vailable;
- Mention the mechanism of action, effectiveness, advantages and the disadvantages
- Discuss the Medical Eligibility Criteria for use of IUDs

Session Overview

- Definition of the Intrauterine Contraceptive Device (IUD)
- Classification of the types available;
- Mechanism of action, effectiveness, advantages and disadvantages
- Medical Eligibility Criteria for use of IUDs

Methods

- Lecture
- Discussion
- Brainstorming

Materials

- Flip chart/Newsprint
- Markers
- LCD Projector and Laptop
- Samples of IUDs

CONTENT

Intrauterine devices (IUDs) are small flexible devices made of metal and/or plastic that can prevent pregnancy when inserted into a woman's uterus through her vagina. It is a commonly used family planning method in Nigeria; seems to be the most preferred method by clients attending family planning clinics in the south-west of Nigeria. Unlike oral contraceptives, the effects of many IUDs are limited within the uterus. IUDs do not require continued motivation once inserted correctly, since insertion is required only once for a long period of time. They are highly effective.
It had been known from antiquity that a foreign body inserted into the uterus will provide a contraceptive effect. Semi-precious polished stones were used. The first IUD appeared in the market in the 1960's. The past four decades have witnessed the emergence of new shapes and addition of copper, zinc and hormones.

Classification of Intra-uterine Devices
They can be classified as follows:

A. Non-medicated (or first generation) IUDs, e.g.
   - Lippes loop,
   - Dalkon Shield.

B. Medicated IUDs (or second generation) i.e., - those which serve as carriers or vehicles for pharmacologically active anti-fertility agents, e.g.

   - Copper T-200, Copper 7, Copper T380A
   - Multiload (MLCu-375),
   - Nova T, (which contains copper and silver,
   - Mirena (which contains levonorgestrel).

Non-Medicated IUDs

The Lippes Loop

The Lippes loop was commonly used in family planning clinics in Nigeria and consists of 100 loops that can be sterilized with antiseptic solution. Lippes Loop were manufactured different sizes - A, B, C and D. Size A was the smallest, size D being the largest was suitable for highly parous women.

The Dalkon Shield

The Dalkon Shield generated a lot of interest in the late 1960s and early 1970s. However, it was withdrawn from the market in 1974 because of association with a high incidence of pelvic inflammatory disease (PID). The infection was attributed to the multifilament tail of the IUD whose wicking properties facilitated the ascent of bacteria from the vagina into the uterus.

Figure 2.1.1: The Lippes Loop

Figure 2.1.2: The Dalkon Shield

The Medicated IUDs

Each device is impregnated with a pharmacologically active agent which is gradually dissolved (or eroded) when the device is placed in the uterus. Therefore, unlike the non-medicated IUDs, these devices can only be used for a limited length of time. The rate at which the pharmacologically active substance is released depends on:

- The type
- Quantity, and of the active agent.
- Surface area
- They all come in separate pre-sterilized packages.

Those containing Copper:

- Copper T (Cu-T 380A) effective for 10-12 years
- Copper T (Cu-200) effective for 3 years
- Multiload (Cu-250) effective for 3 years
- Multiload (Cu-375) effective for 8 years
- Copper 7 (Cu 7)

Those containing Copper and Silver, e.g., Nova and those containing Hormones, e.g., Mirena (levonorgestrel intra-uterine system).

Figure 2.1.3: Levonorgestrel Intra-uterine System (Mirena)

COPPER T-380A

Description

Copper T 380A Intrauterine Copper Contraceptive (ParaGard®) is a T-shaped intrauterine device (IUD), measuring 32 mm horizontally and 36 mm vertically, with a 3 mm diameter bulb at the tip of the vertical stem. A monofilament polyethylene thread is tied through the tip, resulting in two white threads, each at least 10.5 cm in length, to aid in detection and removal of the device. The T-frame is made of polyethylene with barium sulfate to aid in detecting the device under x-ray.

Figure 2.2.4: Copper T 380A

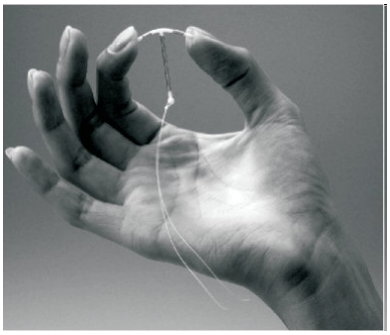
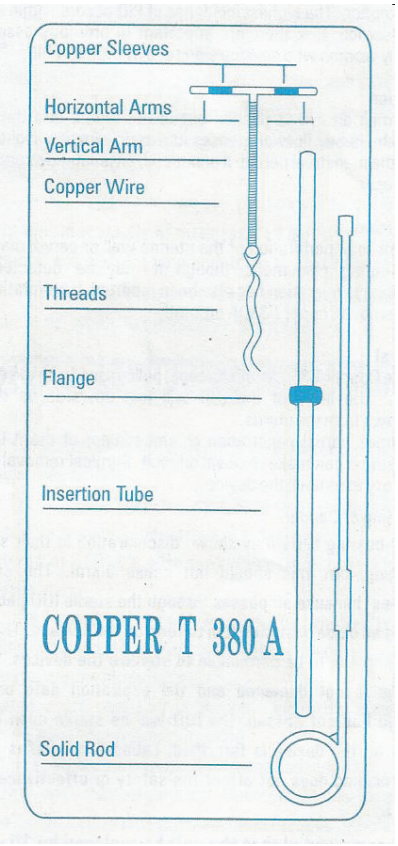


Figure 2.2.5: Presentation in the package



Cu T 380A also contains copper: approximately 176 mg of wire coiled along the verticalstem and a 68.7 mg collar on each side of the horizontal arm. The total exposed copper surface area is 380 ± 23 mm2. One unit weighs less than one (1) gram. Each Cu T 380A is packaged together with an insertion tube and solid white rod in a sterilized pouch. A moveable flange on the insertion tube aids in gauging the depth of insertion through the cervical canal and into the uterine cavity.

Mechanism of Action of Cu T 380A

The mechanism responsible remains unknown. Possible mechanism(s) by which copper enhances contraceptive efficacy include interference with sperm transport or fertilization, and prevention of implantation. The contraceptive effectiveness of Cu T 380A is enhanced by copper continuously released into the uterine cavity.

Effectiveness

Less than one pregnancy occurs per 100 women using an IUD over the first year (6–8 per 1,000 women). Over 10 years of IUD use: about two pregnancies per 100 women.

Advantages of Copper-bearing IUDs

- IUDs are highly effective and safe for a majority of women
- They are reversible
- They are independent of intercourse
- They are private
- No day-to-day action is required
- IUDs are easily available
- They have no effect on lactation
- There is no drug interaction
- May help protect from endometrial cancer
- They are long-acting (Cu-T-380A is effective for as long as 12 years)

Disadvantages of Copper-bearing IUDs

- Have common side effects (usually diminish after the first three months of use)
  - prolonged and heavy monthly bleeding
  - irregular bleeding
  - more cramps and pain during monthly bleeding
- Complications are rare, but may occur:
  - expulsion of IUD, which may lead to pregnancy
  - uterine perforation
  - PID (if inserted in woman with current gonorrhoea or chlamydia)
- IUDs do not protect against STIs/HIV/AIDS
- They require trained provider to insert and remove

The World Health Organization Medical Eligibility Criteria (MEC)

The WHO Medical Eligibility Criteria is a document that reviews the medical eligibility criteria for use of contraception, offering guidance on the safety of use of different methods for women and men with specific characteristics or known medical conditions. The recommendations are based on systematic reviews of available clinical and epidemiological research.

How to select contraceptive method using WHO Medical Eligibility Criteria (MEC)

Medical eligibility criteria for each contraceptive method, with the exception of female and male surgical sterilization, were classified using four categories:

1. A condition for which there is no restriction for the use of the contraceptive method
2. A condition where the advantages of using the method generally outweighs the theoretical or proven risks
3. A condition where the theoretical or proven risks usually outweigh the advantages of using the method.
4. A condition which represents an unacceptable health risk if the contraceptive method is used

Category	Description	When clinical judgment is available
1	No restriction to use	Use method under any circumstance
2	Benefits generally outweigh the risks	Generally use the method
3	Risks generally outweigh the benefits	Use of the method not usually recommended except where other methods are unavailable/unacceptable
4	Unacceptable health risks	Method not to be used

Recommendation for surgical sterilization are defined according to the following four categories

A (accept) = there is no medical reason to deny sterilization to a person with this condition;

C (caution) = the procedure is normally conducted in a routine setting, but with extra preparation and precaution;

D (delay) = the procedure is delayed until the condition is evaluated and/or corrected. Alternative temporary methods of contraception should be provided;

S (special) = the procedure should be undertaken in a setting with an experienced surgeon and staff, equipment needed to provide general anaesthesia and to back-up medical support. For these conditions the capacity to decide on the most appropriate procedure and anaesthesia regimen is also needed. Alternative temporary method of contraception should be provided, if referral is required or there is otherwise any delay.

How to select contraceptive method using WHO Medical Eligibility Criteria (MEC) for IUDs

Women who can use IUDs without restriction (WHO Category 1)
Women who:

- are 20 years or older
- have had children
- are within the first 48 hours postpartum
- are more than 4 weeks postpartum, regardless of breastfeeding status
- have past ectopic pregnancy
- have hypertension
- have deep vein thrombosis (DVT)
- have current or history of cardiovascular disease:
  - stroke
  - ischemic heart disease
  - multiple risk factors
- have lupus
- have headaches (migrainous and non-migrainous)
- have diabetes
- have any type of liver disease: tumour or hepatitis
- take certain drugs – anti-tuberculosis drugs e.g. (rifampicin, rifambutin), anti-convulsants (e.g. Phenytoin) or anti-retroviral agents (e.g. ritonavir)
- are obese
- have uterine fibroids (without distortion of uterine cavity)
- have cervical ectopy
- have current breast cancer
- have cervical intra epithelial neoplasm (CIN)
- have past pelvic inflammatory disease with subsequent pregnancy
- smoke irrespective of age
- had first trimester abortion (no sepsis)

Women who can generally use IUDs; some follow up may be needed (WHO category 2)
Women who:

- have menarche up to <18 years
- are nulliparous
- had second trimester abortion
- have heavy or prolonged vaginal bleeding pattern
- have endometriosis
- have severe dysmenorrhoea
- have pelvic inflammatory disease without subsequent pregnancy

- have iron-deficiency anemia
- have current STI other than gonorrhoea or chlamydia
- was diagnosed with chlamydia or gonorrhoea while already using IUD (continuation only)
- have vaginitis including Trichomonas vaginalis and bacterial vaginosis (initiation and continuation)
- have increased risk for STIs (e.g. have multiple sexual partners, but report consistent condom use, or live in the area with high prevalence of gonorrhoea and chlamydia)
- developed AIDS while using IUD and are not on antiretroviral therapy (continuation only)
- have HIV infection or have AIDS and are on antiretroviral therapy (clinically well)

Use of IUDs usually not recommended in these women (WHO Category 3)
Women who:

- are at increased individual risk of STIs, e.g. have multiple sex partners and don't use condoms consistently, or have partner with multiple sex partners (initiation only)
- are between 48 hours and 4 weeks postpartum
- have AIDS and not on ARV therapy or are not clinically well on ARV therapy (initiation only)
- have ovarian cancer (initiation only; women who are diagnosed with ovarian cancer while using IUD can continue while awaiting treatment)
- have benign gestational trophoblastic disease (GTD)

Women who should not use IUDs (WHO Category 4)
Women who:

- are pregnant
- have current PID (initiation only)
- have current STIs such as gonorrhoea and chlamydia, or purulent cervicitis (initiation only)
- have sepsis – puerperal and post-abortion
- have cervical cancer (pre-treatment)
- have endometrial cancer (initiation only; women who are diagnosed with endometrial cancer while using IUD can continue while awaiting treatment
- have unexplained vaginal bleeding (initiation only)
- have uterine fibroids with cavity distortion
- have pelvic tuberculosis

Summary
Intrauterine contraceptive devices are effective and reversible contraceptive methods that are acceptable to many women in Nigeria. Cu T380A is the current copper-bearing IUD being used in Nigeria. Most side effects and other health problems associated with the use of IUDs are not serious. Changes in the menstrual bleeding pattern, especially some increase in the amount and duration of menstrual bleeding, are the most common adverse side effects.

Evaluation
- Mention the three types of IUDs available worldwide?
- What are the advantages and disadvantages of IUDs?
- Mention the four categories of WHO Medical Eligibility Criteria (MEC) for IUDs.

Module Two - Session 2: Product Profile of Contraceptive Implants and Medical Eligibility Criteria for Implants

Time: 1 hour

Learning Objectives:

By the end of this session, participants should be able to:

- Describe the types, characteristics, effectiveness and mechanism of action of implants;
- List the advantages and disadvantages of contraceptive implants;
- Mention the special characteristics of JadelleR, Zarin, Implanon^{R} and Implanon NXT^{TM}
- Discuss the Medical Eligibility Criteria for Implant use
- Observe the insertion and removal of Jadelle^{R} ,Implanon^{R} and Implanon NXT^{TM} on video tape

Session Overview:

- Types, characteristics, effectiveness and mechanism of action of implants;
- Describe the types, characteristics, effectiveness and mechanism of action of implants;
- Advantages and disadvantages of contraceptive implants;
- Special characteristics of Jadelle^{R}, Implanon^{R} Implanon NXT^{TM} and Zarin^{R}
- Medical Eligibility Criteria for Implant use
- Video film of insertion and removal of Jadelle^{R} and Implanon^{R} and Implanon NXT^{TM}

Methods

- Lecture/Presentation
- Discussion
- Brainstorming

Materials

- Flip chart/Newsprint
- Markers
- LCD Projector and Laptop

CONTENT

Contraceptive implants are progestin-only contraceptives inserted under the skin of a woman's upper arm by a minor surgical procedure. A blood level of the progestin sufficient to prevent conception is reached within a few hours after placement of the implants and is maintained at an effective level for at least 3 to five years. The methods are reliable, convenient, effective, reversible and are hidden since they are placed under the skin, The methods are suitable for women who are seeking continuous, yet reversible contraception; who want to space their children; who cannot use methods that contain estrogen; who do not want to be sterilized; and/or who desire a method that is convenient and not related to sexual intercourse.

Types of contraceptive implants

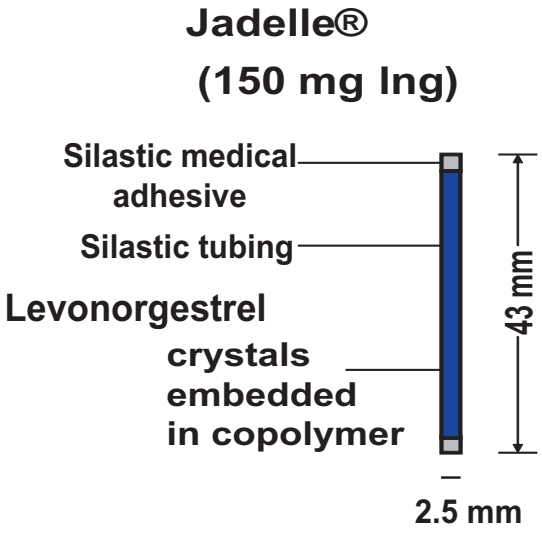
- Jadelle® — two silicon rods; each containing 75 mg levonorgestrel. It is an improved version of Norplant. Jadelle is effective for 5 years.
- Implanon® – one rod containing a progestin called etonogestrel. Implanon® is effective for 3 years.
- Implanon NXT™ – one rod containing a progestin etonogestel. It is radio opaque and effective for 3years
- Zarin® (Sinoplant or sino-implant) – two thin flexible silicon rods that contain 75 mg levonorgestrel each (similar to Jadelle). Effective for 5 years.
- Uniplant® – one rod that contains 55mg of nomegestrol acetate.
- Norplant® – six soft plastic rods that each contain 36 mg levonorgestrel. Effective for 5-7 years. Norplant has been discontinued due to the availability of newer and better implants, but there are still women using it who will be due for removal over the next few years.

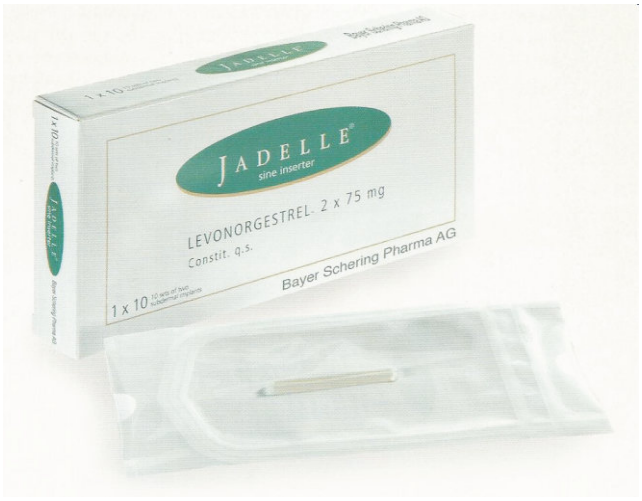
Jadelle®

Jadelle® is an implant system that provides effective, long-acting, reversible contraception for women. Two thin, flexible rods made of silicone tubing and filled with levonorgestrel, a synthetic progestin, are inserted just under the skin of a woman's upper, inner arm in a minor surgical procedure. Protection from pregnancy is provided within 24 hours, when insertion is performed during the first week of a woman's menstrual cycle. The woman rapidly returns to her normal fertility when the implants are removed. Since Jadelle® does not contain estrogen, the most common side effects are changes in menstrual bleeding patterns. Most other common side effects are similar to those experienced by women who use other hormonal contraceptives.

Composition

The outer part of the Jadelle® rod is silicone rubber tubing, similar to the material used in catheters and heart valves since the 1950s. It also is the same kind of material used in Norplant® capsules, another contraceptive implant system. The rods release levonorgestrel, a synthetic progestin that has been used in combined oral contraceptives and in progestin-only pills for more than 30 years. What is "new" about the rods is their delivery system, which can provide contraceptive protection for up to five years.





The levonorgestrel diffuses out of the silicon rubber at a constant rate every day for five years.

The Jadelle® system consists of two rods, unlike the Norplant® system that has six capsules. Because there are fewer implants, Jadelle is easier to insert and remove than Norplant. Each Jadelle rod is 43 millimeters long and 2.5 millimeters in diameter. Each rod contains 75 mg of levonorgestrel for a total of 150 mg. The levonorgestrel crystals in Jadelle capsule are packed within a rubber sheath, which is then sealed at each end. A core of mixed levonorgestrel and elastomer (a polymer having the elastic properties of natural rubber) is enclosed within the rubber sheath, which is then sealed at each end with medical adhesive.

Mechanism of Action

Pregnancy is prevented in Jadelle® users by a combination of mechanisms. The most important are the inhibition of ovulation and the thickening of the cervical mucus, making it impermeable to sperm. Other mechanisms may add to these contraceptive effects.

Effectiveness

Jadelle® is one of the most effective reversible contraceptives available. The cumulative pregnancy rate in clinical trials was 0.3 for three years and 1.1 percent for five years. Jadelle® has a lower failure rate than the pill and most IUDs. Its efficacy is comparable to that of surgical sterilization. The implant has also been approved for 5 years' use.

Zarin® (Sino-Implant II)

Sino-Implant (II), a two-rod system manufactured since 1994 by Shanghai Dahua Pharmaceutical Company Ltd., provides four years of protection against pregnancy at about 30 percent to 40 percent of the cost (based on the comparison product and volume purchased by international donors) of existing implants. The lower price will enable programs to serve more clients per dollar investment in contraceptive commodities. To date, 7 million units of Sino-Implant (II) have been distributed in China and Indonesia. Most recently, the product has been registered in Kenya and Sierra Leone under the trade name Zarin®. Currently, the method is under review by national drug regulatory authorities in many other countries.

Composition

The Zarin® contraceptive implant is as set of two flexible, cylindrical rods made of milky –white, medical grade silicone elastomer. Each rod contains 75 mg of levonorgestrel, the active ingredient, for a total of 150 mg. The rods are inserted into tubes composed of a colourless, transparent form of silicone elastomer. Both ends of each tube are sealed with adhesive

Mechanism of Action

Levonorgestrel is a synthetic hormone that mimics progesterone which is a potent inhibitor of sex hormones secreted by the pituitary gland. Like progesterone, levonorgestrel suppresses ovulation. It also thickens cervical mucus, which impedes the migration of sperm. Finally, it thins the endometrium, and this interferes with implantation of the fertilized egg.

Effectiveness

Over four years for Sino plant use: 0.3 to 1.1 pregnancies per 100 women in the first year of use.

Product profile for Implanon and Implanon NXT™

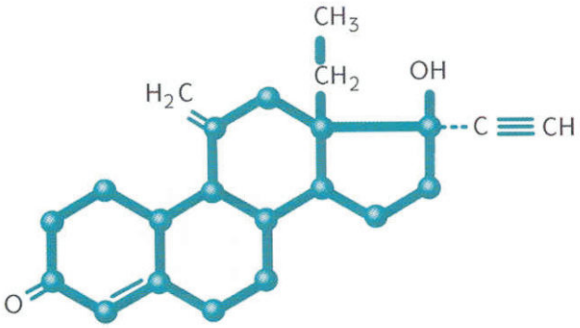
Implanon is a reversible, non-biodegradable, long-acting hormonal, subdermal contraceptive that contains etonorgestrel. It is a single-rod system with a disposable applicator. A newer version of Implanon also is available. It's called **Nexplanon**® or I**mplanon NX**T™ and it's radio opaque. This means it can be seen on X-ray, which is useful for checking the location of the implant. Implanon and Nexplanon are the only contraceptive implants with Food and Drug Administration (FDA) approval available in the U.S. Implanon NXT™ also has a preloaded, sterile applicator which is for single
use and disposable. Inserters familiar with the applicator for Implanon® need to familiarize themselves with the one for Implanon NXT™

Composition

Implanon releases 3-keto-desogestrel, which is the active metabolite of the well-known progestogen, desogestrel, developed by Organon. The molecule 3-keto-desogestrel has been given the international non-proprietary name of etonorgestrel (ENG), as shown in the figure below. Each Implanon Implanon NXT™ contains 68 mg of etonorgestrel.

Desogestrel has been used in combined oral contraceptives for many years and therefore the pharmacological effects of desogestrel, and consequently those of etonorgestrel, have been established. However, both Implanon and Implanon NXT™ continuously releases etonorgestrel and the first-pass effect is avoided, therefore the clinical pharmacology is not completely covered by former experiences with desogestrel-containing combined oral contraceptives (COCs).

Figure 2.2. : Structural Formula of Etonorgestrel



Mechanism of Action:

Etonorgestrel is the biologically active metabolite of desogestrel, a progestin widely used in oral contraceptives. It is structurally derived from 19-nortestosterone and binds with high affinity to progesterone receptors in the target organs.

The contraceptive effect of Implanon®/NXT™ implanon is primarily achieved by the inhibition of ovulation. Ovulations were not observed in the first two years of use and only rarely in the third year. Besides inhibition of ovulation, Implanon® and Implanon NXT™ also cause changes in the cervical mucus, which hinders the passage of spermatozoa. Although Implanon® inhibits ovulation, ovarian activity is not completely suppressed. Mean estradiol concentrations remain above the level seen in early follicular phase.

After the insertion of the Implanon®, etonogestrel is rapidly absorbed into the circulation. Ovulation-inhibition concentrations are reached within 1 day. Maximum serum concentrations are reached within 1 to 13 days. The release rate of the implant decreases with time.

Effectiveness

Less than one pregnancy per 100 women (1 per 1,000 women) for over three years use of Implanon. The contraceptive efficacy of Implanon® is comparable with that known for combined OCs. The high degree of protection against pregnancy is obtained among other reasons because, in contrast to OCs, the contraceptive action of Implanon of is not dependent on the regular intake of tablets.
The contraceptive effect of Implanon® is related to the plasma levels of etonogestrel, which are inversely related to the body weight, and decrease with time after insertion. The clinical experience with Implanon® in heavier women in the third year of use is limited. Therefore, it cannot be excluded that the contraceptive effects in these women during the third year of use may be lower than for women of normal weight. Clinicians may therefore consider earlier replacement of the implant in heavier women.

Advantages of Contraceptive Implants

- No repeated visits to the clinic are required
- Contraceptive implants are effective immediately if inserted within the first 7 days of menstrual cycle (5 days for Implanon)
- They are very effective in preventing pregnancy and safe for majority of women
- They are long-acting
- They may help prevent iron deficiency anemia, symptomatic pelvic inflammatory disease, and ectopic pregnancy
- Do not disturb breast milk production
- Less likely to cause headaches or raised blood pressures than oestrogen-containing contraceptives
- No increased risk of cardio-vascular complications

Disadvantages of Contraceptive Implants

- Contraceptive implants have common side effects:
  - may cause spotting and irregular vaginal bleeding for 60–70% of users
  - amenorrhea (less common than irregular bleeding with all implants, but Implanon)
  - headaches, abdominal pain, weight gain, breast tenderness, dizziness, nausea, mood change, acne
  - some women may develop enlarged ovarian follicles
- Insertion and removal involve minor surgical procedures and therefore may be associated with bruising (discolouration of the arm), infection or bleeding
- The client cannot discontinue the method on her own
- Outline of the rods may be visible under the skin of some women, especially when the skin is stretched
- Contraceptive implants do not protect a woman from STIs/HIV/AIDS

The World Health Organization Medical Eligibility Criteria (MEC)
The WHO Medical Eligibility Criteria is a document that reviews the medical eligibility criteria for use of contraception, offering guidance on the safety of use of different methods for women and men with specific characteristics or known medical conditions. The recommendations are based on systematic reviews of available clinical and epidemiological research.

How to select contraceptive method using WHO Medical Eligibility Criteria (MEC)
Medical eligibility criteria for each contraceptive method, with the exception of female and male surgical sterilization, were classified using four categories:

Category	Description	When clinical judgment is available
1	No restriction to use	Use method under any circumstance
2	Benefits generall y outweigh the risks	Generally use the method
3	Risks generally outweigh the benefits	Use of the method not usually recommended except if other methods are unavailable/unacceptable
4	Unacceptable health risks	Method not to be used

Recommendation for surgical sterilization are defined according to the following four categories
Women who can use implants without restriction (WHO Category 1)
Women who:

- are of any age and parity, including nulliparous
- obese
- have uterine fibroids
- are breastfeeding within six weeks to six months postpartum
- have puerperal and post-abortion sepsis
- have pelvic inflammatory disease (previous and present)
- have increased risk of STIs or current STIs, including gonorrhoea or chlamydia
- have HIV infection or AIDS, but are not on ARV therapy
- are smoking at any age
- have hypertension below 160/100 mmHg
- have non-migrainous headaches
- have depressive disorders
- have endometrial or ovarian cancer
- have iron-deficiency anemia or sickle cell disease
- have acute or flare hepatitis, chronic hepatitis, or carrier
- have mild (compensated cirrhosis)
- take broad-spectrum antibiotics, antifungal or antiparasitic medication

Women who can generally use implants; some follow up may be needed (WHO Category 2)
Women who have:

- drug interactions such as Rifampicin, Rifambutin, certain anti-convulsants, e.g. Phenytoin, ARVs
- cervical cancer (pre-treatment) or cervical intraepithelial neoplasia
- hypertension higher than 160/100 mm Hg
- Breastfeeding mothers less than 48hours up to six weeks

- history of DVT or current DVT while established on anticoagulant therapy
- major surgery with prolonged immobilization
- multiple risk factors for cardiovascular disease
- history or current ischaemic heart disease or stroke (for initiation only)
- migraine with aura at any age (for initiation only)
- diabetes with or without complications
- rheumatic disease, such as systemic lupus erythematosus if negative for antiphospholipid antibodies
- irregular or heavy vaginal bleeding patterns
- gall-bladder disease
- liver tumour, such as focal nodular hyperplasia

Use of implants usually not recommended in these women (WHO Category 3);
Women who:

- have unexplained vaginal bleeding
- have deep vein thrombosis (acute)
- have liver tumour other than focal nodular hyperplasia
- have severe (decompensated) cirrhosis
- are breastfeeding up to six weeks postpartum
- have rheumatic disease, such as systemic lupus erythematosus with positive or unknown antiphospholipid antibodies
- have history of breast cancer and no evidence of current disease for 5 years
- noticed their migraines with aura getting worse while using contraceptive implants
- were diagnosed with ischaemic heart disease or stroke while using implants

Women who should not use *contraceptive implants (WHO Category 4)*

- Women who have current breast cancer

Summary

Since contraceptive implants are progestin-only methods, they are suitable for a wide range of women. They make family planning possible throughout reproductive life. They may be used to postpone a first pregnancy or used to 'space' pregnancies. They may also be used to provide long-term contraception when the desired family size is reached. Since implants do not contain oestrogen, it can be used in women who do not want to or cannot use combined oral contraceptives (COCs). The contraceptive actions of implants are reversible which is apparent from the rapid return of the normal menstrual cycle after removal of the implants.

Evaluation

- Mention the three types of contraceptive implants available in Nigeria?
- What are the advantages and disadvantages of contraceptive implants?
- Mention the four categories of WHO Medical Eligibility Criteria (MEC) for contraceptive implants.

[1]Implants start to lose effectiveness sooner for heavier women (>70kg): these women may have to replace their implants earlier.

MODULE THREE

USING LEARNING GUIDES DURING MODEL AND CLINICAL PRACTICE

Module Three: Using Learning Guides during Model and Clinical Practice

Time: 1 Hour

Learning Objectives
- Discuss the terms associated with skill acquisition
- Explain the use of learning guides and checklist
- Discuss the advantages and disadvantages of competency-based skill assessment instruments
- Demonstrate the use of competency based assessment instrument
- Discuss the care of anatomic models

Session Overview
- Terms associated with skill acquisition
- Description of learning guides and checklist
- Advantages and disadvantages of competency-based skill assessment instruments
- Demonstration of the use of competency based Assessment Instrument
- Care of anatomic models

Methods
- Illustrated Lecture
- Discussion
- Group work
- Demonstration & Return Demonstration

Materials
- LCD Projector
- Laptop
- Markers and Flip Charts
- Varieties of clinical skills Learning Guides and Checklists
- Anatomic models
- ***Sample 3.1:*** *Learning Guide for IUD Insertion Techniques*
- ***Sample 3.2:*** *Learning Guide for IUD Counselling Skills*
- ***Sample 3.3:*** *Learning Guide for Implant (Jadelle^{R} and Zarin^{R} Insertion Techniques*
- ***Sample 3.4:*** *Learning Guide for Implant (Implanon^{R}) Insertion Techniques*
- ***Sample 3.5****:* *Learning Guide for Implant (Implanon NXT™)Insertion Techniques*
- ***Sample 3.6:*** *Learning Guide for Implant Removal Skills (All Implants)*

CONTENT

Introduction

In the past, deciding whether a participant was competent (qualified) to perform a skill or activity during and, most important, after clinical training was often extremely difficult. This was due, in part, to the fact that competency was tied to the completion of a specified number of supervised procedures or activities. Unfortunately, unless participant performance is objectively measured relative to a predetermined standard, it is difficult to determine competency.

Competency-based skill assessments (learning guides and checklists), which measure clinical skills or other observable behaviours relative to a predetermined standard, have made this task much easier. While learning guides are used to facilitate learning the steps or tasks (and sequence, if necessary) in performing a particular skill or activity, checklist are used to evaluate performance of the skill or activity objectively.

Terms Associated with Skill Acquisition

Use of competency-based skill assessment instruments involves two terms:

Psychomotor domain. The domain or area of learning that often involves performing skills which typically require the manipulation of instruments and equipment (e.g. inserting an IUD)

Competency-based skill assessment. An instrument used to objectively measure clinical (psychomotor) skills or other observable behaviours (e.g. counselling).

Psychomotor Skills (Levels of Performance)

The psychomotor or skill area involves tasks such as:

- Counselling a client
- Inserting contraceptive implants
- Inserting a Copper T 380A IUD
- Putting on sterile gloves

Progress in the skill area is measured with reference to various levels or stages of performance. The three levels of performance in acquiring a new skill are:

Skill Acquisition

This represents the **initial phase** in learning a new clinical skill or activity. One or more practice sessions are needed for learning how to perform the required steps and the sequence (if necessary) in which they should be performed. Assistance and coaching are necessary to achieve correct performance of the skill or activity.

Skill Competency

This represents an **intermediate phase** in learning a new clinical skill or activity. The participant can perform the required steps in the proper sequence (if necessary) but may not progress from step to step efficiently.

Skill proficiency

This represents the **final phase** in learning a new clinical skill or activity. The participant efficiently and precisely performs the steps in the proper sequence (if necessary).

Advantages of competency-based skill assessment instruments

The single greatest advantage of a competency-based assessment is that it can be used to facilitate learning a wide variety of skills or activities and measure participant behaviour in a **realistic job-related situation.** Competency-based assessment instruments such as learning guides:

- Focus on a skill that the participant typically would be expected to perform on the job, and
- Break down the skill or activity into the essential steps required to complete the procedure.
- Using competency-based clinical training:
  - Ensures that training is based on a standardized procedure
  - Standardizes training materials and audiovisual aids
  - Forms the basis of classroom or clinical demonstrations as well as participant practice sessions.

Limitations of competency-based skill assessment instruments

- It will take time and energy first to develop the instruments/tools and then to apply them to each participant.
- An assessment can be applied only by a clinical trainer who is proficient in the clinical procedure or activity being learned.
- An adequate number of skilled clinical trainers must be available to conduct the training because competency-based clinical training usually requires a one-on-one relationship.

Using the Learning Guides

A learning guide contains the individual steps or tasks in sequence (if necessary) required to perform a skill or activity in a standardized way. Learning guides are designed to help the participant learn the correct steps and sequence in which they should be performed **(skill acquisition)**, and measure progressive learning in small steps as the participant gains confidence and skill **(skill competency).**

Learning guides can be used as a self or peer assessment tool. Examples of how learning guides can be used at different stages of the course are given below.

- Initially, participants can use the learning guides to follow the steps as the clinical trainer role-plays counselling a client or demonstrates a clinical procedure using anatomic models.
- Subsequently, during the classroom sessions in which participants are paired, one “service provider” participant performs the procedure while the other participant uses the learning guide to prompt the “service provider” on each step. During these session, the clinical trainer(s) can circulate from group to group to monitor how learning is progressing and check to see that the participants are following the steps outlined in the learning guide.
- After participants become confident in performing the skill or activity (e.g. inserting an IUD in the pelvic model), they can use the learning guide to rate each other's performance. This exercise can serve as a point of discussion during a clinical conference before participants provide services to clients

- Before the first clinic session, participants again are paired. Here, one "service provider" participant performs the procedure while the other observes and uses the learning guide to remind the "service provider" of any missed steps. During this session, the clinical trainer circulates, coaching the participants as necessary as they perform the procedure.

The participant is not expected to perform all the steps or tasks correctly the first time s/he practices them. Instead the learning guides are intended to:

- Assist the participant in learning the correct steps and sequence in which they should be performed (skill acquisition)
- Measure progressive learning in small steps as the participant gains confidence and skill (skill competency).

Prior to using the Learning Guide for any clinical skills, the entire process of the activity will be reviewed with the participants by the trainer. The participants also observe the activity performed in the clinic with a client. Thus, by the time the group breaks up into pairs to begin practicing and rating each other's performance, each participant should be familiar with the processes for the clinical skill.

Used consistently, the learning guides enables each participant to chart her/his progress and to identify areas for improvement. For example, before the participant attempts the skill or activity (e.g. IUD insertion) for the first time, the trainer should briefly review the steps involved and discuss the expected outcome. In addition, immediately after the skill or activity has been completed the trainer should meet with the participant. The purpose of this meeting is to provide positive feedback regarding learning progress and to define the areas (knowledge, attitude or practice) where improvement is needed in subsequent practice sessions. Because the learning guides are used to assist in developing skills, it is important that the rating (scoring) be done carefully and as objectively as possible.

Using Checklists

The checklist generally is derived from a learning guide. Unlike learning guides, which are by necessity quite detailed, competency-based checklists should contain only sufficient detail to permit the clinical trainer to evaluate and record the overall performance of the skill or activity. If a checklist is too detailed, it can distract the clinical trainer from the primary purpose, which is to observe the overall performance of the participant objectively. Using checklists in competency-based clinical training:

- Ensures that participants have mastered the clinical skills and activities, first with models and then with clients
- Ensures that all participants will have their skills measured according to the same standard
- Forms the basis for follow up observations and evaluations

Sample Learning Guides

The samples being introduced in this Module are:

Sample 3.1: *Learning Guide for IUD Insertion and Removal Techniques*
Sample 3.2: *Learning Guide for IUD Counselling Skills*
Sample 3.3: *Learning Guide for Implant (Jadelle^{R} and Zarin^{R} Insertion Techniques*
Sample 3.4: *Learning Guide for Implant (Implanon^{R}) Insertion Techniques*

Sample 3.5: *Learning Guide for Implant (Implanon NXT™) Insertion Techniques*
Sample 3.6: *Learning Guide for Implant Removal Skills (All Implants)*

Summary
Providing participants with good counselling and clinical skills is one of the central purposes of most family planning training courses. Each participant is expected to acquire the knowledge, attitudinal concepts and skills defined in the training course objectives. This is accomplished through the use of knowledge and skill assessments.
Being able to measure learning progress satisfactorily and evaluate performance objectively are extremely important elements in the process of improving the quality of clinical training. The use of well-designed, competency-based knowledge and skill assessment instruments can make mastering these skills easier.
Learning guides enable participants to chart their progress in learning new skills and by breaking the skill or activity down into its essential elements, to pinpoint areas for improvement. Finally, evaluating whether participants have acquired new skills can be accomplished using competency-based (performance) checklists. These checklists can be used to measure a wide variety of participant skills and behaviours in realistic job-related situations.

Evaluation

- What are the terms associated with learning?
- What is a competency-based training?

State three advantages of using the learning guide during training.

- **SAMPLE LEARNING GUIDES**

Sample 3.1: Learning Guide for IUD Insertion and Removal Techniques

LEARNING GUIDE FOR IUD CLINICAL SKILLS

(To be used by Participants)

Rate the performance of each step or task observed using the following rating scale:

> **Needs Improvement**: Step or task not performed correctly or out of sequence (if necessary) or is omitted
>
> **Competently performed:** Step or task performed correctly in proper sequence (if necessary) but participant does not progress from step to step efficiently
>
> **Proficiently performed:** Step or task efficiently and precisely performed in the proper sequence (if necessary)

LEARNING GUIDE FOR IUD CLINICAL SKILLS						
STEP/TASK		**CASES**				
CLIENT ASSESSMENT						
1.	Greets client respectfully and with kindness					
2.	Determines that client has been counseled for insertion procedure					
3.	Takes a reproductive health history. Asks for and record the following information to determine if the IUD is an appropriate choice for the client: Date of la st menstrual period, menstrual interval (days) and bleeding pattern History of ectopic pregnancy Severe dysmenorrhea (painful periods) Severe anemia (Hb < 9g/dl or HCT < 27) Recent history of sexually transmitted genital tract infections (GTIs), PID (in last 3 months) or other STDs (HBV/HIV/AIDS) Multiple sexual partners (either partner) Known or suspected cancer of genital tract					
General Physical Examination						
4.	Informs the client that s/he wants to examine her generally					
5.	Checks for pallor and jaundice					
6.	Examines the neck for any swelling					
7.	Examines the breasts for lumps, nipple discharge					
Abdominal Examination						
8.	Checks that client has recently emptied her bladder and washed and rinsed her genital area if necessary					
9.	Tells client what is going to be done and encourages her to ask question					
10.	Helps client onto examination table					
11.	Washes hands thoroughly with soap and water and dries with clean, dry cloth or air dry					
12.	Palpates abdomen and checks for lower abdominal, especially suprapubic tenderness and masses or other abnormalities					

Pelvic Examination						
13.	Drapes the woman appropriately for pelvic examination					
14.	Provides adequate light to see cervix					
15.	Opens high-level disinfe cted instrument pan or sterile pack without touching instruments					
16.	Puts new examination or high -level disinfected surgical gloves on both hands.					
17.	Arranges instruments and supplies on high -level disinfected or sterile tray.					
18.	Inspects external genitalia and urethral opening					
19.	Palpates Skene's and Bartholin's glands for tenderness or discharge					
20.	Swabs the vulva					
21.	Performs bimanual exam: Determine if there is cervical motion tenderness Determine size, shape and position of uterus Rule out pregnancy or any uterine abnormality Check for enlargement or tenderness of adnexa					
22.	Performs rectovaginal exam only if: Position or size of uterus is questionable Possible mass behind the uterus					
23.	If performing rectovaginal exam, keep s gloves on and go es to steps 21a & 21b					
24.	If not performing rectovaginal exam, immerses both gloved hands in 0.5% chlorine solution. Removes gloves by turning inside out If disposing of gloves, place s in leak proof container or plastic bag					
25.	After completing rectovaginal exam, immerse s both gloved hands in 0.5% chlorine solution, removes gloves by turning inside out and disposes of gloves in leak proof container or plastic bag.					
26.	Puts on another pair of examination gloves					
27.	Inserts vaginal speculum					
28.	Performs speculum exam: Checks for vaginal lesions or discharge Inspects cervix Obtains vaginal and cervical and/or urethral specimens for microscopic examination if indicated (and testing is available)					
Microscopic Examination (if indicated and available)						
29.	Test s specimen with pH tape					
30.	Prepares saline and KOH wet mounts					
31.	Identifies: Vaginal epithelial cells Trichomoniasis (if present) Moniliasis (if present) Clue cells (if present)					
32.	Prepares Gram's stain (if indicated and available) and identifies: WBC (polymorphonuclear white cells) Gram-negative intracellular diplococci (GNID) (if present)					
33.	If microscopic exam done, washes hands thoroughly with soap and water and dries with clean, dry cloth or air-dry.					
INSERTION						
Pre-Insertion Tasks						
1.	Tell s client what is going to be done and encourages her to ask questions					

Insertion Tasks						
2.	Puts new examination or high-level disinfected surgical gloves on both hands					
3.	Applies antiseptic solution two times to the cervix, especially the os, and vagina					
4.	Gently grasps cervix with tenaculum/stopes forceps					
5.	While gently pulling on the tenaculum/stopes forceps and without touching side walls of vagina or speculum blades, gently passes sound through cervix to the fundus of the uterus					
6.	Confirms whether the position of the uterus is anterior or posterior. Removes sound					
7.	Determines depth of uterine cavity					
8.	Loads Copper T380A in sterile package: Partially opens package and bend back white backing flaps Puts white rod inside inserter tube Places package on flat surface Slides I.D card underneath arms of the IUD Holds tips of IUD arms and pushes on the inserter tube to start bending arms When arms touch sides of inserter tube, pull s tube away from the folded arms of IUD Elevates inserter tube and push es and rotate to catch tips of arms in tube. Pushes folded arms into inserter tube to keep them fixed in the tube					
9.	Sets depth gauge to measure uterine depth with IUD still in sterile package, then completely open package					
10.	Checks to be sure the folded arms and the depth gauge are lying flat against the card					
11.	Removes loaded inserter tube without touching anything that is not sterile; is careful not to push the white rod toward IUD					
12.	Holds blue depth gauge in horizontal position. While gently pulling on tenaculum/stopes forceps , pass es loaded inserter tube through the cervix until depth gauge touches cervix or resistance is felt.					
13.	Holds tenaculum/stopes forceps and white rod stationary in one hand					
14.	Releases arms of Copper T380A IUD using withdrawal technique (pull s inserter tube toward him/her until it touches thumb grip of white rod).					
15.	Removes white rod and carefully pushes in on the inserter tube until slight resistance is felt (to ensure device is in place)					
16.	Partially withdraws the inserter tube and cut s IUD strings to 3-4cm length					
17.	Removes inserter tube					
18.	If cutting is not performed, tuck s the strings around the cervix in the fornices					
19.	Gently remove s the tenaculum/stopes forceps and place s in 0.5% chlorine solution for 10minutes for decontamination					
20.	Examines cervix and if there is bleeding at the tenaculum/stopes forceps puncture site(s), places cotton (or gauze) swab over bleeding and appl ies gentle pressure for 30-60 seconds.					
21.	Gently removes speculum and places in 0.5% chlorine solution for 10minutes for decontamination					

POST INSERTION TASKS						
22.	Before removing gloves, places all instruments in 0.5% chlorine solution for 10minutes for decontamination					
23	Disposes of waste materials such as cotton balls or gauze by placing in a leak proof container or plastic bag.					
24.	Immerses both gloved hands in 0.5% chlorine solution. Removes gloves by turning inside out, places in leak proof container or plastic bag					
25.	Washes hands thoroughly with soap and water and dries with clean, dry cloth or air-dry					
26.	Checks to be sure client is not having excessive cramping and answers any questions					
27.	Teaches client how and when to check for strings – fortnightly and especially after menses					
28.	Discusses what to do if client experiences any side effect s or problems					
29.	Provides follow-up visit instructions (the first follow -up visit is 1 month), and answers any questions					
30.	Reminds the client that IUD does not protect against HIV/STIs					
31.	Assures client that she can have the IUD removed at any time					
32.	Observes client for at least 15 to 20 minutes before sending her home					
33.	Completes IUD card and record in client record					
REMOVAL OF THE COPPER T380A IUD						
1.	Greets client respectfully and with kindness					
2.	Checks to be sure client has emptied her bladder and washed and rinsed her genital area if necessary					
3.	Tells the client what is going to be done and encourages her to ask questions					
4.	Helps client onto examination table					
5.	Washes hands thoroughly with soap and water and dr ies with clean, dry cloth or air-dry					
6.	Puts new examination or high -level disinfected surgical gloves on both hands					
7.	Performs bimanual exam: Determine if there is cervical motion tenderness Determine size, shape and position of uterus Palpate adnexa for abnormalities or enlargements					
8.	Inserts vaginal speculum to see cervix and IUD strings					
9.	Applies antiseptic solution two times to the cervix, especially the os, and vagina					
10.	Grasps strings clos e to the cervix with heamostat or other narrow forceps, or long artery forceps, or sponge holding forceps.					
11.	Pulls on strings slowly but firmly to remove IUD					
12.	Shows IUD to client					
13.	Immerses IUD in 0.5% chlorine solution and disposes of in a leak proof container or plastic bag					
14.	Gently removes speculum and places in 0.5% chlorine solution for 10minutes for decontamination					
POST REMOVAL TASKS						
15.	Before removing gloves, places all instruments in 0.5% chlorine solution for 10 minutes for decontamination					
16.	Disposes of waste materials by placing in leak proof container or plastic bag					
17.	Immerses both gloved hands in 0.5% chlorine solution. Removes gloves by turning inside out, places in leak proof container or plastic bag					
18.	Washes hands thoroughly with soap and water and dr ies with clean, dry cloth or air dry					
19.	Record IUD removal in client record					

Sample 3.2: Learning Guide for IUD Counselling Skills

LEARNING GUIDE FOR IUD COUNSELLING SKILLS
(To be used by **Participants)**

Rate the performance of each step or task observed using the following rating scale:

Needs Improvement: Step or task not performed correctly or out of sequence (if necessary) or is omitted

Competently performed: Step or task performed correctly in proper sequence (if necessary) but participant does not progress from step to step efficiently

Proficiently performed: Step or task efficiently and precisely performed in the proper sequence (if necessary)

	LEARNING GUIDE FOR IUD COUNSELLING SKILLS					
	STEP/TASK	**CASES**				
COUNSELLING (INSERTION)						
Initial Interview (Client Reception Area)						
1.	Greets client respectfully and with kindness					
2.	Establishes purpose of the visit and answers questions					
3.	Provides general information about family planning					
	Gives the woman information about the contraceptive choices available and the benefits and limitations of each: Shows where and how the method is used Explains how the method works and its effectiveness Explains possible side effects and other health problems Explains the most common side effects					
5.	Explains what to expect during the clinic visit					
	Method-Specific Counselling (Counselling Area)					
6.	Assures necessary privacy					
7.	Obtains biographic information (name, address, etc)					
8.	Asks the client about her reproductive goals (Does she want to space or limit births?) and need for protection against GTIs and other STDs					
9.	Explores any attitudes or religious beliefs that either favor or rule out one or more methods					
10.	Discusses the client's needs, concerns and fears in a thorough and sympathetic manner					
11.	Helps the client begin to choose an appropriate method					
Client chooses an IUD						
12.	Screens the client carefully to make sure there is no medical condition that would be a problem (compare client screening checklist)					
13.	Explains potential side effects and makes sure that each is fully understood					
Pre-Insertion Counselling (Examination/Procedure Area)						
14.	Reviews Client Screening Checklist to determine if the IUD is an appropriate choice for the client and if she has any problems that should be monitored while the IUD is in place					
15.	Informs client about required physical and pelvic examination					
16.	Checks that client's within 7 days of onset of menstrual period					

17.	Checks for pregnancy if beyond day 7 (Non-medical counselors should refer client for further evaluation)					
18.	Describes the insertion procedure and what she should expect during the insertion and afterward					
Post-insertion Counselling						
19.	Teaches client how and when to check for strings					
20.	Discusses what to do if the client experiences any side effects or problems					
21.	Provides follow up visit instructions					
22.	Reminds client of 12-year effective life of the Copper T 380A IUD					
23.	Assures client she can return to the same clinic at any time to receive advice or medical attention and, if desired, to have the IUD removed					
24.	Asks the client to repeat instructions					
25.	Answers client questions					
26.	Observes client for at least 15 to 20 minutes ask how she feels before sending her home.					

COUNSELLING (REMOVAL)						
Pre-removal Counselling (Client Reception Areas)						
	STEP/TASK	**CASES**				
1.	Greets client respectfully and with kindness	1	2	3	4	5
2.	Establishes purpose of visit and answer any questions					
Method-Specific Counselling (Counselling Areas)						
3.	Asks client her reason for removal and answer any questions					
4.	Asks client about her reproductive goals (Does she want to continue spacing or limiting birth?) and need for protection against GTIs and other STIs					
5.	Describes the removal procedure and what she should expect during the removal and afterward					
Post-removal Counselling						
6.	Discusses what to do if the client experiences any problems (e.g. prolonged bleeding or abdominal or pelvic pain)					
7.	Asks client to repeat instructions					
8.	Answers any questions					
9.	If client wants to continue spacing or limiting births using another method, reviews general and method-specific information about family planning methods					
10.	Helps client obtain new contraceptive method or provide temporary (barrier) method until method of choice can be started.					
11.	Observes client for at least 15 to 20 minutes and ask how she feels before sending her home.					

Sample 3.3: Learning Guide for Implant (Jadelle[R] and Zarin[R] Insertion Techniques

LEARNING GUIDE FOR JADELLE[R] AND ZARIN[R] CLINICAL SKILLS

(To be used by **Participants)**

Rate the performance of each step or task observed using the following rating scale:

Needs Improvement: Step or task not performed correctly or out of sequence (if necessary) or is omitted

Competently performed: Step or task performed correctly in proper sequence (if necessary) but participant does not progress from step to step efficiently

Proficiently performed: Step or task efficiently and precisely performed in the proper sequence (if necessary)

	Task/Activity	Number of Cases				
PRE-INSERTION COUNSELLING		**1**	**2**	**3**	**4**	**5**
1.	Greets woman respectfully and with kindness					
2.	Asks woman about her reproductive goals					
3.	If Jadelle[R] (or Zarin[R]) Counselling has not been done, arranges for counselling prior to performing the procedure					
4.	Determines that the woman's contraceptive choice is Jadelle[R] (or Zarin[R])					
5.	Review s Client Screening Checklist to determine if the woman is an appropriate candidate for Jadelle[R] (or Zarin[R])					
6.	Performs (or refers for) further evaluation, if indicated					
7.	Assesses woman's knowledge about Jadelle[R]'s (or Zarin[R]'s) major side effects					
8.	Responds to client 's needs and concerns about Jadelle[R] (or Zarin[R])					
9.	Describes insertion process and what to expect					
INSERTION OF JADELLE[R] (OR ZARIN[R]) CAPSULES						
10.	Ensures that client has thoroughly washed her arm with soap and water					
11.	Selects and positions woman's arm correctly					
12.	Determines the correct area on arm for insertion					
13.	Determines that required sterile or high level disinfected (HLD) instruments and the 2 Jadelle[R] (or Zarin[R])capsules are present					
	PRE-INSERTION TASKS	1	2	3	4	5
14.	Washes hands with soap and water					
15.	Puts on sterile or HLD gloves					
16.	Correctly prepares insertion site with antiseptic solution					
17.	Places sterile or HLD drape over arm					
18.	Injects local anaesthesia just under skin; raises a small wheal					
19.	Advances needle to its hub and inject about 1 ml of local anaesthetic in each of 2 subdermal tracks (check for anaesthetic effect)					

INSERTING JADELLE^{R} (OR ZARIN^{R}) CAPSULES						
20.	Inserts trocar directly subdermally at an angle of 45^{0}					
21.	While tenting the skin, advances trocar and plunger to mark (1) near hub of trocar					
22.	Removes plunger and load the first capsule into trocar (with gloved hand or forceps)					
23.	Reinserts plunger and advance it until resistance is felt.					
24.	Holds plunger firmly in place with one hand and slides trocar out of incision until it reaches plunger handle					
25.	Withdraws trocar and plunger together until mark (2) near trocar tip just clears the insertion wound (does not remove trocar from skin)					
26.	With finger holding previously-placed capsule, guides insertion of trocar and plunger to mark (1)					
27.	Withdraw s trocar only after insertion of second capsule					
28.	Palpates capsule to check that the two capsules have been inserted in a fan distribution (20^{0} apart)					
29.	Palpates puncture site to check that two capsules are well clear of puncture site.					
POST-INSERTION TASKS		**1**	**2**	**3**	**4**	**5**
30.	Closes the puncture wound with gauze, band aid or plaster after applying slight iodine solution to the gauze dressing					
31.	Applies pressure dressing snugly					
32.	Properly disposes of waste materials					
33.	Removes reusable gloves correctly and immerse them in chlorine solution					
34.	Washes hands with soap and water					
POST-INSERTION COUNSELLING						
35.	Draws the location of capsules in clients record and notes anything unusual					
36.	Instructs the client regarding wound care and return visit					
37.	Assures the client that she can have capsules removed at any time if she desired					

Sample 3.4: Learning Guide for Implant (Implanon^{R}) Insertion Techniques

LEARNING GUIDE FOR IMPLANT (IMPLANON^{R}) INSERTION TECHNIQUES

Rate the performance of each step or task observed using the following rating scale:

> **Needs Improvement:** Step or task not performed correctly or out of sequence (if necessary) or is omitted
>
> **Competently performed:** Step or task performed correctly in proper sequence (if necessary) but participant does not progress from step to step efficiently
>
> **Proficiently performed:** Step or task efficiently and precisely performed in the proper sequence (if necessary)

	Task/Activity	Number of Cases				
PRE-INSERTION COUNSELLING		**1**	**2**	**3**	**4**	**5**
1.	Greets the client respectfully and with kindness					
2.	Asks the client about her reproductive goals					
3.	If Implanon^{R} Counselling not done, arranges for counselling prior to performing procedure					
4.	Determines that the client's contraceptive choice is Implanon^{R}					
5.	Reviews the Client Screening Checklist to determine if she is an appropriate candidate for Implanon^{R}					
6.	Performs (or refers for) further evaluation, if indicated					
7.	Assesses the client's knowledge about Implanon^{R} major side effects					
8.	Responds to the client's needs and concerns about Implanon^{R}					
9.	Describes the insertion procedure and what to expect					
	GETTING READY					
10.	Checks to be sure client has thoroughly washed her arm with soap and water					
11.	Selects and positions woman's arm correctly					
12.	Marks correct area on arm for insertion					
13.	Determines that required sterile or high level disinfected (HLD) instruments and Implanon^{R} applicator					
PRE-INSERTION TASKS						
	Tasks/Activity	**1**	**2**	**3**	**4**	**5**
5.	Washes hands with soap and water					
6.	Puts on sterile or HLD gloves					
7.	Correctly cleans the removal site with antiseptic solution					
8.	Places sterile or HLD drape over arm					
9.	Injects local anaesthesia just under skin; raises a small wheal					
10.	Advances needle to its hub injects about 2 ml of local anaesthetic along insertion or removal					

INSERTING IMPLANON CAPSULES						
11.	Stretches skin at insertion site with thumb and index finger and inserts tip of needle angled at 20°					
12.	Advances needle to its full length while lifting the skin					
13.	Breaks the seal of applicator and turns the obturator to 90°					
14.	Fixes the obturator with one hand against the arm and retracts the cannula out of arm					
15.	Checks the needle for absence of the Implant					
16.	Palpates to verify presence of implant					
POST-INSERTION TASKS						
17.	Applies sterile gauze with a pressure bandage					
18.	Fills out user card and hands it to client					
19.	Draws position of implant in client record					
20.	Drops applicator in sharps disposal container					
	POST-INSERTION COUNSELLING					
21.	Instructs client regarding wound care and return visit					
22.	Assures client that she can have the capsule removed at any time if she desires					
23.	Observes client for at least 5 minutes before sending home					

Sample 3.5: Learning Guide for Implant (IMPLANON NXT™) Insertion Techniques

LEARNING GUIDE FOR IMPLANT (IMPLANON NXT™) INSERTION TECHNIQUES

Rate the performance of each step or task observed using the following rating scale:

Needs Improvement: Step or task not performed correctly or out of sequence (if necessary) or is omitted

Competently performed: Step or task performed correctly in proper sequence (if necessary) but participant does not progress from step to step efficiently

Proficiently performed: Step or task efficiently and precisely performed in the proper sequence (if necessary)

Task/Activity		Number of Cases				
PRE-INSERTION COUNSELLING		**1**	**2**	**3**	**4**	**5**
1.	Greets the client respectfully and with kindness					
2.	Asks the client about her reproductive goals					
3.	If Implanon NXT™ Counselling not done, arranges for counselling prior to performing procedure					
4.	Determines that the client's contraceptive choice is Implanon NXT™					
5.	Reviews the Client Screening Checklist to determine if she is an appropriate candidate for Implanon NXT™					
6.	Performs (or refers for) further evaluation, if indicated					
7.	Assesses the client's knowledge about Implanon NXT™ major side effects					
8.	Responds to the client 's needs and concerns about Implanon NXT™					
9.	Describes the insertion procedure and what to expect					
	GETTING READY					
10.	Checks to be sure client has thoroughly washed her arm with soap and water					
11.	Selects and positions woman's arm correctly					
12.	Marks correct area on arm for insertion					
13.	Determines that required sterile or high level disinfected (HLD) instruments and Implanon NXT™ applicator					
PRE-INSERTION TASKS						
	Tasks/Activity	**1**	**2**	**3**	**4**	**5**
5.	Washes hands with soap and water					
6.	Puts on sterile gloves					
7.	Correctly cleans the removal site with antiseptic solution					
8.	Places sterile drape over arm					
9.	Injects local anaesthesia just under skin; raises a small wheal					
10.	Advances needle to its hub injects about 2 ml of local anaesthetic along insertion or removal					

INSERTING IMPLANON NXT™ CAPSULE						
11	Remove the sterile preloaded disposable applicator for IMPLANON NXT™ carrying the implant from its blister.					
12	Hold the applicator just above the needle at the textured surface area and remove the transparent protection cap from the needle which contains the implant.					
13	If the cap does not come off easily, the applicator should not be used. You may see the white-colored implant by looking into the tip of the needle					
14.	With free hand, stretch the skin around the insertion site with thumb and index finger. Puncture the skin with the tip of the needle angled about 30°.					
15	Lower the applicator to a horizontal position. While lifting the skin with the tip of the needle, slides the needle to its full length. You may feel slight resistance but do not exert excessive force.					
16	While keeping the applicator in the same position and the needle inserted to its full length, unlock the purple slider by pushing it slightly down. Move the slider fully back until it stops, leaving the implant now in its final subdermal position and locking the needle inside the body of the applicator.					
17	Verify the presence of the implant in the woman's arm immediately after insertion by palpation. By palpating both ends of the implant, you should be able to confirm the presence of the 4 cm rod					
18	Apply a small adhesive bandage over the insertion site.					
19.	Request that the woman palpate the implant.					
20.	Palpate to verify presence of implant					
POST-INSERTION TASKS						
21	Apply sterile gauze with a pressure bandage					
22	Fill out user card and hand it to client					
23	Draw position of implant in client record					
24	Drop applicator in sharps disposal container					
	POST-INSERTION COUNSELLING					
25.	Instruct client regarding wound care and return visit					
26.	Assure client that she can have the capsule removed at any time if she desires					
27.	Observe client for at least 5 minutes before sending home					

Sample 3.6: Learning Guide for Implant Removal Skills

LEARNING GUIDE FOR IMPLANT REMOVAL TECHNIQUES (ALL IMPLANTS)

Rate the performance of each step or task observed using the following rating scale:

> **Needs Improvement:** Step or task not performed correctly or out of sequence (if necessary) or is omitted
>
> **Competently performed:** Step or task performed correctly in proper sequence (if necessary) but participant does not progress from step to step efficiently
>
> **Proficiently performed:** Step or task efficiently and precisely performed in the proper sequence (if necessary)

	Task/Activity	Number of Cases				
PRE-REMOVAL COUNSELLING		**1**	**2**	**3**	**4**	**5**
1.	Greet woman respectfully and with kindness					
2.	Ask client her reasons for removal and answer any questions					
3.	Review client's present reproductive goals					
4.	Describe the removal procedure and what to expect					
REMOVAL OF IMPLANT CAPSULES						
GETTING READY						
1.	Check to be sure client has thoroughly washed her arm with soap and water					
2.	Position the client's arm correctly and palpate the capsules to determine point for removal incision					
3.	Determine that the required sterile or HLD instruments and supplies are present					
PRE-REMOVAL TASKS						
4.	Wash hands with soap and water					
5.	Put on sterile or HLD gloves					
6.	Correctly clean removal site with antiseptic solution					
7.	Place sterile or HLD drape over arm					
8.	Inject small amount of anaesthetic at the incision site and under the end of the capsules (checks for anaesthetic effect)					

REMOVAL IMPLANT CAPSULES (STANDARD METHOD)						
	Tasks/Activity	**1**	**2**	**3**	**4**	**5**
9.	Make a small (3 - 4 mm) incision with scalpel at tip of capsules					
10.	Locate easiest capsules to remove and gently push it towards the incision until the tip is visible					
11.	Grasp end of capsule with small forceps					
12.	If necessary, open fibrous sheath with scalpel and remove capsules					
13.	Inject more anaesthetic if required					

DIFFICULT REMOVALS						
14.	If capsules are not close to incision, grasp distant capsule with tips of curved forceps and properly rotate (flips and/or twists) forceps to expose capsules					
15.	Clean fibrous sheaths from implant with scalpel blade, gauze or forceps tip					
16.	Grasp exposed capsule with second forceps and removes it					

REMOVING CAPSULES (POP-OUT METHOD)						
	Tasks/Activity	1	**2**	**3**	**4**	**5**
17.	Push on proximal end of capsules (nearest the shoulder) to cause distal tip (nearest the elbow) to protrude (push up skin)					
18	Open fibrous sheaths over tip with scalpel if needed					
19.	Gently squeeze tip into the incision and ''pops out'' capsule through the incision.					
20.	After removal of all the capsules, count again to be sure six complete capsules have been rem oved and show them to the client					

REMOVING CAPSULES ("U" TECHNIQUE METHOD)		CASES				
	Tasks/Activity	1	**2**	**3**	**4**	**5**
21.	Make a vertical 4 mm incision about 5 mm from the disposal end of the rods between the two implant (or one in case of Implanon^{R}) capsules					
22.	Insert the implant holding forceps through the incision					
23.	Stabilize the closest rod with index finger					
24.	Grasp the rod and pulls towards incision					
25.	Clean off fibrous sheath with gauze or scalpel					
26.	Remove the rod with Crile/Mosquito forceps					
POST-REMOVALS TASKS						
	Tasks/Activity	**1**	**2**	**3**	**4**	**5**
27.	Bring the edges of incision together and place a gauze slightly soaked with iodide on top of it					
28.	Close it with a butterfly bandage, band aid or surgical tape					
29.	Place all instruments in chlorine solution for decontamination					
30.	Properly dispose of wastes materials					
31.	Wash hands with soap and water					
POST-REMOVALS COUNSELLING						
	Tasks/Activity	**1**	**2**	**3**	**4**	**5**
32.	Instruct the client regarding wound care and return visit					
33.	Discuss what to do if any problems					
34.	Counsel the client regarding new contraceptive method, if desired					
35.	Assist the client in obtaining new contraceptive method or provide temporary (barrier) method until method of choice can be started					
36.	Observe client for at least five minutes before sending home					

MODULE FOUR

INSERTION AND REMOVAL TECHNIQUES FOR IUD AND IMPLANTS

Session 1: CuT 380A Insertion Techniques

Session 2: Jadelle and Zarin Implants Insertion Techniques

Session 3: Implanon Insertion Technique

Session 4: IUD Removal Techniques

Session 5: Implant Removal Techniques

Module Four - Session 1: IUD Insertion Techniques

Time: 1 hour

Learning Objectives

By the end of this session, participants should be able to:
- Identify the equipment and materials for IUD insertion procedures
- List timing of insertion with regard to menstruation, postpartum, post abortion and lactation periods
- Demonstrate the correct steps in the IUD insertion procedure and explain the rationale for each step.
- Demonstrate loading of the IUD in the package.
- Explain the instructions to be given to clients after insertion.
- Schedule follow-up appointments with the clients after the procedure.

Session Overview
- Equipment and materials for IUD insertion procedures
- Timing of insertion with regard to menstruation, postpartum, post abortion and lactation periods
- Demonstration of loading of the IUD in the package.
- Demonstration the correct steps in the IUD insertion procedure and the rationale for each step.
- Instructions to be given to clients after insertion.
- Scheduling follow-up appointments with the clients after the procedure.

Methods

- Lecture/Presentation
- Demonstration and Return Demonstration
- Discussion
- Brainstorming

Materials

- Flip chart/Newsprint
- Markers
- LCD Projector and Laptop
- CuT 380 A IUDs
- Hand Models
- Pelvic Models (Madam Zoe)
- Learning Guide for IUD Insertion Techniques

CONTENT

Many of the problems associated with CuT 380A IUDs (expulsion, infection and perforation) are due to improper or careless insertion. To minimize post-insertion problems, all phases of the insertion process must be performed carefully and gently.

Time of insertion

Interval and postpartum

IUD can be inserted:

- anytime during the menstrual cycle, provided pregnancy has been ruled out
  if woman is within the first 12 days of her menstrual cycle, no need for a pregnancy test or other means to rule out pregnancy
  if it is more than 12 days after the start of monthly bleeding, provider should rule-out pregnancy by other means (pregnancy checklist, pregnancy test, etc.)
  no back-up method is needed after IUD insertion regardless of timing
- immediately or within the first 12 days after abortion if there is no infection
- four to six weeks after a vaginal delivery or caesarean section (if was not inserted within the first 48 hours postpartum)

Postpartum IUD (PPIUD) can be inserted only by trained personnel:

- within 10 minutes post-delivery of placenta — ***post-placental***
- after 10 minutes but within 48 hours of delivery — ***pre-discharge***
- during caesarean section — ***trans-Caesarean***

Equipment and Materials

Have the instruments and supplies required for insertion readily available. This will shorten the time between conclusion of the screening pelvic examination and insertion of the IUD.

Note: If the instruments come in a sterile or HLD pack, do not open the pack before the screening pelvic examination has been completed and a final decision to insert the IUD has been made.

- Examination couch/insertion couch
- Light source (torch or angle-poised lamp)
- A trolley containing the following:
  - Speculum (various sizes)
  - Tenaculum/stopes forceps (or vulsellum)
  - Sponge holding forceps
  - Uterine sound (plastic preferably)
  - A pair of scissors
  - Sterile gloves
  - Plastic dilators
  - Straight artery forceps
  - Gallipots (2)
  - IUDs
  - Inserters and introducers (where applicable)
  - Antiseptic lotion (e.g. *Savlon*, *Hibitane*, *Purit)*

- Sterile receiver with cover containing 1 in 2500 iodine solution or 75% alcohol
- Bowl with lid, swabs, pads, sterile towel

- Sodium hypochlorite bleach (e.g. *Jik*, *Parozone*) 0.5%

Procedure

Client preparation

- Screen client for eligibility using the screening checklist for initiation of IUD.
- Explain the procedure of IUD insertion to the client to ensure her cooperation and relaxation
- Demonstrate the procedure with a hand held uterus or pelvic model (where available)
- Ensure that she has emptied her bladder

Steps

- Do a general physical examination of the:
  - breasts for abnormal masses and discharge
  - abdomen for masses and tenderness
- Perform a pelvic examination wearing examination sterile gloves
  - external genitalia — lesions, abnormal discharge
  - bimanual examination
  - note shape, size, position, tenderness, and mobility of the uterus
  - feel for the adnexa — whether ovaries are enlarged or fallopian tubes thickened and tender
- Perform speculum examination to exclude abnormal vaginal discharge, cervicitis. If infection is found/suspected, postpone insertion
- Take a pap smear (if none has been done in the past two years)

If all the above are normal

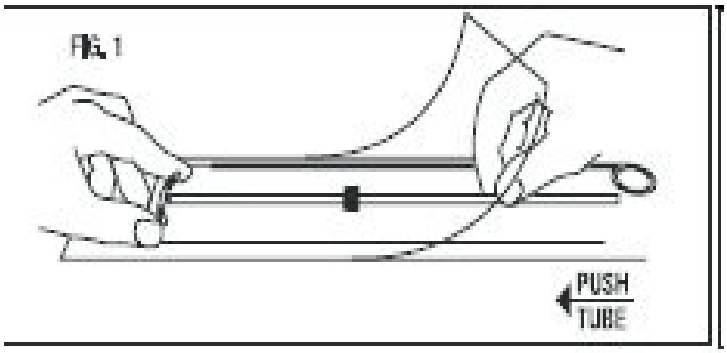
- Leave clean Cusco's/Graves speculum in the vagina
- Clean the vagina and cervix with antiseptic solution (*Savlon* or mixture of Chlorhexidine and *Savlon*)
- Grasp anterior lip of the cervix with a tenaculum/stopes forceps (at 10 o'clock and 2 o'clock positions to minimize bleeding) or at angle 12 o' clock with Bonney stopes forceps
- Gently place traction on the cervix with the tenaculum/stopes forceps or **Bonney stopes** to reduce the angle between the uterine body and the cervix
- While maintaining traction on the tenaculum/stopes forceps or Bonney stopes, gently pass a uterine sound into the uterine cavity until contact is made with the fundus
- Measure the depth from the external os to the top of the fundus by withdrawing the sound and looking at the level of blood or mucus on the sound or by marking the level of the external os on the uterine sound with your index finger before withdrawing the sound.
- Load the device into the inserter

How to Load the Cu T 380A in the Package

Do not bend the arms of Cu T 380A earlier than 5 minutes before it is to be placed in the uterus. Use aseptic technique when handling Cu T 380A and the part of the insertion tube that will enter the uterus. Load the Cu T 380A into the insertion tube while it is in the sterile package by folding the two horizontal arms against the stem and pushing the tips of the arms securely into the inserter tube.

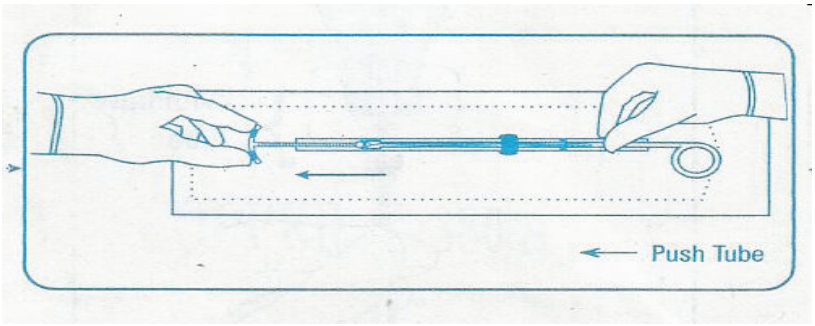
First, place the package face up on a clean surface. Next, open at the bottom end (where arrow says OPEN. Pull the solid white rod partially from the package so it will not interfere with assembly. Place thumb and index finger on top of package on ends of the horizontal arms. Use other hand to push insertion tube against arms of the Cu T 380A (shown by arrow in Fig. 1). This will start bending the T arms.

Figure 1: Loading the IUD in the Package



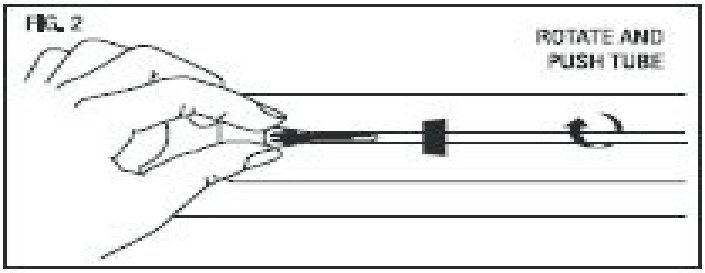
Bring the thumb and index finger closer together to continue bending the arms until they are alongside the stem. Use the other hand to withdraw the insertion tube just enough so that the insertion tube can be pushed and rotated onto the tips of the arms. Your goal is to secure the tips of the arms inside the tube (Fig. 3).

Figure 2: Loading the IUD in the Package; Bend the T arms and push Into the tube



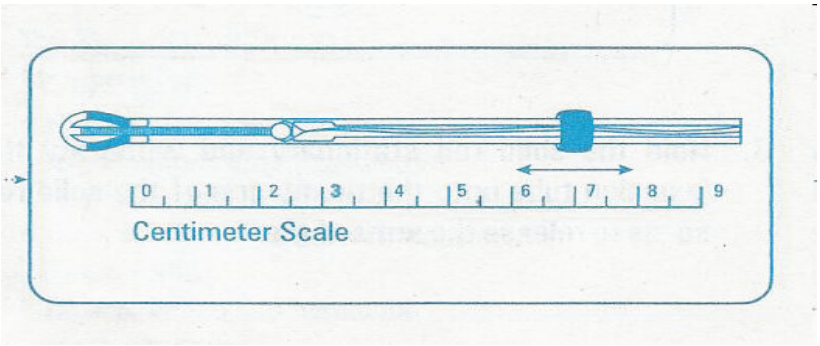
Note: Insert the arms no further than necessary to insure retention

Figure 3: Loading the IUD in the Package, Push the T arms into the Tube



Introduce the solid white rod into the insertion tube from the bottom, alongside the threads, until it touches the bottom of the Cu T 380A.

Figure: 4: IUD loaded in the Package; ready for Insertion



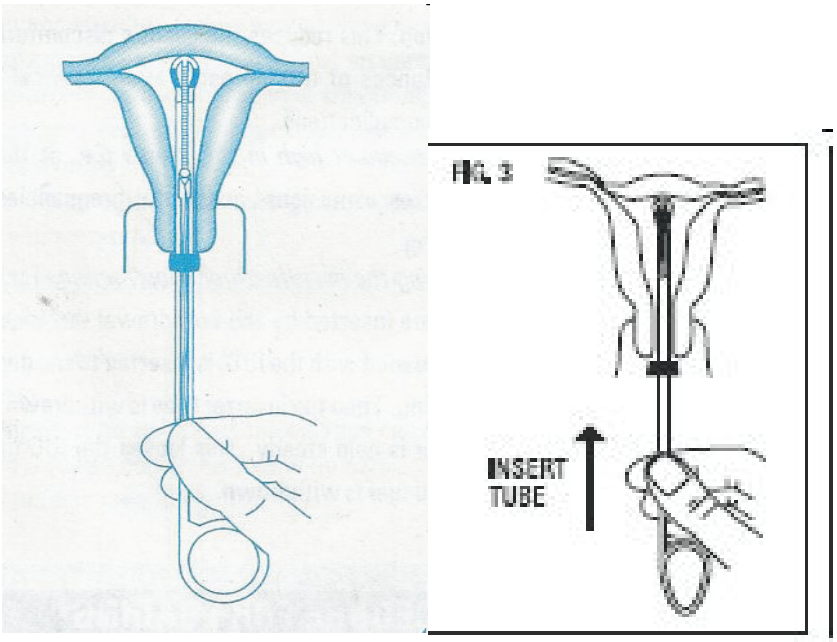
STEPS FOR INTRAUTERINE PLACEMENT OF THE PRE-LOADED Cu T 380A

Note: To introduce the loaded inserter using the withdrawal method observe the no-touch technique in all steps, i.e.

- loading the **IUD** in the inserter inside the sterile package
- clean the cervix with antiseptic
- be careful not to touch the vaginal wall or speculum with the uterine sound or loaded IUD/inserter
- pass both the uterine sound and the loaded **IUD** inserter, **only once,** through the cervical canal

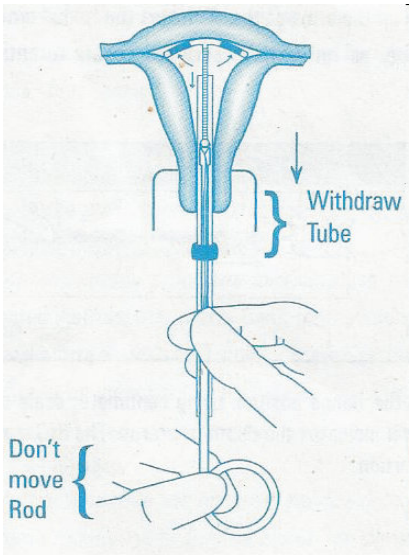
- Grasp the insertion tube at the open end of the package; adjust the blue flange so that the distance from the top of the Cu T 380A (where it protrudes from the inserter) to the blue flange is the same as the uterine depth that you measured with the sound.
- Rotate the insertion tube so that the horizontal arms of the T and the long axis of the blue flange lie in the same horizontal plane (Fig. 3).
- Now pass the loaded insertion tube through the cervical canal until the Cu T 380A just touches the fundus of the uterus. The blue flange should be at the cervix in the horizontal plane.

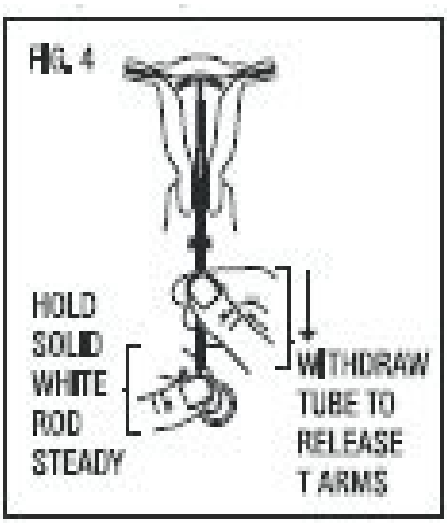
Figure 1: IUD Insertion: Introduce loaded IUD into the uterus



- To release the arms of Cu T 380A, hold the solid white rod steady and withdraw the insertion tube no more than one centimeter. This releases the arms of Cu T 380A high in the uterine fundus (Fig. 4).

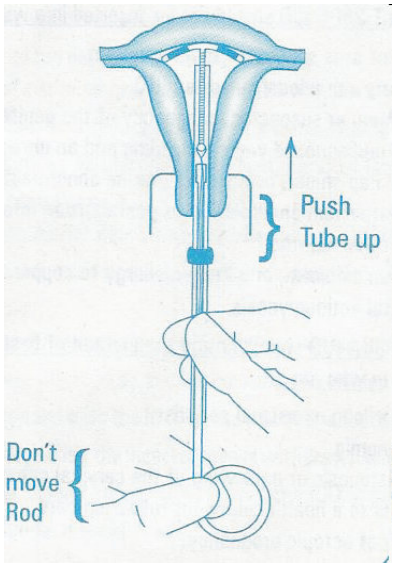
Figure 2: Keep the rod stead; Withdraw the Tube to release the T-arms

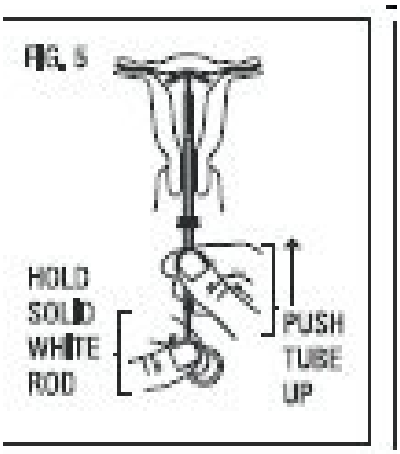




- Gently and carefully move the insertion tube upward toward the top of the uterus, until slight resistance is felt. This will ensure placement of the T at the highest possible position within the uterus (Fig. 5).

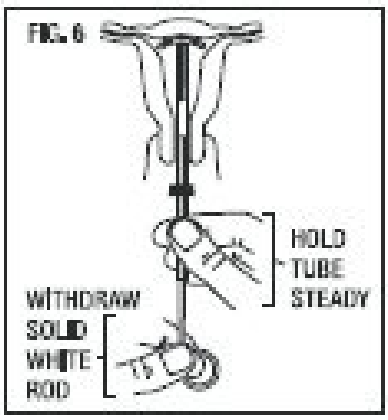
Figure 3: Pushing the Tube up: Don't Move Rod





- Hold the insertion tube steady and withdraw the solid white rod (Fig. 6).

Figure 4: Hold the tube steady; withdraw the white rod

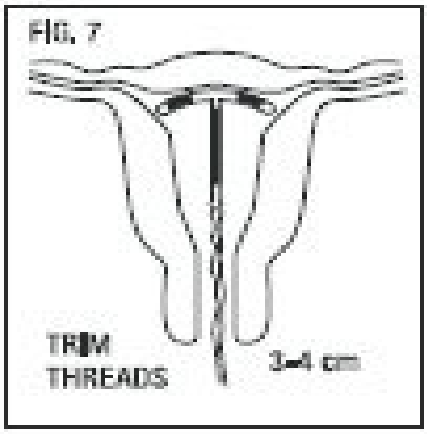


- Gently and slowly withdraw the insertion tube from the cervical canal. Only the threads should be visible protruding from the cervix. (Fig. 7).

- Wrap the threads around the client's cervix. DO NOT TRIM THE THREAD.

Note: If you suspect that the Cu T 380A is not in the correct position, check placement (with ultrasound, if necessary). If the Cu T 380A is not positioned completely within the uterus, remove it and replace it with a new Cu T 380A.
Do not reinsert an expelled or partially expelled CU T380A IUD.

Figure 5: IUD correctly placed in the uterine cavity.



Insertion technique for PPIUD
Types of techniques
- Manual
- Forceps (Kelly's forceps)

Post-placental insertion
- Manually insert IUD or use Kelly's forceps
- IUD insertion should be done within 10 minutes of expulsion of placenta following vagina delivery

Trans-caesarean insertion
- Done during caesarean section
- Massage the uterus until bleeding subsides
- Place the IUD at the top (fundus) of the uterine cavity manually or with a Kelly's placental or ring forceps
- Before closing the uterine incision, place the string in the lower uterine segment

Note: that success and effectiveness depend on high fundal placement of the IUD

Pre-discharge insertion
- Done within 48 hours after delivery while cervix is still open
- Insert IUD with Kelly's forceps or ring forceps

Post-insertion procedure for Cu T 380A IUD

- Ask the client about pain, fainting attacks, or any other discomfort
- Allow the client to rest on the couch for a few minutes and then help her down
- Record findings and give 4–6 weeks appointment

Post-insertion instruction for interval IUD

Inform client that there may be increased bleeding and/or cramping for a few days and that these are normal.

Advise her as follows:

- Heavier menstrual bleeding, and possible bleeding between periods, is common for the first 3–6 months after insertion
- Inspect all sanitary pads or panties during menses because expulsion is more common during menstruation
- Check for string after each menstrual period (recommended, but not required if the woman is uncomfortable inserting fingers into vagina)
- If at risk of STIs (e.g. multiple sexual partners, or partner with multiple partners), use condoms in addition to IUD for dual protection
- Tell the client that she may have sexual intercourse as soon as it is comfortable for her
- Report to the nearest family planning clinic if you notice any of the following:
    - **P** - period late or abnormal bleeding
    - **A** - abnormal pain or pain with intercourse
    - **I** - infection exposure, such as gonorrhoea, abnormal discharges
    - **N** - not feeling well, fever or chills
    - **S** - strings missing, shorter or longer
- Inform your physician of the presence of an IUD if you are going for any gynaecological surgical procedure
- Maintain good personal hygiene

Post-insertion instructions for PPIUD

- Tell the client the kind of IUD she has received. Show her either a sample or picture of the IUD so that she can see how it looks and how large it is
- Indicate the type of IUD boldly on the client's card
- Explain how long the IUD will prevent pregnancy
- Assure the client that the IUD has no effect on breast milk and that she can breastfeed her baby
- Tell the client that she may have sexual intercourse as soon as it is comfortable for her
- Discuss the possibility that IUD may be expelled, especially during the first few weeks after insertion
- Tell the client that she may find the IUD if it is expelled
- Explain that the client can have another IUD inserted if she chooses
- Explain that within a few weeks, the IUD strings will probably come from the womb into the vagina
- Tell her that a health care worker will shorten the strings during a follow-up visit
- She may return before her six-week check-up if the strings are a problem
- Explain how to check for the IUD strings
- Tell the client to:
    - wash her hands using soap to reduce the chances of infection
    - sit in a squatting position, or stand with one foot up on a step or ledge
    - gently insert her finger into her vagina and feel for the cervix, which feels firm, like the tip of the nose

- feel for, but do not pull the strings because pulling it may move the IUD or cause it to be expelled
- wait to begin checking for the strings until after six weeks postpartum
- wash her hands again

Follow-up

First visit (4–6 weeks after insertion)

- Ask the client about her health generally
- Ask about any complaints
- Ask about variations in her menstrual cycle, including inter-menstrual bleeding or spotting, excessive blood loss, and painful menstruation
- Ask her when she last felt the strings of the device (if she checks the strings)
- Carry out abdominal and pelvic examination
- Inspect the cervix to confirm the presence of strings, if long, trim
- Note any cervical discharge
- Palpate for pelvic tenderness
- Advise client on personal hygiene

Schedule of subsequent follow-ups

If all is well

- Yearly visits until the client wishes to have the device removed or the life span of the device expires - Copper T-380A — 12 years
- Repeat the activities of first visit at each subsequent visit
- Encourage a pap smear every two years

SUMMARY

Long-term success, as defined by satisfied clients and high continuation rates, will occur only if CuT 380A IUD insertion is properly conducted and the provider recognizes the importance of providing follow-up care (including Counselling) and prompt management of side effects as well as other problems should they occur.

EVALUATION

- Mention the steps of the correct procedure for Cu T380A IUD insertion
- Present the post-insertion instructions and correct procedure for follow-up visits.
- State the warning signs a client must report after IUD insertion.

- **Module Four- Session 2: Jadelle® and Zarin® Implants' Insertion Techniques**

Time: 1 hour

Learning Objectives

By the end of this session, participants should be able to:

- Identify the equipment and materials for Jadelle® and Zarin® Implants insertion procedures
- List timing of insertion with regard to menstruation, postpartum, post abortion and lactation periods
- Demonstrate the correct insertion technique with regard to asepsis, anaesthesia, location of incision, and careful correct placement of the implants
- Demonstrate the unique insertion techniques of Jadelle® and Zarin® implants
- Demonstrate the correct application of dressing after insertion.
- Explain the instructions to be given to clients after insertion.
- Schedule follow-up appointments with the clients after the procedure.

Session Overview

- Equipment and materials for Jadelle® and Zarin® implants' insertion procedures
- Timing of insertion with regard to menstruation, postpartum, post abortion and lactation periods
- Demonstration of the correct insertion technique for Jadelle® and Zarin® implants with regard to asepsis, anaesthesia, location of incision, and careful correct placement of the implants
- Demonstration of the correct application of dressing after insertion.
- Instructions to be given to clients after insertion.
- Scheduling follow-up appointments with the clients after the procedure.

Methods

- Lecture/Presentation
- Demonstration and Return Demonstration
- Discussion
- Brainstorming

Materials

- Flip chart/Newsprint
- Markers
- LCD Projector and Laptop
- **Jadelle® and Zarin® implants**
- Arm Models
- Learning Guide for **Jadelle® and Zarin® implants'** Insertion Techniques

CONTENT

Insertion techniques involve correct subdermal placement of the implants. The insertion procedure for Implanon being slightly different from those of and Jadelle and Zarin is described separately.

Timing of insertion

Having menstrual cycles

- Any time it is reasonably certain that she is not pregnant

If she is not at risk of pregnancy (for example, has not had sex since last menstrual period), she may start using Implant at any time she wants

- If starting during the first 7 days after menstrual bleeding starts, and she is still bleeding, no back-up method is needed for extra protection
- If she is not bleeding or she is starting on or after day 8 of her menstrual period, she should use condoms or spermicide or avoid sex for 48 hours after insertion. If possible, give her condoms or spermicide

Breastfeeding

- As early as 6 weeks after childbirth
- Fully or nearly fully breastfeeding effectively prevents pregnancy for at least 6 months or until she has a menstrual period, whichever comes first, implants can give her extra protection if she wants it.
- If only partially breastfeeding and child receives much other food or drink, 6 weeks after childbirth is the best time to start using implants. If she waits longer, fertility may return.
- If menstrual periods have returned, she can start implant any time it is reasonably certain that she is not pregnant. See “Having Menstrual Cycles”, above

After Childbirth, if not Breastfeeding

- Immediately or at any time in the first 6 weeks after childbirth. No need to wait for her menstrual period to return
- After 6 weeks, any time it is reasonably certain, that she is not pregnant. If not reasonably certain, she should avoid sex or use condoms or spermicide until her first period begins and then start Norplant implants.

After Miscarriage or Abortion

- Immediately or in the first 7 days after either first or second – trimester miscarriage or abortion
- Later, any time it is reasonably certain that she is not pregnant

When stopping another method

- Immediately

Equipment and materials

- One set of implant capsules
- Trocar and cannula as supplied
- Sterilized surgical drapes
- Sterile gloves preferably devoid of talcum powder
- Antiseptic solution like *Savlon, Hibitane* or *Betadine*
- Local anesthetic agent like *Xylocaine* 1%
- Syringe and needle
- Sterile gauze*/c*otton wool
- Plaster
- Artery forceps (2)
- Scalpel and blade (size 12) (optional)
- Examination couch with arm rest
- Disinfectant solution, e.g. *Jik*
- Plastic bowl

Procedure

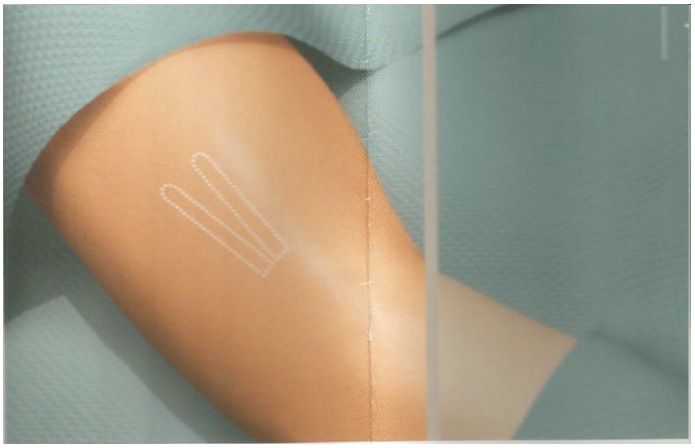
Client preparation

- Screen the client for eligibility using the screening checklist for initiation of contraceptive implants.
- Listen to the client's concern and respond to her questions appropriately
- Give clear information about probable changes in bleeding pattern during the menstrual cycle and other possible side effects
- Describe the insertion and removal procedures and what the client should expect during and afterwards
- Ensure client's cooperation and relaxation
- Review client assessment data to determine if the client is an appropriate candidate for implants or if she has any problems that should be monitored more frequently while the implants are in place
- Do a general examination
- Do a pelvic examination if needed or requested by client (pelvic examinations are not necessary for safe implant initiation and use, but may be indicated for other reasons and are part of the preventive medicine practices and health promotion)

Steps for inserting contraceptive implant

- Instruct the client to lie on the couch with arm stretched out comfortably
- Support arm with arm rest
- Use proper infection prevention procedure (see Chapter 19)
- Wash hands
- Ask the patient to lie down on the examination table with her non-dominant arm extended on a sterile cloth on the other table, at right angles to her body. The implants will be inserted subdermally in the shape of a narrow V, opening towards the armpit.
- Clean the area of insertion with antiseptic solution: iodine (if available) and finally with spirit
- Apply sterile drapes exposing the insertion area only (under the skin of the upper arm).

Figure 4.2.1: Subdermal placement of Jadelle[R] and Zarin[R] implants



- Clean the client's upper arm with an antiseptic solution, and cover the arm with either two sterile clothes or a dry sterile fenestrated drape. The optimal insertion area is in the medial aspect of the upper arm about 6 – 8 cm above the fold of the elbow.

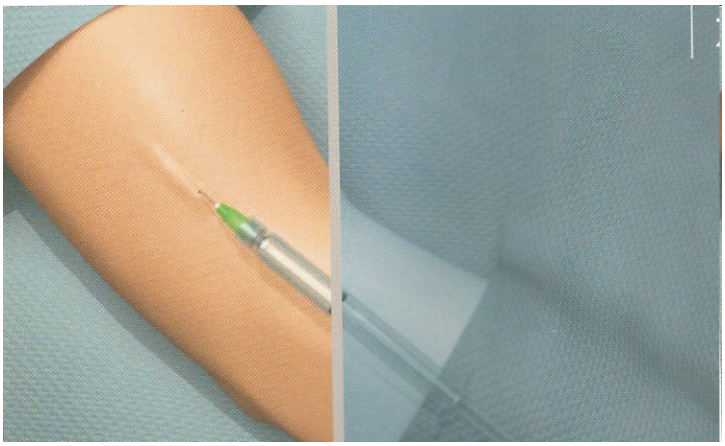
- Open the **Jadelle[R] (or Zarin[R])** pouch by pulling apart the films of the pouch and let the two implants drop on a sterile cloth. Do not touch the inside of the package or its contents with bare hands. There should be two implants.

Note: Always use sterile gloves or forceps when handling the rods. If an implant is contaminated, e.g., falls on the floor. Leave it for later disposal. Open a new package and continue with the procedure.

- First determine the absence of known allergies to the anaesthetic agent or related drugs. Fill the syringe with 2 – 4 mls of local anaesthetic.

- Anaesthetize the insertion area by inserting the needle just under the skin about 4 to 5.5 cm in the direction where you are planning to introduce the trocar.
- Insert the trocar directly through the skin without making an incision with a scalpel.

Figure 4.2.2: Anaesthetizing the insertion area

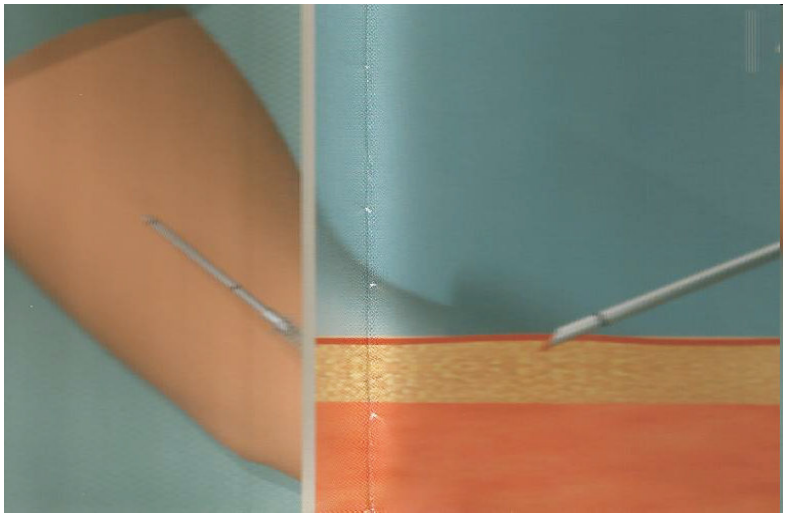


- The trocar has two marks. The mark close to the handle indicates how far the trocar should be introduced under the skin before loading the implant. The mark closest to the tip indicates how much of the trocar should be left under the skin following the insertion of the first implant. When inserting the trocar, avoid touching the part of the trocar that will go under the skin.

- Once the tip of the trocar is beneath the skin, it should be directed along the skin horizontally by pointing slightly upwards toward the raising the skin (tenting) to keep the implant in the subdermal plane. Throughout the insertion procedure, the trocar should be oriented with the bevel up.

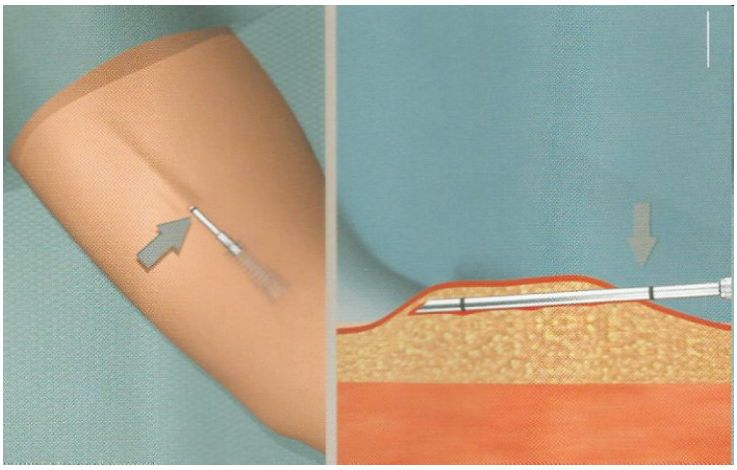
Note: It is important to keep the trocar subdermal by tenting the skin with the trocar, as failure to do so may result in deep placement of the implants causing a more difficult removal.
Do not force the trocar, and if you feel any resistance, try another direction.

Figure 4.2.4: Introducing the trocar just beneath the skin



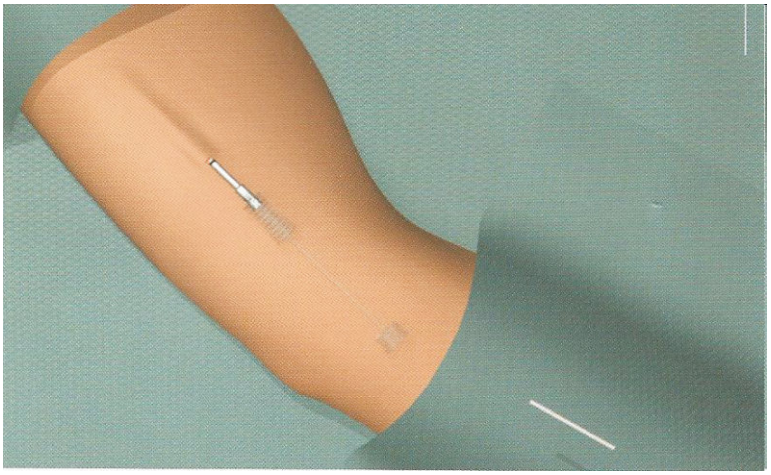
- Advance the trocar beneath the skin about 5.5 cm from the incision to the mark closest to the handle of the trocar.

Figure 4.2.5: Advancing to the mark while tenting



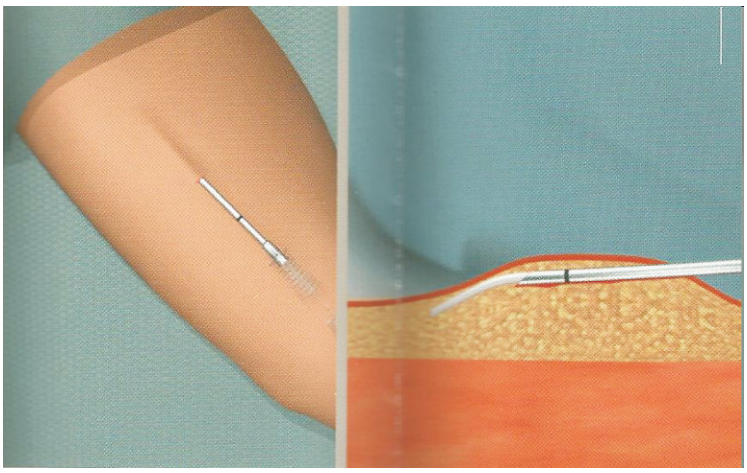
- Remove the plunger when the trocar is advanced to the correct mark (Figure 4.2.6.
- Load the first implant into the trocar either with tweezers or fingers.
- Push the implant gently with the plunger to the tip of the trocar until resistance is felt. Never force the plunger.

Figure 4.2.6: Removing the plunger and loading the first implant



- Hold the plunger steady and pull the trocar back along it until it touches the handle of the plunger. Do not completely remove the trocar until both implants have been placed. The trocar is withdrawn only to the mark closest to its tip.

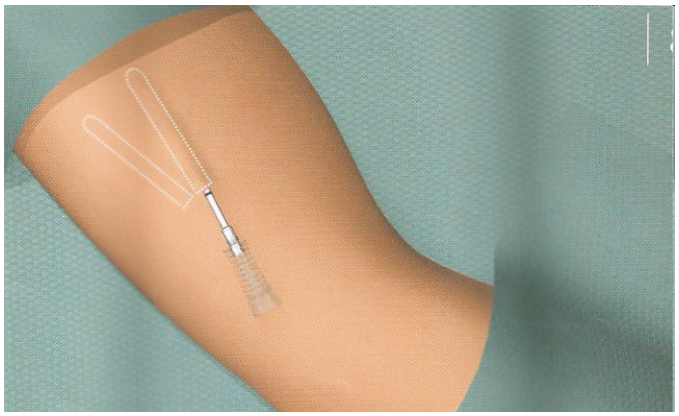
Figure 4.2.7: Holding the plunger steady and pulling the trocar to the mark near the tip



Note: It is important to keep the plunger steady and not to push the implant into the tissue

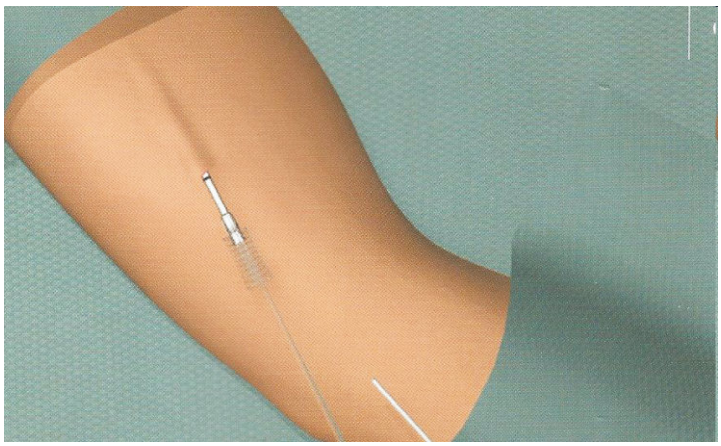
- When you can see the mark near the tip of the trocar in the incision, the implant has been released and will remain in place beneath the skin. You can check by palpation.
- Insert the second implant next to the first one to form a V-shape. Advancing again to

Figure 4.2.8: Inserting the second implant. Advancing again to the mark forming a narrow V



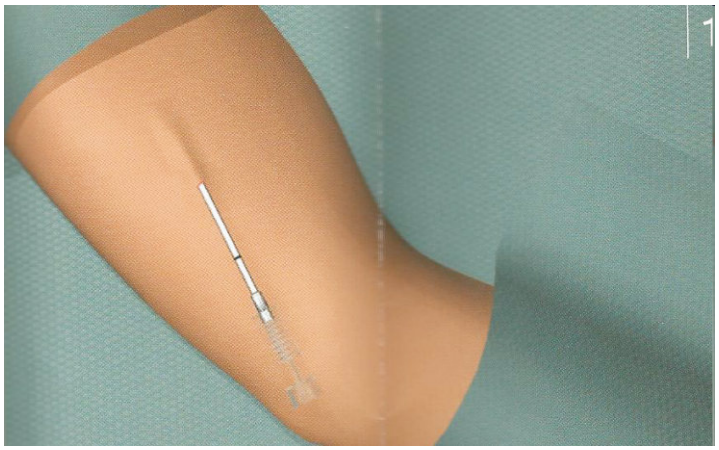
- Fix the position of the first implant with the left fore-finger and advance the trocar along the side of the finger. This will ensure a suitable distance between implants.
- Remove the plunger and load the second implant.

Figure 4.2.9: Loading the second implant



- Hold the plunger steady while pulling the trocar back (figure 4.2.10).

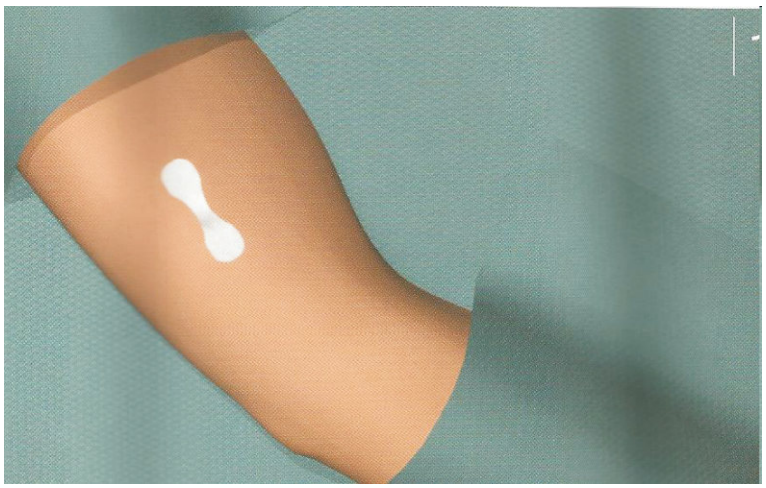
Figure 4.2.10: Holding the plunger steady while pulling the trocar back



- To prevent expulsion, leave a distance of about 5 mm between the puncture sites and the ends of the implants. Their correct position can be checked by cautious palpation of the insertion area.

- After the insertion, apply a small gauze slightly soaked in iodine solution before covering with plaster.

Figure 4.2.1.11: Closing the incision



- Observe the client at the clinic for a few minutes for signs of syncope or bleeding from the incision before she is discharged.

PROCEDURE TO FOLLOW AFTER INSERTION OF IMPLANT CAPSULES (ALL IMPLANTS)

Covering the Insertion

- Bring the edges of the incision together and use a band-aid 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.
- 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 (gauze, cotton and other waste items) in a properly marked, leak-proof container with a tight-fitting lid or in a plastic bag.
- Immerse both gloved hand briefly in chlorine solution and then carefully remove gloves by turning inside out and place in the waste container
- Wash hands thoroughly with soap and water.
- All waste materials 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 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 post insertion care instructions (if available) as appropriate.

Client's 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 and plaster in place for 48 hours and the band-aid 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.

SUMMARY

Insertion techniques involve paying attention to asepsis, anaesthesia, as well as the length and location of the puncture site. Careful subdermal placement ensures easy removal thereafter. Standard insertion techniques are similar for Jadelle and Zarin, while Implanon has a single use pre-loaded applicator as will be discussed in the next session.

EVALUATION

- Mention the steps of the correct procedure for Jadelle and Zarin insertion technique.
- List the post-insertion instructions given to the client.
- State the correct procedure for follow-up visits.
- State the warning signs a client must report after implant insertion.

Module Four- Session 3: Implanon[R] Contraceptive Implants' Insertion Techniques

Time: 1 hour

Learning Objectives

By the end of this session, participants should be able to:

- Identify the equipment and materials for Implanon[R] classic and Implanon NXT™ Implants insertion procedures
- List timing of insertion with regard to menstruation, postpartum, post abortion and lactation periods
- Demonstrate the correct and unique insertion technique of Implanon[R] and Implanon NXT™ with regard to asepsis, anaesthesia, location of incision, and careful correct placement of the implants
- Demonstrate the correct application of dressing after insertion.
- Explain the instructions to be given to clients after insertion.
- Schedule follow-up appointments with the clients after the procedure.

Session Overview

- Equipment and materials for Implanon[R] and Implanon NXT™ insertion procedures
- Timing of insertion with regard to menstruation, postpartum, post abortion and lactation periods
- Demonstration of the correct insertion technique for Implanon[R] and Implanon NXT™ with regard to asepsis, anaesthesia, location of incision, and careful correct placement of the implants
- Demonstration of the correct application of dressing after insertion.
- Instructions to be given to clients after insertion.
- Scheduling follow-up appointments with the clients after the procedure.

Methods

- Lecture/Presentation
- Demonstration and Return Demonstration
- Discussion
- Brainstorming

Materials

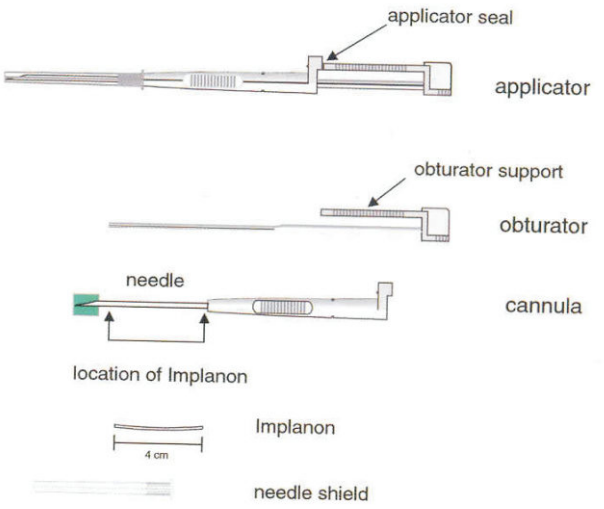
- Flip chart/Newsprint
- Markers
- LCD Projector and Laptop
- **Implanon[R] implants**
- Arm Models

CONTENT

Only a physician who is familiar with the procedure of Implanon and Implanon NXT™ insertion should undertake the procedure and it must be done under aseptic conditions.

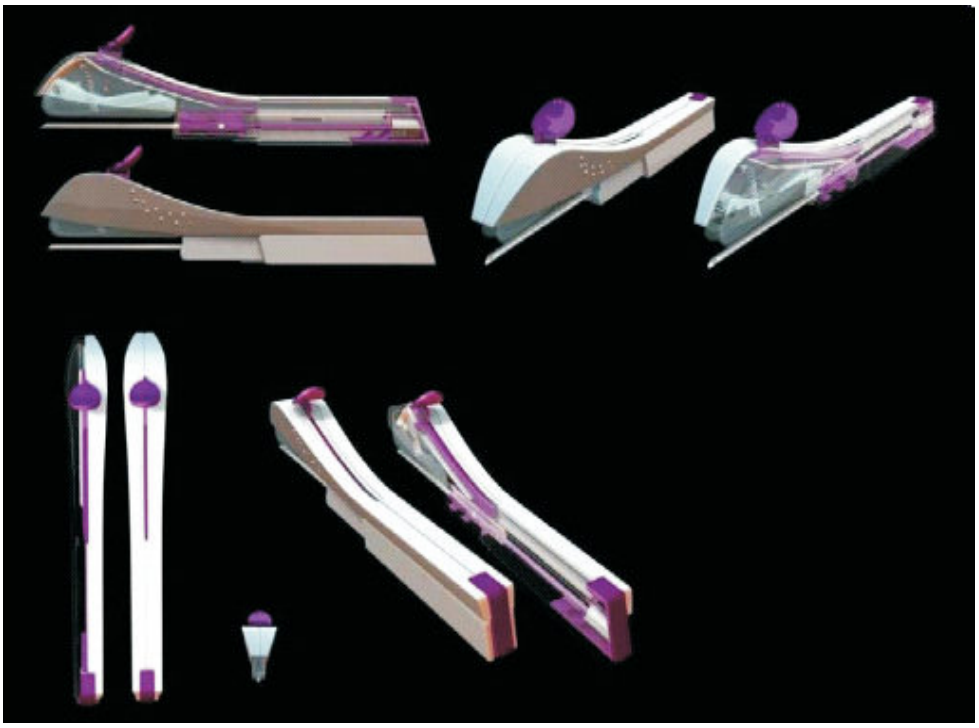
The insertion of Implanon and Implanon NXT™ is performed with the specially designed applicator. The use of this applicator differs substantially from that of a classical syringe. A drawing of a dismantled applicator and its individual components (e.g. cannula, obturator and needle with double-angled bevel) is shown below to clarify their specific functions.

Figure 4.3.1: Components of an Implanon Applicator

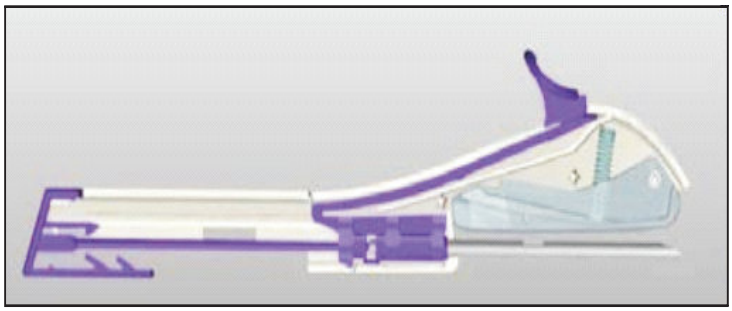


Note: The procedure used for insertion of Implanon is opposite to giving an injection. When inserting Implanon the obturator must remain fixed while the cannula (needle) is retracted from the arm. For normal injections the plunger is pushed and the body of the syringe remains fixed.

Figure 4.3.2: Components of an Implanon NXT™ Applicator in different angle dimension



- Cap-blocking mechanism with cap/lever
- Implant retained in needle before insertion
- Single-handed movement with slider
- Needle partly visible
- Preloaded for single use only

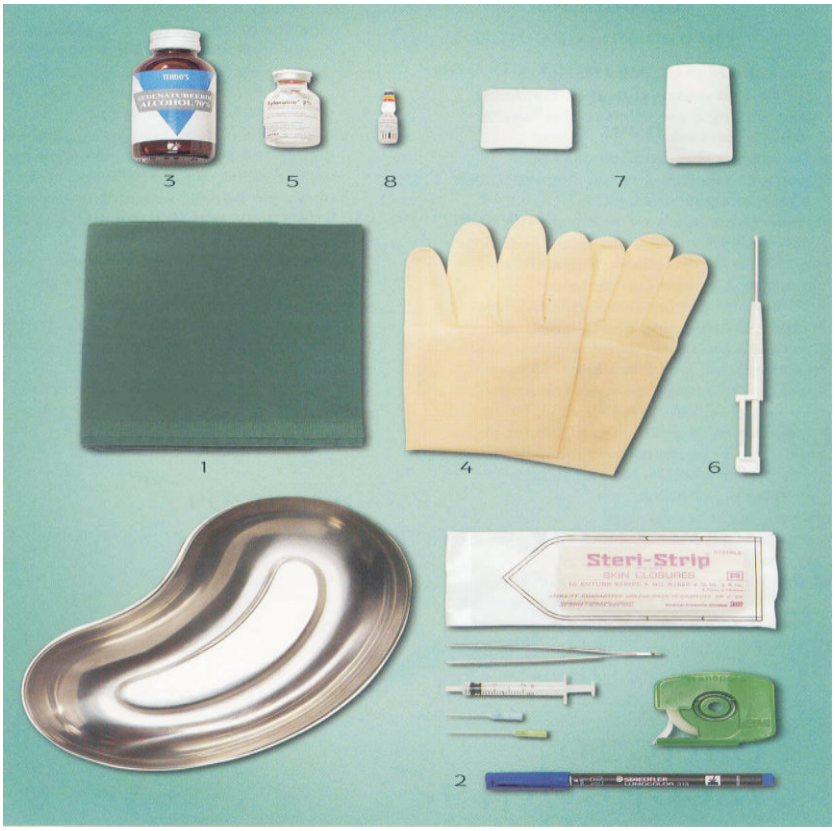


Equipment Needed for Insertion

The materials required for Implanon insertion are shown in the figure below. They are itemised below with the number they are labelled with in the picture placed in parentheses:

- Examining table for the patient to rest her arm on
- Sterile cloth (1)
- Marker pen (2)
- Antiseptic solution (3)
- Sterile gloves (4)
- Local anaesthetic spray, or injection of I ml lidocaine [Xylocaine] (5)
- Preloaded, sterile Implanon applicator containing a single rod (6)
- Sterile gauze and compress (7)

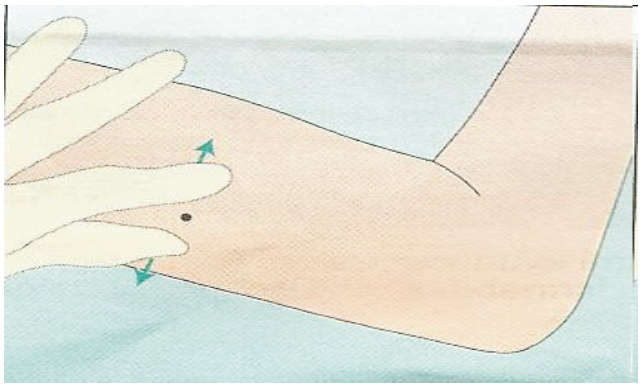
Figure 4.3.2: Materials Required for Implanon Insertion



- Allow the subject to lie on her back with her non-dominant arm (the arm which the woman does not use for writing) turned outwards and bent at the elbow. If preferred, a sitting position can be taken.
- Arrange the materials and instruments so that they are accessible.
- To minimize the risk of neural or vascular damage, Implanon should be inserted at the inner side of the upper arm (non-dominant arm) about 6-8 cm above the elbow crease in the groove between the biceps and the triceps (sulcus bicipitalis medialis).

Note: When Implanon is inserted too deeply (intramuscularly or in the fascia) this may cause neural or vascular damage. Too deep insertions have been associated with paraesthesia (due to neural damage) and migration of the implant (due to intramuscular or fascial insertion), and in rare cases with intravascular insertion. Moreover, when the implant is inserted too deeply, it may not be palpable and the localization and/or removal can be difficult later on.

Figure 4.3.2: Inserting the implant at the inner side of the upper arm



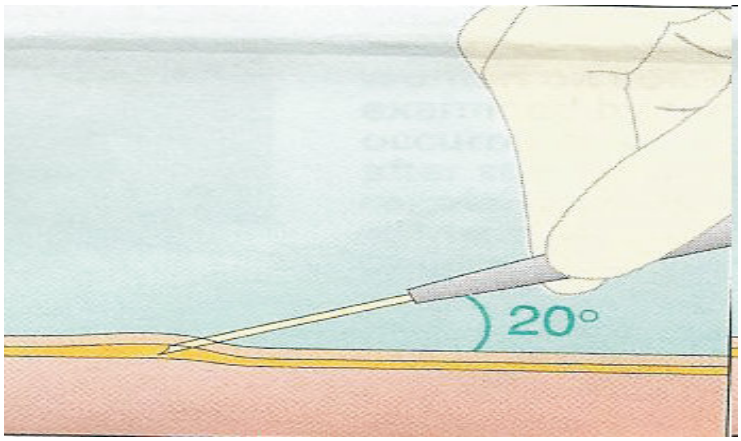
- Mark the insertion site.
- Prepare the insertion site with a cotton swab soaked with antiseptic.
- Anaesthetize with an anaesthetic spray, or with 2ml of lidocaine (Xylocaine 1%) applied just under the skin along the "insertion canal."
- Carefully remove the sterile disposable applicator carrying the Implanon from its blister.
- While keeping the shield on the needle, visually verify the presence of the implant, seen as a white body inside the needle tip. If the implant is not seen, tap the top of the needle shield against a firm surface to bring the implant into the needle tip, following visual confirmation, the implant should be lowered back into the needle by doing the opposite. The needle shield can now be removed.

Note: The implant can fall out the needle prior to insertion. Therefore, always hold the application in the upward position (i.e., with the needle pointed upwards) until the time of insertion. This is to prevent the implant from dropping out.

Keep the needle and the implant sterile. If contamination occurs, a new package with a new sterile applicator must be used.

- Always hold the applicator in the upward position (i.e. with the needle pointed upward) until the time of insertion. This prevents the implant from dropping out.
- Stretch the skin around the insertion site with thumb and index finger (Figure 4.3.2 above).
- Insert first only the tip of the needle, slightly angled (20^0).

Figure 4.3.3: Inserting the needle at 20^0



- Release the skin.
- Lower the applicator to a horizontal position (Figure 4.3.4)
- Lift the skin with the tip of the needle, but keep *the needle in the subdermal* connective tissue.
- Gently insert, while lifting the skin, the needle to its full length without using force to ensure superficial insertion (Figure 4.3.5).
- Keep the applicator parallel to the surface of the skin
- Break the seal of the applicator (Figure 4.3.6).
- Turn the obturator 90° (Figure 4.3.7).
- Fix the obturator with one hand against the arm and with the other hand slowly retract the cannula (needle) out of the arm (Figure 4.3.8).

Figure 4.3.4: Lowering the applicator to the horizontal position

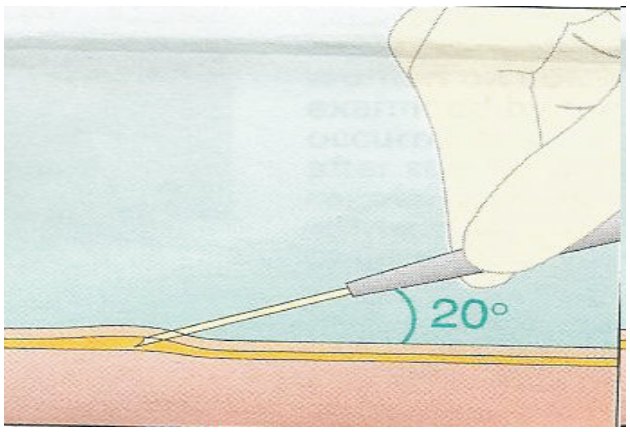


Figure 4.3.5: Lifting the skin with the needle during insertion

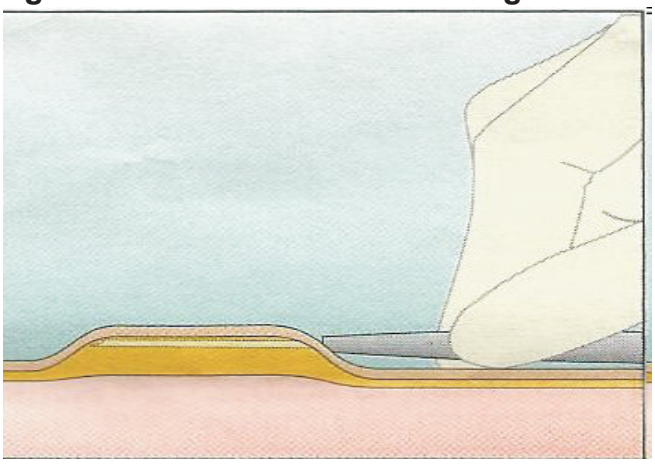


Figure 4.3.6: Breaking the seal of the applicator

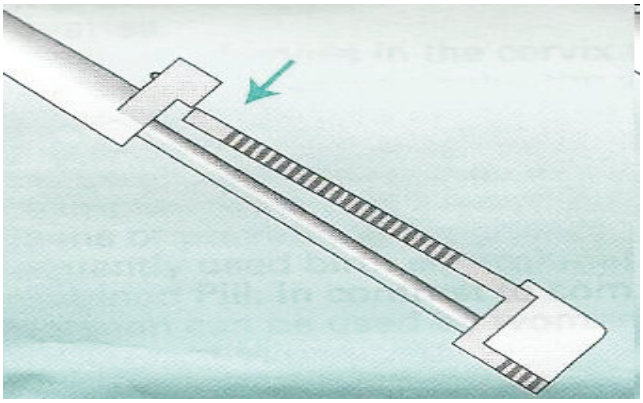


Figure 4.3.7: Turning the obturator 90^0

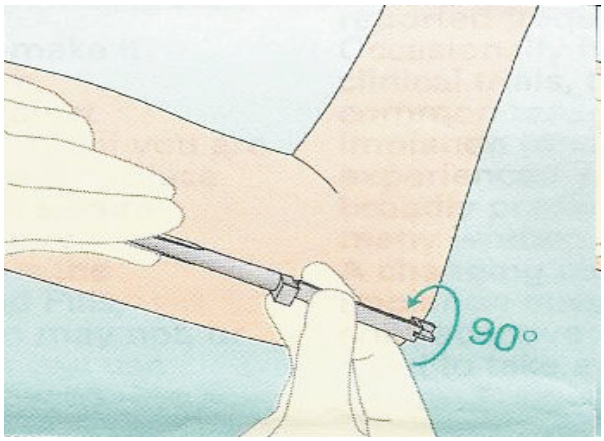
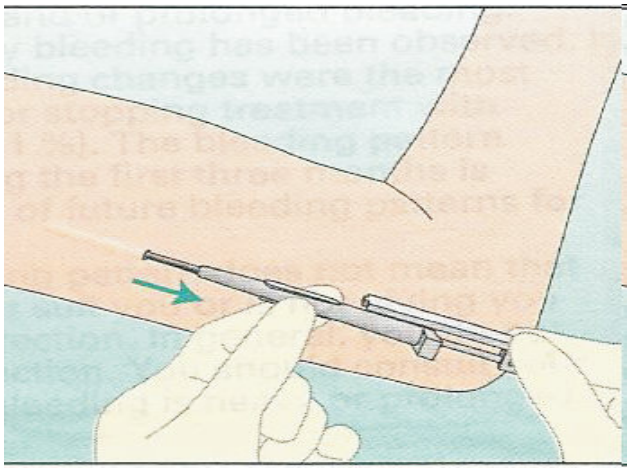


Figure 4.3.8: Retracting the cannula (needle) out of the skin



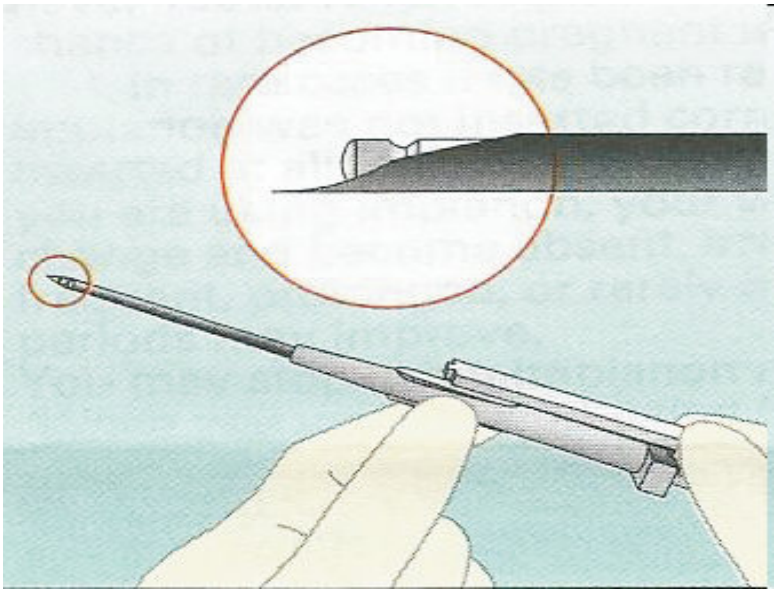
Note: Never push against the obturator.

- Check the needle for the absence of the implant. Do not confuse the protruding end of the obturator with the implant (same colour). (Figure 4.3.9)

Note: This procedure is opposite to giving an injection, where the plunger is pushed and the syringe is fixed. By keeping the obturator in its place and simultaneously pulling the cannula, the implant will remain in the upper arm.

- Always verify the presence of the implant by palpation and have the woman palpate it herself.
- Apply sterile gauze with a pressure bandage to prevent bruising

Figure 4.3.9: Checking the needle for the absence of the implant.



Note: In case the implant cannot be palpated or when the presence of the implant is doubtful, other methods must be applied to confirm its presence. Suitable methods to locate the implant are, first of all, ultrasound (USS) and secondly, magnetic resonance imaging (MRI). Prior to the application of USS or MRI for the localization of Implanon, it is recommended that Organon be consulted for instructions. In case these imaging methods fail, it is advised to verify the presence of the implant by measuring the etonorgestrel level in a blood sample of the subject. In this case Organon will also provide the appropriate procedure.

Until the presence of Implanon has been confirmed, a contraceptive barrier method must be used.

- Apply sterile gauze with a pressure bandage to prevent bruising.

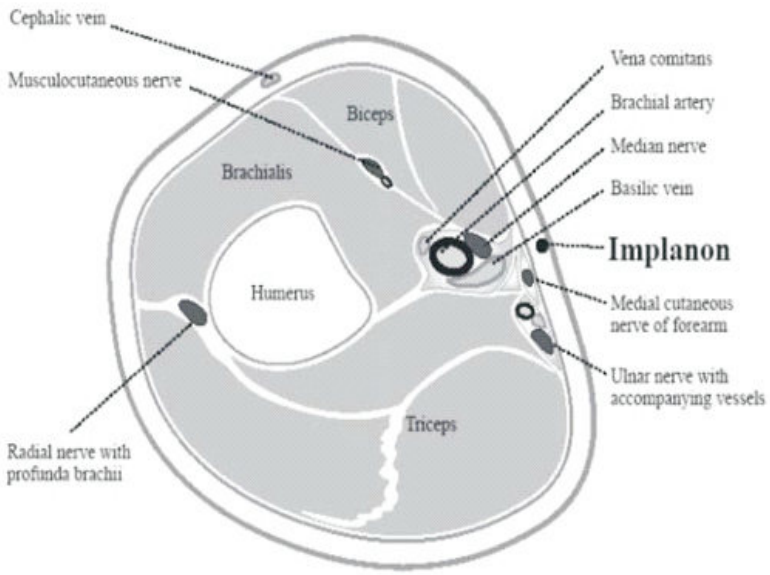
- Fill out the User Card and hand it over to the subject to facilitate removal of the implant later on (Fill also the client's record which is kept in the facility).

Note: The applicator is for single use only and must be adequately disposed of in accordance with local regulations governing the handling of biohazardous waste.

Preparation for insertion of Implanon NXT™

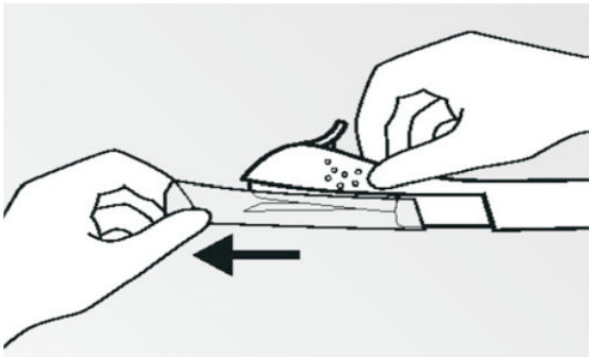
- Insertion of IMPLANON NXT™ **should be performed under aseptic conditions**
- Insertion of the implant **should only be performed with the preloaded applicator**
- **Confirm no allergies to antiseptic and anesthetic**
- Allow the woman to lie on her back with her non-dominant arm turned outwards and bent at the elbow
- To minimize the risk of neural or vascular damage, the implant **should be inserted subdermally at the inner side of the non-dominant upper arm about 8-10 cm above the medial epicondyle of the humerus** in order to avoid the large blood vessels and nerves that lie deeper in the subcutaneous tissue in the sulcus between the triceps and biceps muscles

Figure 4.3.10: Correct Placement of Implanon NXT™ Subdermally



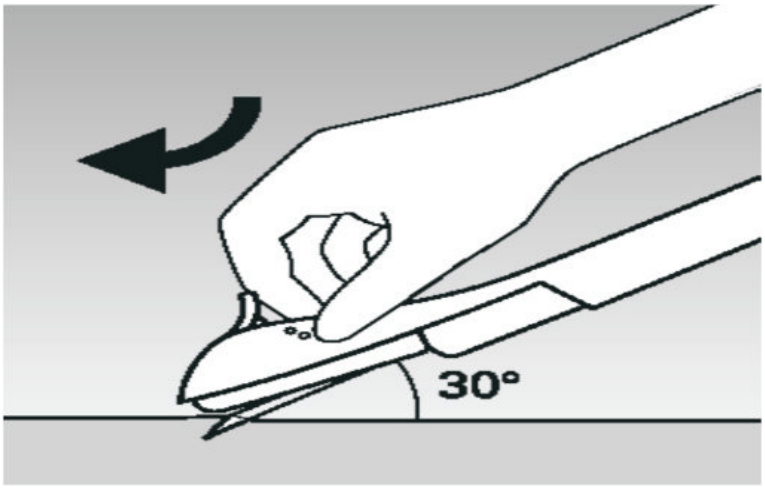
- Make 2 marks: one at insertion site and a second one a few centimeters above the insertion site to be used as direction guide during insertion
- Clean the insertion site with an antiseptic
- Anesthetize the insertion area (for example, with anesthetic spray or by injecting 2 ml of 1% lidocaine just under the skin along the planned insertion tunnel)
- Remove the sterile disposable applicator carrying the implant from its blister

Figure 4.3.11: Removing the sterile disposable applicator carrying the implant from its blister



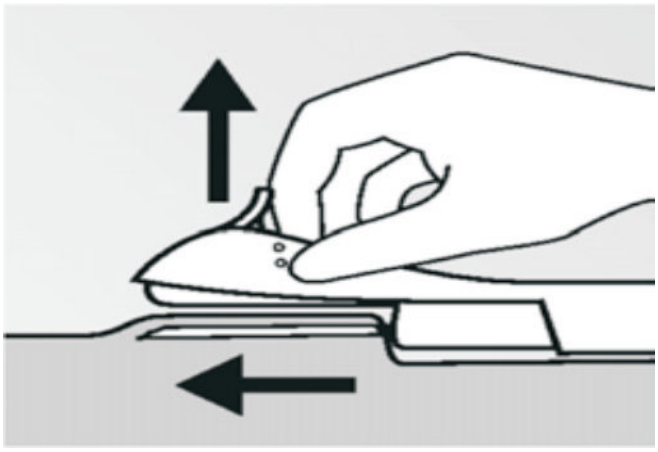
- Keep the needle and the implant sterile (if contamination occurs, a new package with a new sterile applicator must be used).
- Implanon NXT™ should be inserted subdermally.
- If the implant is inserted too deeply, neural or vascular damage may occur. Too deep or incorrect insertions have been associated with paresthesia (due to neural damage) and migration of the implant (due to intramuscular or fascial insertion), and in rare cases with intravascular insertion. Moreover, when the implant is inserted too deeply, it may not be palpable and the localization and/or removal can be difficult.
- Hold the applicator just above the needle at the textured surface area and remove the transparent protection cap from the needle which contains the implant
- If the cap does not come off easily the applicator should not be used and replaced by a new one.
- You may see the white colored implant by looking into the tip of the needle.
- Do not touch the purple slider until you have fully inserted the needle subcutaneously, as it will retract the needle and release the implant from the applicator.
- Stretch the skin around the insertion site with thumb and index finger.
- Puncture the skin with the tip of the needle angled about 30°.

Figure 4.3.12: Puncture the skin with the tip of the needle angled about 30°



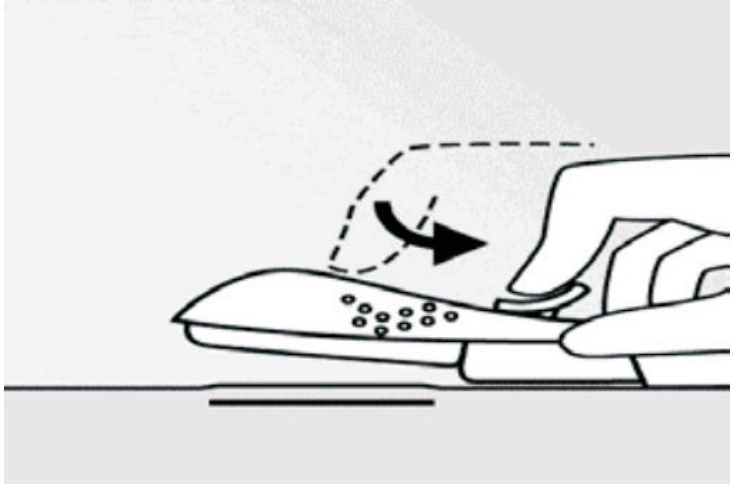
- During the entire insertion procedure you should be able to see the insertion site and the movement of the needle
- Lower the applicator to a horizontal position
- While lifting the skin with the tip of the needle, slide the needle to its full length

Figure 4.3.13: Sliding the needle to its full length



- You may feel slight resistance but do not exert excessive force
- If the needle is not inserted to its full length, the implant will not be inserted properly
- While keeping the applicator in the same position and the needle inserted to its full length, unlock the purple slider by pushing it slightly down

Figure 4.3.14: Unlocking the purple slider by pushing it slightly down



- Move the slider fully back until it stops, leaving the implant now in its final subdermal position and locking the needle inside the body of the applicator
- Now the implant is in its final subdermal position, inserting the needle to its full length is crucial; failure to do so will result in a partly visible implant protruding from the skin
- If partial protrusion occurs, discard the implant and reinsert a new sterile implant using a new applicator
- Remove the applicator

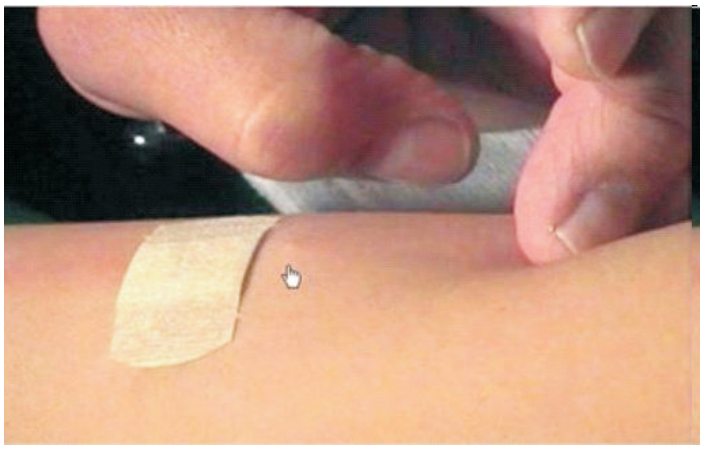
Post-Insertion Steps

- Apply a small adhesive bandage over the insertion site
- Apply a sterile gauze with a pressure bandage to minimize bruising. The woman may remove the pressure bandage after 24 hours and the small bandage after 3-5 days
- Complete the User Card and give it to the woman to keep and complete the adhesive labels and affix to the woman's medical record
- The applicator is for single use only and must be disposed of the inserting physician in accordance with local regulations for biohazardous waste

Confirmation immediately after insertion

- Always **verify the presence of the implant by palpation**

Figure 5.3.15: Confirmation of the implant immediately after insertion



Waste Disposal and Decontamination

- Properly discard the Implanon NXT™ Applicator
- Before removing gloves, place instruments into a container filled with 0.5% chlorine solution for decontamination.
- 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 (gauze, cotton and other waste items) in a properly marked, leak-proof container with a tight-fitting lid or in a plastic bag.
- Immerse both gloved hand briefly in chlorine solution and then carefully remove gloves by turning inside out and place in the waste container
- Wash hands thoroughly with soap and water
- All waste materials should be disposed of by burning or burying Fill out the User Card and hand it over to the subject to facilitate removal of the implant later on (Fill also the client's record which is kept in the facility).

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 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 post insertion care instructions (if available) as appropriate.

Client's 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 and plaster in place for 48 hours and the band-aid 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 you cannot feel the Implant or in doubt of its presence:

- Check the applicator. The needle should be fully retracted and only the purple tip of the obturator should be visible. In any other case, the insertion must be considered to not have been complete

- Use other methods to confirm the presence of the implant presence in the arm. Suitable methods are: **two-dimensional X-ray, ultrasound scanning (USS)** with a high-frequency linear array transducer (10 MHz or greater), X-ray computerized tomography (**CT scan**), or magnetic resonance imaging (**MRI**). Prior to the application of X-ray, USS, CT, or MRI for the localization of the implant, it is recommended, to consult the local supplier of Implanon NXT™ for instructions

- In case these imaging methods fail, it is advised to verify the presence of the implant in the arm by measuring the etonogestrel level in a blood sample of the subject. In this case the local supplier will provide the appropriate procedure

- Until you have verified the presence of the implant, a non-hormonal contraceptive method must be used

SUMMARY

As in the Jadelle and Zarin Insertion techniques, attention must be paid to asepsis, anaesthesia, as well as the length and location of the puncture site. Careful subdermal placement ensures easy removal thereafter. Implanon has a single use pre-loaded applicator unlike Jadelle and Zarin implants.

EVALUATION

- Mention the steps of the correct procedure for Implanon insertion.
- List the post-insertion instructions given to the client.
- State the correct procedure for follow-up visits following Implanon insertion.
- State the warning signs a client must report after Implanon insertion.

Module Four – Session 4: IUD Removal Techniques

Time: 1 hour

Learning Objectives:

By the end of this session, participants should be able to:

- Identify the indications for removal of IUDs.
- Identify the equipment and materials for IUD removal procedures
- Demonstrate the correct removal techniques with regards to asepsis, and removal procedure.
- List what to do when difficulties arise during removal.
- List appropriate steps for reinsertion, if needed.
- Demonstrate post-removal counselling techniques.

Session Overview:

- Indications for removal of IUDs.
- Equipment and materials for IUD removal procedures
- Demonstration of the correct removal techniques with regards to asepsis, and removal procedure.
- What to do when difficulties arise during removal.
- Appropriate steps for reinsertion, if needed.
- Demonstration of post-removal counselling techniques

METHODS

- Lecture
- Discussion
- Demonstration and Return Demonstration

MATERIALS

- Training Arm
- Video Films or Removal Techniques and VCR
- Removal Kit
- Overhead Projector
- Implant Capsules
- Plaster and Dressing
- Antiseptic Solution
- Sterile Gloves

CONTENT

Copper-releasing IUDs such as Cu T 380A can be removed/replaced after 12 years. Unless an IUD is being removed for a medical reason or at the client's request, a new IUD can be inserted immediately after removing the old, if the client so desires.

IUD removal is usually a routine, uncomplicated and painless procedure provided the provider is gentle and careful. For routine removals, especially if the client wants a replacement, it may be easier to remove the IUD during the menses.
To avoid breaking the strings, the provider should apply gently, steady traction and remove the IUD slowly. As with IUD insertion, to minimize the risk of infection with IUD removal, the same infection prevention practices must be followed.

Reasons for removal

- Client desires pregnancy
- Menopause, no need for contraception
- Client desires another method of contraception
- Life of IUD has expired
- Accidental pregnancy
- Client is not able/willing to tolerate side effects
- Dyspareunia (painful intercourse)
- Partial expulsion of the device
- Cervical perforation
- Uterine perforation

When to remove IUDs
Remove IUDs whenever a client insists on having it removed or when there are indications for removal. The best time to remove is during menses, because the cervix is slightly dilated, soft and removal is less uncomfortable.

Equipment and materials
The instruments and equipment for removal are the same as for insertion. In addition, an alligator forceps should be available. All instruments should be high-level disinfected (or sterilized).

Procedure for removal
- Prepare equipment and materials as for insertion, but include alligator forceps and retrieval hook.
- Explain the removal procedure to the client to ensure her cooperation and relaxation.
- Ensure that the client has emptied her bladder
- Place the client in the dorsal position with the legs flexed at the hip and knees
- With sterile-gloved hand, part the labia and gently pass a Cusco's speculum
- Visualise the cervix
- Clean the cervix and fornices with antiseptic solution
- Tell the client that you are going to remove the IUD.
- Ask her to take slow, deep breaths and relax. Inform her that there may be some cramping, which is normal.
- Grasp the IUD strings near the external os with artery forceps and apply gentle and steady traction to remove device.

Note: The device can usually be removed without difficulty and excessive force should not be applied.

- To avoid breaking the strings, apply steady, but gentle, traction and remove the IUD slowly
- If the strings break off, but the IUD is still visible, grasp the device with the forceps and remove it.
- Check that no part has broken off the device
- Show device to the client
- Clean the cervix with an antiseptic solution
- Apply a perineal pad

Post-removal instructions

- Explain to the client that slight vaginal spotting may continue for a few days
- If client wishes to use another method of contraception, counsel and/or initiate accordingly

Difficulty in the removal of IUDs

Trained family planning doctors should do the removal of IUDs. If traction, as described above, does not result in the removal of the device, or strings are not visible or strings are too short, proceed as follows:

- Probe the cervical canal with narrow artery forceps and attempt removal (if this fails, device is probably embedded in the endometrium)
- Explore the uterine cavity with alligator forceps, Sharman's curette, or retriever hook
- If this fails, dilate the cervix with small dilators and attempt removal again (cervical block may be necessary, or give appropriate analgesics)
- X-ray or scan with ultrasound to exclude partial or complete extrusion through the uterine wall. If this is found, explore the uterine cavity under general anesthesia and be prepared to remove a completely extruded **IUD** by laparoscopy or laparotomy.

SUMMARY

IUD removal is usually a routine, uncomplicated and painless procedure provided the provider is gentle and careful. For routine removals, especially if the client wants a replacement, it may be easier to remove the IUD during the menses.

To avoid breaking the strings, the provider should apply gently, steady traction and remove the IUD slowly. As with IUD insertion, to minimize the risk of infection with IUD removal, the same infection prevention practices must be followed.

EVALUATION

- List the essential steps in standard removal technique.
- List 5 key points for successful removal.
- Enumerate indications for removal.

Module Four - Session 5: Implant Removal Techniques

Time: 60 minutes

Learning Objectives

By the end of this session, the participants should be able to:

- Identify the equipment and materials for implant removal procedures
- Demonstrate the correct removal techniques with regards to asepsis, anaesthetic, length and location of incision, and removal procedure.
- List what to do when difficulties arise during removal.
- List appropriate steps for reinsertion.
- Demonstrate post-removal counselling techniques.
- Identify indication for removal.

Session Overview

- Equipment and materials for implant removal procedures
- Demonstration of the correct removal techniques with regards to asepsis, anaesthetic, length and location of incision, and removal procedure.
- What to do when difficulties arise during removal.
- Appropriate steps for reinsertion.
- Demonstration of post-removal counselling techniques.
- Identification of indications for removal.

Methods

- Lecture
- Discussion
- Demonstration and Return Demonstration

Materials

- Training Arm
- Video Films or Removal Techniques and VCR
- Removal Kit
- Overhead Projector
- Implant Capsules
- Plaster and Dressing
- Antiseptic Solution
- Sterile Gloves

CONTENT

Unlike insertion, removal of implants does not have to be timed to the menses and can be done at any time. Correct insertion – with the capsules placed subdermally – makes the removal procedure much easier.

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. Clinicians need to work gently, carefully and patiently when removing capsules. As with insertion, using the recommended practices for the prevention of infection is essential for minimizing the risk of disease transmission and infections following removal of the implants.
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).

Pre-removal Counselling

- 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 procedure for removal

Note: An easy removal depends on correct insertion. Routinely, removals take slightly longer than insertion - 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.

- Locate the capsules first with ungloved fingers. Most clinicians choose to mark the position of each capsule with a ballpoint or marking pen.
- Swab the clients arm with an antiseptic before the local anaesthetic is injected. The anaesthetic should be injected under the ends of the capsules nearest the incision site; anaesthetic applied over the capsules makes them difficult to feel (palpate)

Note: Generally, only one small incision will be needed through which the two capsules (Jadelle) 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 atypically placed). The first capsule to be removed should be one that is easiest to reach (i.e. closest to the surface or nearest the incision).

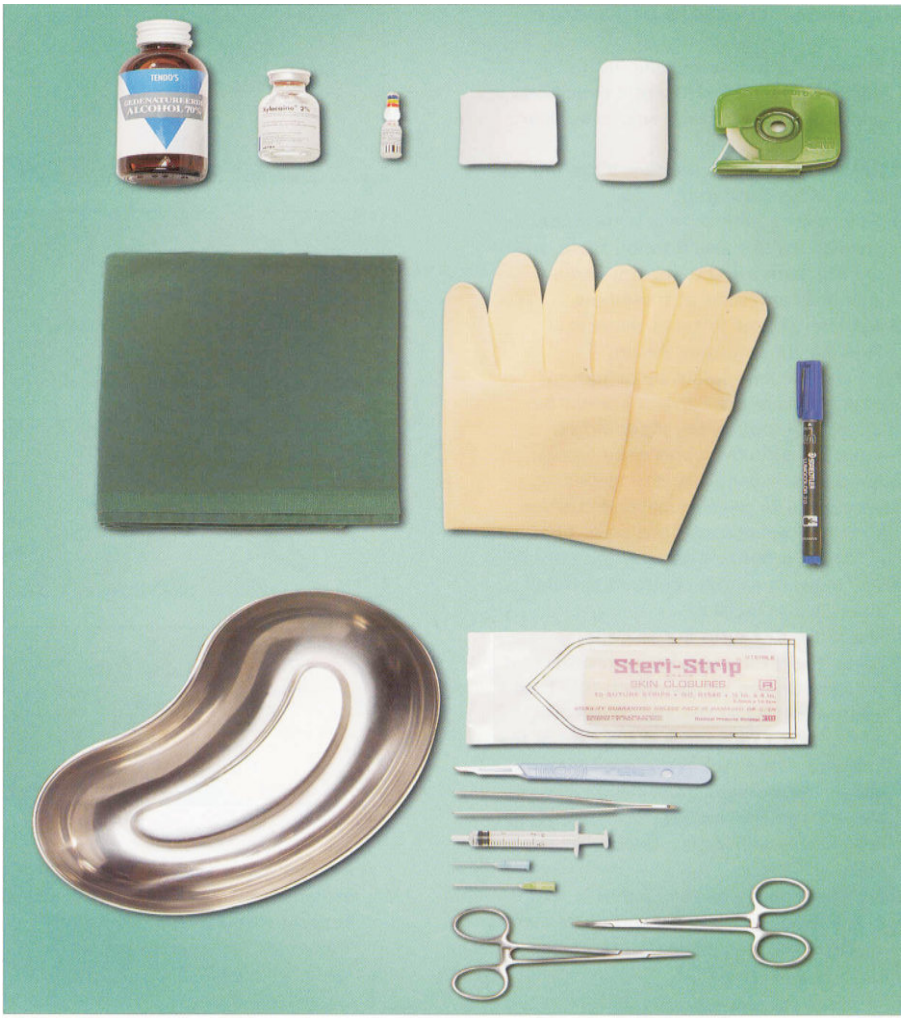
STEP-BY-STEP INSTRUCTIONS FOR REMOVAL

- Before starting the procedure, check to be certain the client is not allergic to local anaesthetics.
- Ask the client to 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 the client's hygiene is poor.
- Cover the procedure table (and arm support or side table, if used) with a clean, dry cloth
- Check that all instruments and other items are in excellent condition (e.g. the scalpel must be sharp and the forceps should have a very tight grasp) and have been sterilized (or high-level disinfected).

The following items are needed for each removal (Figure 4.5.1)**:**

- 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 in boiled or sterile water to remove the talc from gloves and one containing 0.5% chlorine solution for decontaminating removed capsules);
- Pairs of sterile (or high-level disinfected) surgical gloves;
- Antiseptic solution
- Local anaesthetic - 1:5 concentration without epinephrine (adrenaline)
- Syringe (2 or 5 ml) and 2.5 to 4cm (1 – 1 ½ inches) long needle (22 gauge)
- Scalpel with #11 blade
- Curved and straight forceps (mosquito and Crile)
- Implanon / Jadelle holding forceps
- Ordinary and straight forceps (mosquito and Crile)
- Ordinary band-aid or sterile gauze with surgical tape or plaster
- Sterile gauze and compresses
- Epinephrine (Adrenaline) readily available for emergency use in anaphylactic shock.

Figure 4.5.1: Basic items required for removal of implants

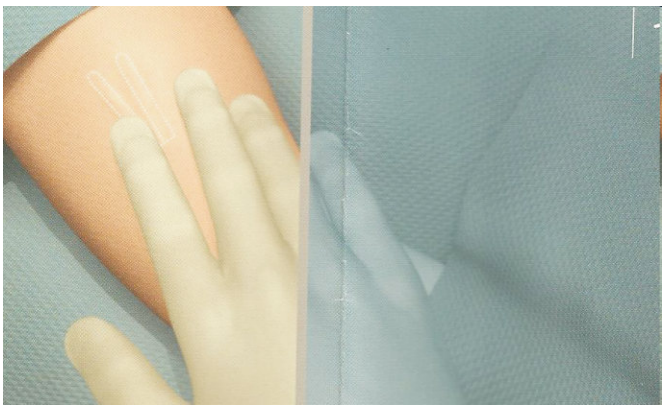


- Ask the client to lie on the table so that the arm with the capsules rests on the table or arm support. Her arm should be well supported and should be comfortable when extended straight or kept slightly bent, as the clinician prefers.

- Locate the two capsules Jadelle or Zarin, or one capsule of Implanon® by palpation.
- To gauge where to make the incision, palpate the end of the capsule(s) with bare (ungloved) fingers. (If it is difficult to find the capsules, refer to the client's file where the original capsule placement should have been recorded and a diagram may be available.)

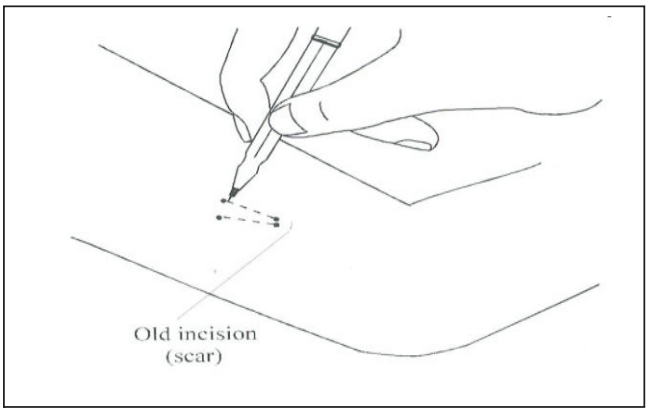
TIP: To make locating the capsules easier, moisten fingertips with a small amount of soapy water or antiseptic solution such as Betadine or Povidone. Doing this decreases friction between the clinician's fingertips and the client's skin and allows the capsules to be more easily felt.

Figure 4.5.2: Locating the Capsules by Palpation



- Confirm the position of each capsule by making a mark at both ends of the capsules (tip) using a ballpoint or marking pen.

Figure 4.1.3: Marking the Position of the Capsules

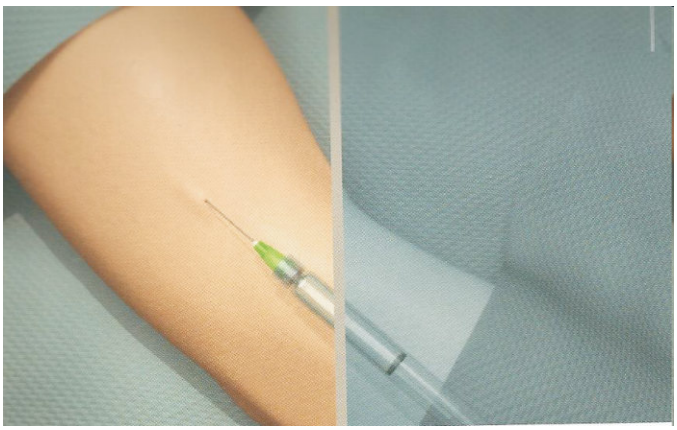


- Prepare an instrument tray and open the sterile instrument pack without touching the instruments and other items.
- Wash hands thoroughly with soap and water and dry them with a clean cloth.
- Put sterile or high-level disinfected gloves on both hands. (A separate pair of gloves must be worn for each 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.

- Arrange supplies and instruments so that they are easily accessible.
- Prepare 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 preparation is done with a gloved hand, care must be taken not to contaminate the glove by touching any unprepared 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.
- 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.
- Again, locate the two capsule(s) by palpating.
- After determining the absence of known allergies to the anaesthetic agent or related drugs, fill a syringe with about 3 ml of a local anaesthetic (1% Lignocaine without adrenaline).
- 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 anaesthetic to raise a small wheal (raised area).

Figure 4.5.4: Injecting local anaesthetic under the narrow V-end of the implants



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

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

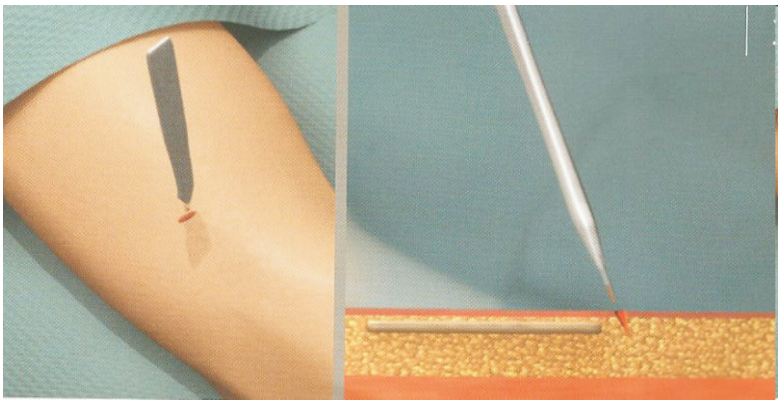
- Without removing the needle, slide the tip over and insert it under the next capsule (if Jadelle or Zarin implants).

Note: Never put anaesthetic over the capsules because the tissue swelling makes it difficult to palpate the capsules. If necessary, additional small amounts of anaesthetic 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 anaesthetic is working.

Note: To prevent local anaesthetic toxicity the total dose should not exceed 10ml (10 grams/litre) of a 1% local anaesthetic without adrenaline.

Figure 4.5.5: Making an incision



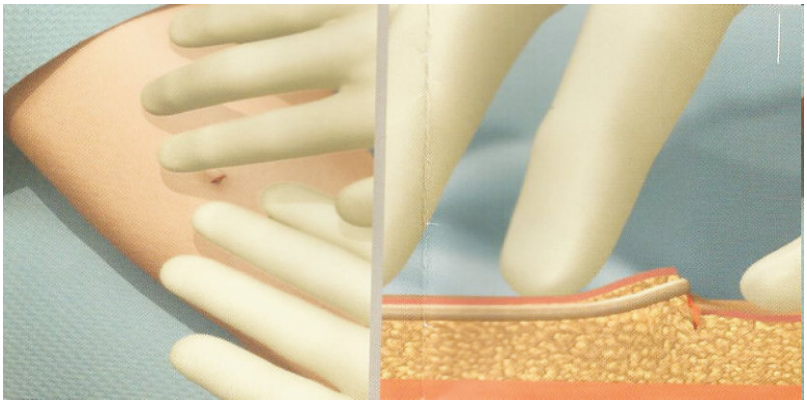
- Choose a point for the incision that is equidistant from the ends of all the capsules and which is close to and about 5 mm below the distal (toward the elbow) ends of the capsules.

- If appropriate, the removal incision may be made at the point of the previous insertion incision. Before selecting this site, however, make sure that neither of the capsule ends are under the old incision. (This avoids the possibility of cutting though the capsules)
- At the site chosen, make a small transverse incision of about 4 mm or less with a scalpel. Do not make a large 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 Insertion in this module).

- Begin by selecting the capsule closest to the surface or nearest the incision.
- 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.

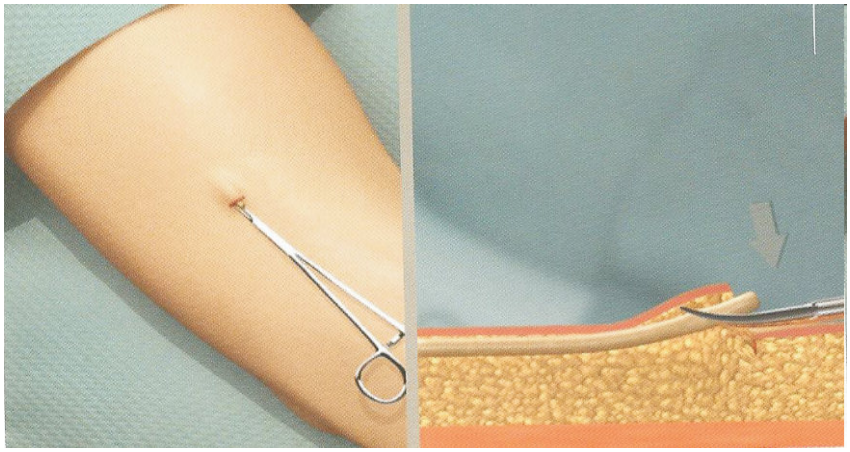
Figure 4.5.6: Pushing the implant with the fingers gently towards the incision



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.

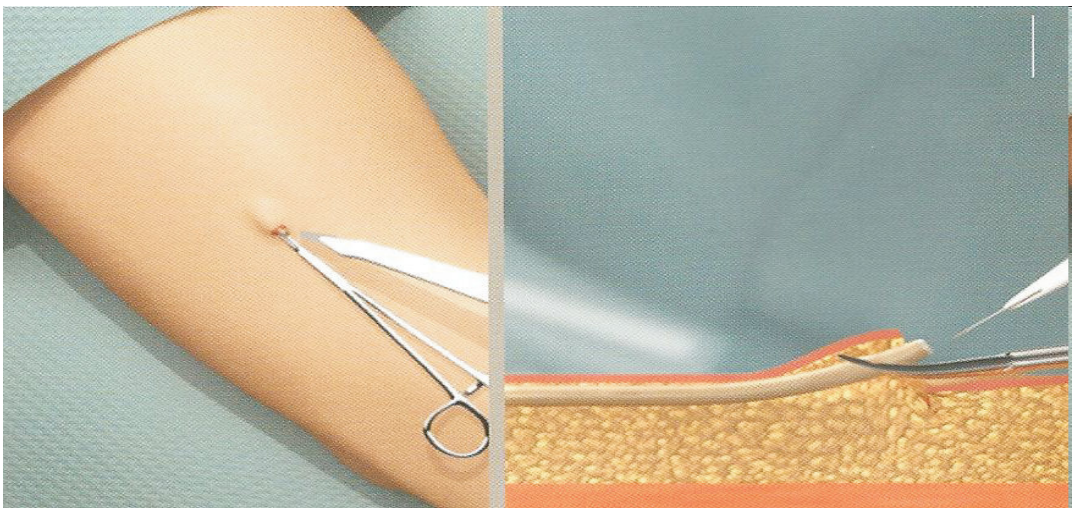
- Insert the curved forceps through the incision with the jaws pointed up toward the skin and advance until they are below the ends (tips) of the capsules nearest the elbow.
- Then open and close the forceps jaws (blunt dissection) to break up the scar tissue surrounding the tip of the capsule. Repeat until the tips of the two capsules are free (easily moveable)
- 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 10mm) and gently pull it into the incision

Figure 4.5.7: Inserting the curved mosquito forceps



- Clean off and open the fibrous tissue sheath surrounding the capsule by rubbing vigorously with sterile gauze to expose the tip of the capsule.

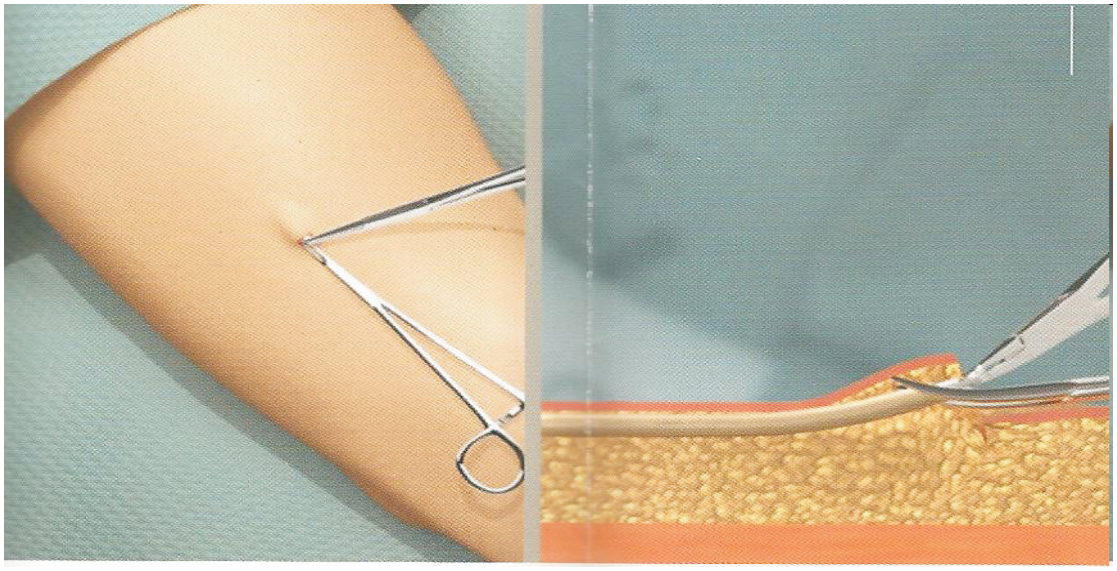
Figure 4.5.8: Opening the tissue capsule



- Alternatively, if rubbing the fibrous tissue sheath will not open it, the scalpel can be used). To avoid cutting the capsule, use the backside (non-sharp edge) of the scalpel

- Grasp the freed tip of the capsule with a second pair of forceps. Release the first forceps and slowly and gently remove the capsule with the second forceps.

Figure 4.5.9: Grasping the end of implant with the Crile forceps

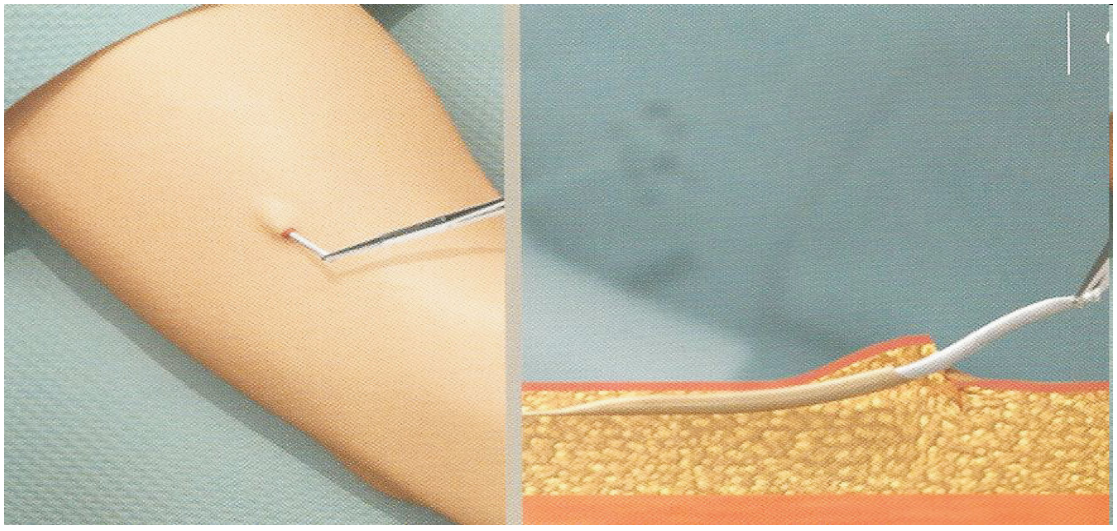


- Since tissue usually does not adhere to silicone rubber, the capsule should slide out easily. If for some reason the capsule does not come out easily, remove any remaining fibrous tissue from the capsule by gently rubbing with sterile gauze or scarping with the scalpel blade.

Note: As capsules are removed, place them in a small bowl containing 0.5% chlorine solution for decontamination prior to disposal. 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.*

- If additional anaesthetic is required, inject it only under the capsule so as not to obscure them.

Figure 4.5.10: Release the mosquito forceps and remove the implant gently



- Repeat using the same technique to remove the remaining capsule.
- It is important to show the client all capsules to reassure her.

Figure 5.4.11: Be sure that both implants (for Jadelle and Zarin and 1 implant for Implanon) are removed

REMOVING HARD-TO-RETRIEVE CAPSULES

- Occasionally, one or more of the capsules may be difficult to remove. For example, if 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 deeply (i.e. into the subcutaneous or fatty tissue).

- 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 elbow, push the capsule as close to the incision as possible.

- 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.

- Firmly grasp the capsule from below with the jaws of the curved forceps.

- Although 1 to 2 cm of the forceps is now 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 180^0 toward the client's shoulder and grasp the handle with the opposite hand.

Note: If the capsule does not become visible after flipping, twist the forceps 180^0 around its main axis. With gentle pulling, the tip of the capsule should then become visible in the incision on the opposite side of the forceps.

- 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 rubbing with gauze does not open the fibrous tissue sheath, the scalpel can be used.

- 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.

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

TIPS FOR DIFFICULT IMPLANT REMOVAL

When Capsules are not palpable

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 radio-opaque object to mark the original incision site, the capsules, which are also radio-opaque, 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 and 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.

PROCEDURE FOR SECOND INSERTIONS

- If the client wants to continue using 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.

- 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.

- 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 THE CAPSULES

*Covering the Incisio*n.

- 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 apply gauze soaked in slight iodine solution to the incision area.

- With the edges of the incision together, close with a band-aid, or surgical tape with sterile cotton. Sutures are not necessary and may increase scarring. Check for any bleeding.

Waste Disposal Decontamination

- Before removing gloves, gently place instruments into a container filled with a 0.5% chlorine solution for decontamination. Soak all items for 10 minutes, then rinse immediately with clean water to avoid discoloration or corrosion of metal items.

- 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.

- Immerse both gloved hands briefly in chlorine solution and then carefully removed gloves by turning inside out and place in the waste container.

- Wash hands thoroughly with soap and water

- All waste materials 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. Clients should be reassured that 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 and plaster in place for 48 hours and the band-aid 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 follow-up 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 SUCCESFUL REMOVAL

- 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 anaesthetic under the capsule ends nearest the original incision site. If the anaesthetic 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 long) should be necessary for removal of all the capsules.

- Remove first the capsule that is nearest the point of the incision or closest to the surface of the skin.

- Add incremental amounts of anaesthetic 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.

REASONS FOR REMOVING IMPLANTS

The indication for removal may be personal or medical. Providers may perceive implants as 3-5 years method, however clients need constant reassuring that the implant may be removed at any time and for any reason. One of the advantages of Implant is that when the implanted capsules are removed, the woman's fertility returns to normal almost immediately. If the woman wishes to have the implant removed, it is important that access to removal is readily available. Experience shows that in some instances, where the providers have been trained to do insertion only, they may be hesitant about doing removal thus

preventing easy access to removal for the client.

Indications for Removal

Medical Reasons

- Excessive bleeding
- Pregnancy
- Jaundice
- Seizure
- Migraine
- Severe headache
- Blurred vision
- Weight problems

Personal Reasons

- Planned pregnancy
- Client dissatisfaction (her reason to stop)
- At the end of 3-5 years depending on the type being used.

SUMMARY

Correct removal techniques involve paying proper attention to asepsis, adequate anaesthesia and appropriate location of the incision. The provider needs to work gently, carefully and patiently. Removal procedures take longer time than insertions. The removal procedure can be interrupted if difficulties are encountered and the client asked to return after 4-6 weeks for completion of the removal of remaining capsule(s). Clients should always be given instructions for wound care at home on discharge.

EVALUATION

- List the essential steps in standard removal technique.
- List 5 key points for successful removal.
- Enumerate indications for removal.

MODULE FIVE

MODEL AND CLINICAL PRACTICE

Module Five: Model and Clinical Practice

Time: 1 hour

Learning Objectives:

By the end of this session, participants should be able to:

- Explain the rationale for the use of models during IUD and implant training
- Discuss the "Client's Rights" during clinical training
- List the guidelines for clinical observation and practice and decorum in the clinical area
- Mention "Infection Prevention Reminders"
- Discuss the guidelines for the daily Post-practice sessions
- List the guidelines for completing the "Clinical Procedures Record Sheet"

Session Overview:

- Rationale for the use of models during IUD and implant training
- "Client's Rights" during clinical training
- Guidelines for clinical observation and practice, and decorum in the clinical area
- "Infection Prevention Reminders"
- Guidelines for the daily Post-practice sessions
- Guidelines for completing the "Clinical Procedures Record Sheet"

Methods

- Illustrated lecture
- Discussion
- Brainstorming

Materials

- Flip Chart and Stand
- Markers
- LCD Projector
- Lap top

CONTENT

This module includes guidance on the clinical practice for this training programme. Most of the participants' time will be spent on clinical practice. Since this is a competency-based course, the participants will practice IUD and implant insertion and removal skills on models first, observe these same procedures on clients and then perform them under supervision on clients.

Practice on Pelvic and Arm Models

A major component of humanistic training is the use of anatomic models, which simulates the human body, and other learning aids such as slide sets and videotapes. The effective use of models:

- Facilitates learning,
- Shortens training time, and
- Helps participants to correct mistakes in technique that could hurt the client.

Before a participant attempts a clinical procedure with a client, two learning activities should occur:

- The clinical trainer should demonstrate the required skills and client interactions several times using an anatomic model and appropriate audiovisual aids (e.g. slide sets or videotapes).

- While being supervised, the participant should practice the required skills and client interactions using the model and actual instruments in a simulated setting which is as similar as possible to the real situation.

The participants will practice using the Learning Guides for Clinical Skills in IUD and Implant Insertion and Removal Techniques on models; the trainer(s) will evaluate each participant's performance using the Observation Checklist. Once the participant passes the assessment on the model, she/he will be allowed to practice on clients. The final skills evaluation will be done while the participant is performing IUD and Implant Insertion and Removal Techniques on clients. The participants must be supervised by the trainers at all times during the clinical practice. The number of procedures each participant must perform on models or clients before achieving competency will vary according to the participant's skill and experience. Only when skill competency and some degree of skill proficiency have been demonstrated with models, however, should participants have their first contacts with clients.

Client's Rights during clinical training

Client safety and client satisfaction are the goals of this training in long-acting contraceptive services. Therefore, the client's rights of privacy and confidentiality are a part of clinical training.

The client's permission must be obtained before any participant observer assists with or performs any services. The client should understand that she has the right to refuse care from a participant (provider-in-training) without loss or postponement of services. If the client should refuse participant assisted or performed services, the trainer or other staff members should perform the procedure.

Clients who consent to participate in training should be informed in advance that they will receive care from a trainee under the direct supervision of a qualified trainer. The client should be informed about the role of each individual inside the service area, e.g., supervisors, trainers, participants, service providers.

When conducting counselling, performing a physical examination or giving services, an environment that protects the client's bodily privacy and confidentiality of speech must be created and maintained.

Communication between the participant and the trainer during feedback encounters or coaching must be discreet. Corrective feedback should be limited to situations that could harm or cause discomfort to the client.

The client's right to confidentiality must be protected. This may be challenging to maintain strictly during training situations when specific cases are used in learning exercises. However, such discussion should take place in private areas out of hearing of other staff and clients; no reference should be made to any client by her name. Hallways, corridors, waiting areas, and other public areas are not appropriate places for discussions of clients.

Guidelines for clinical observation and practice

The most important concerns during clinical observation/practice are ensuring the client's comfort and providing a safe, effective procedure. Therefore:

- The operating clinician (whether a trainer or a participant) should give a running commentary to the other participants throughout the procedure.

- If a participant performing a procedure wants the trainer to take over the procedure, he or she should make a straightforward request such as "I need help" or "Please, show me again how to do this".

- If a participant notices a complication that is unobserved by the operator, he or she has a responsibility to report the situation immediately to the trainer. This should be done in a way that does not alarm the client.

- If a complication arises during any procedure, the trainer is responsible for managing the situation and will complete the procedure.

- If the trainer wants to take the procedure from a participant, he or she will say something like "Let me help you with this step" or “Perhaps, I can show you an easier or better way to do this" or “The client is uncomfortable, so I'll finish. You can watch and do the next case.”

- The participants who are observing the procedure should not interfere with the work of the participant conducting the procedure.

- The participants who are observing should hold all questions and comments until after the procedure is completed and until they are not in the presence of the client.

- The participant performing the procedure should answer the client's questions.

- If the client becomes impatient, angry, anxious, or restless during the procedure and if the participant is unable to reassure her, the trainer should take over the procedure.

- If complications arise during the procedure, the trainer must be in charge. The trainer may choose to permit a participant to manage the complication, as a learning experience, but only under supervision.

- If a participant notices a problem or a break in sterile technique that was unobserved by the trainer, that participant is responsible for reporting the situation to the trainer immediately in a way that does not alarm the client.

Client-Provider Interaction Highlights

- When performing an IUD or implant insertion and removal procedures, it is important to remember the principles of effective client-provider interaction. Clients will be awake and will be concerned about the procedure and the amount of pain they may feel. By using gentle techniques, providers can avoid giving women more pain.

- The provider can do several things to minimize the client's tension and maximize her comfort, which will contribute to the safe and efficient performance of the procedure.
- Some clients like to be informed of each step of the procedure, while others prefer to be distracted. Soothing music or discussion of a topic of interest to the client might help. Some providers have placed a picture on the ceiling for the client to focus on. Ask the client what will help her to relax.

- Inform the client that she might feel some discomfort. Request that she tells you if she feels any discomfort or pain.
- Before, during, and after the procedure, be aware of the client's need for privacy and her concerns about modesty.

Infection Prevention Highlights during IUD and Implant Insertion and Removal procedures

Before the procedure:

- Insertion and removal of IUD or implants can be performed in an examination room or a special room. Wash hands thoroughly between clients, before putting gloves on.

During the procedure:

- Use instruments, gloves, and drapes that have been sterilized or high-level disinfected. Maintain asepsis.

After the procedure:

- While still wearing gloves, dispose of contaminated wastes (gauze, cotton, and other waste items) in a covered, leak-proof container of plastic bag.

- Ensure that instruments and reusable items are decontaminated in a 0.5% chlorine solution for 10 minutes immediately after use, while they are still in the procedure room.

- Ensure that the examination table, instrument stands, and other surfaces contaminated during the procedure are decontaminated by wiping with a cloth soaked in a 0.5% chlorine solution. If organic material remains after decontamination, wash with detergent and water. Decontamination and cleaning of the examination tables and couches between clients is important.

- Wash hands after removing gloves.

Clinical Observation

All participants will have the opportunity to observe procedures performed by the trainer and by other participants during the training programme. In addition to insertion and removal techniques, you will also observe, whenever possible, pre-procedure activities (such as client assessment) and post-procedure activities (such as giving instructions to the client). The goal is for you to have a comprehensive understanding of all the service-delivery steps.

During observation of cases, participants should follow along with the IUD or implant Clinical Skills Learning Guides as they observe. In addition to watching for the steps of insertion and or removal, also observe how the provider interacts with the client and what the provider does in terms of infection prevention practices.

Supervised Clinical Practice

Once the participants' skills have been evaluated as satisfactory on the models, they may insert IUDs or implant under the trainer's supervision. The participants should not perform an insertion on a client until the trainer has evaluated their skills on the model using the appropriate Implant Clinical Skills Learning Guide.

The following tips may help a participant with clinical practice:

- Depending on his/her prior clinical experience, a participant may begin by observing an IUD or implant insertion, assisting the trainer in performing an insertion, or performing an insertion with the trainer's guidance.

- The participant must exercise patience. The participant should realise that s/he is learning a new technique, and it will take repetitive performance on the model and on clients before s/he feels comfortable with the technique.

- The participant should start with model practice and continue model practice during the early portion of his/her training to help fine-tune the skills and help him/her correct problems he/she is having in clinical practice.

- During clinical training, the trainer is present to provide the participant with support and guidance. He/she should ask questions and seek help if needed, being careful not to cause the client any extra concern.

- After each practice session, all participants will have time to review and discuss the cases with the trainers and other observers. The trainer will provide the participants with coaching as needed during this post-practice session.

- When you and the trainer determine that a participant is ready, the trainer will evaluate his/her performance using the appropriate IUD or implant Clinical Skills Checklists.

Guidelines for conducting Post-practice Sessions

- At the post-practice meeting the trainers will provide an opportunity for self-assessment in relation to the focus for the day.
- The participants may use the Learning Guide to assess their own performance.
- The trainers will use the post-practice meeting to give feedback to the entire group, and to jointly develop problem-solving approaches for skills difficulties.
- During the post-practice meeting, the following questions will be used to review the day's

experience:

- What went well?
- What new learning needs did you have?
- What new skill(s) did you learn?
- What did not go well?
- What do you think would have helped to make the procedures go better?
- How could problems, which arose, have been avoided?
- What was done to solve the problem?
- How did the team members work together? How could they have worked more effectively?
- Are there steps that you want to review before the next clinical practice session?

- The feedback should highlight the positive aspects and address the mistakes.

Guidelines for completing Participant's Clinical Service Procedures Record Sheet

The participants' Clinical Service Record Sheet *(Appendix 5.1)* is to assist each participant to keep a track of all the procedures observed or performed during the training programme. These record sheets are not expected to replace the clinic Client Record Form that must be completed for each client by the participant.

SUMMARY

This module provides the information and guidelines as to how the model and clinical practice sessions of this training programme will be conducted so that IUDs and implants will be correctly placed and/or removed safely. The ultimate goal is to provide high quality IUD and implant services both during and after the training programme. The client's right to confidentiality must be protected. The priority concerns during clinical observation and practice are the client's comfort and safety and performing an effective procedure.

EVALUATION

- Why are models used during IUD and Implant training programmes?
- Mention the rights of the client during clinical training programme.
- Why must decorum be maintained in the clinical area during training?
- Mention four “infection prevention reminders” during clinical practice,

MODULE SIX
COUNSELLING FOR IUDS AND IMPLANTS

Session 1: Introduction to Counselling
Session 2: The Balanced Counselling Strategy Plus

Module Six - Session 1: Introduction to Counselling

Time: 1 hour

Learning Objectives:

By the end of this session, participants should be able to:

- Define Counselling
- State the objectives of counselling in Family Planning
- Discuss the qualities of a successful counselor
- Mention the types of counselling required for IUD and Implant services
- Discuss the concerns and perceptions of potential users of IUDs and Implants
- Explain the term "Informed Choice"
- Discuss the "Rights of the Client"

Session Overview

- Definition of Counselling
- Objectives of counselling in Family Planning
- Qualities of a successful counselor
- Types of counselling required for IUD and Implant services
- Concerns and perceptions of potential users of IUDs and Implants
- "Informed Choice"
- "Rights of the Client"

Methods

- Illustrated lecture
- Discussion
- Demonstration and Return Demonstration
- Role Play

Materials

- Flip chart and flip chart stand
- Markers
- LCD Projector
- Laptop

INTRODUCTION

What is Counselling?

Counselling refers to providing the client with information and support to allow her to make a decision regarding her immediate reproductive health needs, for example, by describing to the woman (and sometimes her partner as well) the contraceptive options available to her, the benefits and risks of the methods, and what side effects to expect.

Good counselling also encourages the client to ask questions about the method she selects, to return to the clinic if she has problems, and to feel free to switch methods if she is unhappy with the one initially chosen. Counselling plays an important role in increasing the satisfaction of users of long-acting family planning methods such as IUD and implants.

What are the objectives of Counselling?

The counselor's objectives should be to:

- provide complete, accurate information in terms the client can understand;
- identify and discuss any concerns or fears a client may have
- help the client choose the best family planning method for her and
- inform the client adequately about effectiveness, side effects, benefits, and risks on available methods.

It is also part of the counselor's job to ensure, particularly with clinic based methods such as Cu T 380A, Jadelle®, Zarin® and Implanon® and NXT™ (subdermal implants), that the woman can stop using a method for medical or personal reasons and that she has access to removal.

What are the qualities of a successful counselor?

A good counselor identifies with the perceptions of the client and takes the extra few minutes required to put the client at ease and allow her beliefs and feelings about contraceptive methods to emerge. Producing such an atmosphere will be cost-effective in the long run. For example, when counselling is done effectively, women will be more satisfied with their choices and less likely to discontinue use after a short period of time or because of unexpected bleeding disturbances.

A Good Counselor has:

- A sensitivity that earns the trust of the client
- A good understanding of all available family planning methods, not only IUDs and subdermal implants.
- An understanding of the cultural and psychological factors that affect a woman's or a couple's decision to use IUD or subdermal implants or other family planning methods
- A non-judgmental approach, treating the client with respect and kindness
- A way of encouraging clients to ask questions
- An ability to listen
- The ability to recognize when he or she cannot sufficiently help a client and to refer the client to other professionals
- An appreciation of non-verbal communication (body language)

Sound knowledge and good communication skills are essential if the counselor is to discuss IUDs or subdermal implants (and other methods) appropriately and to reduce the number of women who discontinue the method because of ignorance or unnecessary anxiety. The counselor must recognize the potential importance of views of other members of the family and should help the client deal with them.

The counselor should present relevant information clearly and concisely. Overly technical information and academic language and jargon should be avoided. Questions, particularly about the negative aspects of the method, should be answered honestly.

What types of counselling are required?

Cu T 380A and subdermal implant users will need three stages of counselling. The information should preferably come from more than one source, and service providers need to work as team in counselling.

Pre Insertion Counselling

Given prior to a decision to use IUD and subdermal Implants

- Discuss the woman's (or couple's) fertility intentions.
- Then provide information on all available contraceptive methods,
- Present an overview of Cu T 380A and subdermal implants:
  - facts,
  - reversibility,
  - advantages and disadvantages including side-effects (particularly those related to menstrual irregularities),
  - the timing of insertion,
  - the contraceptive to use until insertion and
  - the freedom of the client to discontinue the method whenever desired.

Post-Insertion Counselling

Though usually given immediately after the insertion of the IUD or implant, some elements of post-insertion counselling should be given earlier and reinforced at this time (e.g. post-insertion care). Information on a follow-up schedule and indications for a quick return to the clinic must be provided.

Follow-up Counselling

Information given during post-insertion Counselling should be reinforced at each visit. Counselors need to listen attentively and be prepared to answer questions on the problems the patient has encountered. Answering questions helps a client to cope with any problem or side effects. Again, counselors should reassure clients that removal is available on demand.

Concerns and Perceptions of Potential Users of IUDs and Implants

- The device or capsule can travel in the body
- Belief that insertion/removal is a major surgical procedure
- Returning to the clinic (distance and time) for insertion and removal at proper time
- Inconvenience (time and cost) of follow-up visits
- With foreign object in womb or the arm, soul cannot leave body after death
- Family/friends will notice and women will have the stigma of using family planning
- Religious reasons
- Never knowing when spotting will occur
- For Implants, sites can become unattractive
- No way to hide use of method from husband
- Rumours that women are being used as guinea pigs
- Chance of losing fertility, sex drive etc
- Fear that the device or capsules will cause weakness and/or ill health to self and/or husband
- Traditional dislike for surgical procedures
- For subdermal implants, amenorrhoea causes a permanent build-up of blood in uterus that must be “drained” periodically, or illness will result

What does “Informed Choice” mean?

When a person freely makes a thought-out decision based on accurate, useful information, this is an informed choice. One important purpose of family planning counselling is to help the client make informed choices about reproductive health and family planning.

"Informed" means that:

Clients have the clear, accurate, and specific information they need to make their own reproductive choices including a choice among family planning methods. Good quality family planning programs can explain each family planning method as needed, without information overload and can help clients use each method effectively and safely.

Clients understand their own needs because they have thought about their own situations. Through person-to-person discussions and counselling and through mass media messages, good quality family planning programmes help clients match family planning methods with their needs.

"Choice" means that:'

Clients have a range of family planning methods to choose from. Good quality family planning services offer different methods to suit people's differing needs – not just 1 or 2 methods. If programs cannot provide a method or service, they refer clients somewhere else for that method.

Clients make their own decisions. Family planning providers help clients think through their decisions, but they do not pressure clients to make a certain choice or to use a certain method.

RIGHTS OF THE CLIENT

The health provider must endeavour to respect the rights of the client seeking family planning and reproductive health services by providing them with relevant information concerning their reproductive health. Such rights include:

1. **Information**
   Clients have a right to timely, accurate, and appropriate information related to their family planning/reproductive health and HIV needs such as reasons for referral to another health facility, and the type of reproductive health or HIV services the client is expected to receive at the referred health facility.

2. **Access to Services**
   The right of the client includes sharing the likely financial implication of referral as applicable, clients concern, possible constraints such as proximity, discrimination/ stigmatization, sexual orientation and possible general bias including religion.

3. **Informed Choice**
   Guidance to client's informed choice based upon access to and full understanding of all necessary information for the client's perspective. This should result in a voluntary and informed decision by the client.

4. **Safe Services**
   Client deserves assurances for safe services and skilled health providers at the receiving health care facility.

5. **Privacy and Confidentiality**

   Client must be assured that privacy and confidentiality will be maintained at the facility.

6. Dignity, comfort and expression of opinion

The client must be treated with respect and her opinion must be considered. The client also has the right to continuity of services and supplies, follow-up and referral.

SUMMARY

Counselling provides clients with information that would help her make informed choice. A good counselor is sensitive to the clients' needs and is ready to address user concerns regarding future reproductive goals, choice of contraceptive method and adverse effect of the chosen method.

EVALUATION

- What is counselling?
- Why is counselling important?
- What types of counselling are mandatory when providing IUD and implant services?

Module Six - Session 2: The Balanced Counselling Strategy Plus

Time: 1 hour

Learning Objectives:

By the end of this session, participants should be able to:

- Define the Balanced Counselling Strategy Plus
- State the objectives of the Balanced Counselling Strategy Plus
- Discuss the tools and job aids necessary for offering Balanced Counselling Strategy Plus
- Discuss the steps in the Balanced Strategy Plus
- Effectively counsel family planning clients using the steps, tools and job-aids in the Balanced Strategy Plus

Session Overview

- Definition of the Balanced Counselling Strategy Plus
- Objectives of the Balanced Counselling Strategy Plus
- Tools and job aids necessary for offering Balanced Counselling Strategy Plus
- Steps in the Balanced Strategy Plus
- Demonstration of counselling family planning clients using the steps, tools and job-aids in the Balanced Strategy Plus

Methods

- Illustrated lecture
- Discussion
- Demonstration and Return Demonstration
- Role Play

Materials

- Flip chart and flip chart stand
- Markers
- LCD Projector
- Laptop
- Tools and Job Aids of BCS+

CONTENT

What is Balanced Counselling Strategy (BCS)?

The Balanced Counselling Strategy (BCS) is a practical, interactive, and client-friendly strategy for improving counselling within family planning consultations. This strategy, tested and refined in several countries, comprises a series of steps to determine the contraceptive method that best suits the client according to her/his preferences and needs. This strategy improves the quality of the provider's counselling and allows the client to take ownership of the decision.

The BCS uses three key job aids for counselling clients about family planning:

- An algorithm to guide the provider through the Counselling process,
- A set of Counselling cards for contraceptive methods, and
- Corresponding brochures for each method

The BCS Algorithm

This summarizes the 19 steps recommended to implement the BCS during a family planning consultation. The steps are organized under four stages of the consultation: pre-choice needs assessment; method choice; post-choice actions; and STI/HIV prevention, risk assessment, and counselling and testing. During each stage of the consultation, the provider is given step-by step guidance on how to use the BCS+ job aids. Depending on the client's response to the issues discussed, the algorithm outlines which action to take.

The Counselling Cards

These are the cards that a provider uses during a counselling session. There are 19 counselling cards.

- The first card contains 6 questions that the service provider asks to rule out whether a client is pregnant.

- There are 14 method-specific cards that contain information about each family planning method. Each method card has an illustration of the contraceptive method on the front side of the card. The back of the card contains a list 5 to 7 key features of the method and describes the method's effectiveness. These cards are used to first exclude those methods that are inappropriate for the client's reproductive intentions and then to narrow down the choice to reach a final decision.

- Four counselling cards provide information on STI/HIV transmission and prevention, risk assessment, dual protection, and HIV C&T that are used during the fourth stage of the consultation.

Method Brochures

These brochures on each of the 14 contraceptive methods are designed to help the client better understand the method chosen. The provider gives the client the brochure of the selected method and a brochure with information on condoms to take home. Proverbs should encourage low-literate clients to take the brochure home so that their partner or other trusted friend can review the brochure with them again.

What is Balanced Counselling Strategy Plus (BCS+)?

The Balanced Counselling Strategy Plus (BCS+) integrates counselling on STI/HIV transmission and prevention along with family planning by helping the provider to conduct an STI/HIV risk assessment, discuss dual protection, and discuss and offer the client opportunities for HIV C&T.

The BCS+ is divided into four counselling stages. Each stage contains a sequence of steps to follow. The BCS+ assumes that the motive of a client's visit is for family planning but serves to also offer the client STI/HIV services in the clinic or through referral. The BCS+ process can be summarized as a decision-making algorithm. The summary of the four counselling stages is:

Pre-Choice Stage

- During this stage, the provider creates the conditions that help a client select a family planning method. The provider:
  - cordially greets the client
  - Emphasizes to the client that, during the consultation, other reproductive health issues such as STIs, including HIV, will be addressed depending on her/his individual circumstance.
  - Rules out pregnancy using the counselling card with the checklist of questions
  - If the client is not pregnant, displays all the method cards and asks the four questions described in the algorithm.
  - Sets aside the cards of the methods that are not appropriate for the client as the client responds to each question (setting aside these cards helps to avoid giving information on methods that are not relevant to the client's needs).

- If pregnancy cannot be ruled out, the provider skips to steps 12 to 19 to discuss STI/HIV transmission and prevention, risk assessment, dual protection and HIV C&T. Then the client is given a back-up method, such as condoms, and asked to return when she has her menstruation.

Method Choice Stage

During this stage, the provider offers more extensive information about the methods that have not been set aside, including their effectiveness. This helps the client select a method suited to his/her reproductive needs. Following the steps in the BCS+ algorithm, the provider continues to narrow down the number of counselling method cards until a method is chosen.

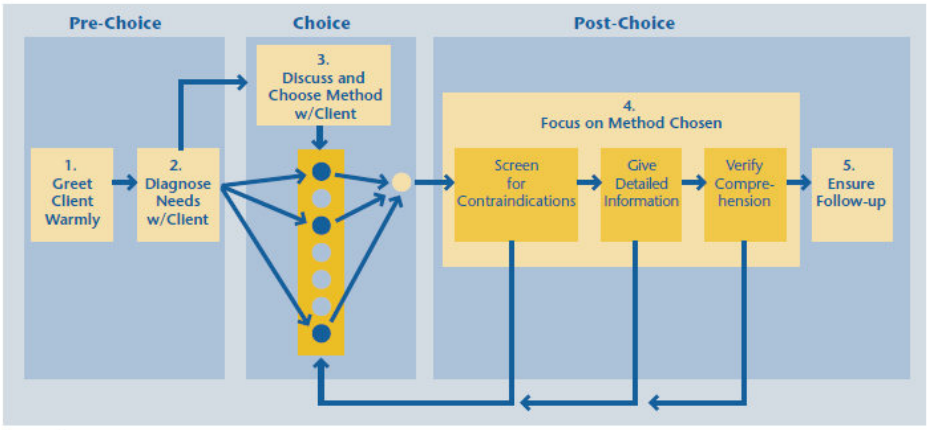
Post-Choice Stage

During this stage, the provider uses the method brochure to give the client complete information about the method that has been chosen. If the client has conditions where the method is not advised or is not satisfied with the method, the provider returns to the Method Choice Stage to help the client select another method. The provider also encourages the client to involve their partner(s) in decisions about contraception, either through discussion or visit to the clinic.

STI/HIV Prevention, Risk Assessment, and Counselling and Testing Stage

During this stage, the provider uses the four counselling cards to discuss STI/HIV transmission and prevention, conduct a risk assessment, define dual protection, and discuss and offer the client opportunities for HIV C&T. If the client is willing to be tested, the provider encourages the client to disclose their STI/HIV status to their partner(s), and lets the client know both the benefits and risks of disclosure. The provider gives follow-up instructions, the method brochure and condom brochure, emphasizing dual protection.

Figure 6.2.1: Balanced Counselling Model with specific tasks for providers



Source: León et al. 2003b.

Algorithm for Using the Balanced Counseling Strategy

Pre-Choice

① Establish and maintain a warm, cordial relationship. Listen for the client's contraceptive needs.

② Rule out pregnancy using the counseling card with 6 questions.

If client answers:	Then:
"Yes" to any of the questions and she is free of signs and symptoms of pregnancy	1) Pregnancy is unlikely. 2) Continue to Step 3.
"No" to all of the questions	1) Pregnancy cannot be ruled out. 2) Give client a pregnancy test if available. 3) Ask her to return when she has her menstrual bleeding. 4) Provide her with a back-up method, such as condoms, to use until then. 5) End the session.

③ Display all of the counseling cards. If the client wants a particular method, go to Step 7.

④ Ask all of the following questions. Set aside counseling cards based on the client's responses.

a) Do you wish to have children in the future?
If "Yes," set aside vasectomy and tubal ligation cards. Explain why.
If "No," keep all cards and continue.

b) Are you breastfeeding an infant less than 6 months old?
If "Yes," set aside the combined oral contraceptives (the Pill) and combined injectable.
If "No," or she has begun her monthly bleeding again, set aside the LAM card. Explain why.

c) Does your partner support you in family planning?
If "Yes," continue with the next question.
If "No," set aside the following cards: male condom, female condom, Standard Days Method, and TwoDay Method. Explain why.

d) Are there any methods that you do not want to use or have not tolerated in the past?
If "Yes," set aside the cards the client does not want.
If "No," keep the rest of the cards.

Method Choice

⑤ Give information on the methods that have not been set aside. Indicate their effectiveness.
a) Arrange the remaining cards in order of effectiveness (number on back of each card).
b) In order of effectiveness (lowest number to highest), read the 5 to 7 features of each method not set aside.

⑥ Ask the client to choose the method that is most convenient for her/him.

⑦ Using the brochure, determine if the client has any condition for which the method is not advised.
a) Together with the client review section under "Method not advised if you" in the brochure of the method chosen.
b) If the method is not advisable for the client, ask the client to select another method from the cards that remain. Repeat the process from Step 5 (Step 4 if client already had the method in mind).

Post-Choice

⑧ Inform the client about the method chosen using the brochure of the method as a counseling tool.

⑨ Determine the client's comprehension and reinforce key information.

⑩ Make sure the client has made a definite decision. Give her/him the method chosen and/or a referral and back-up method, depending on the method selected.

⑪ Complete the counseling session. Invite the client to return anytime. Thank her/him for the visit. End the session.

Steps of the Balanced Counselling Strategy Plus

Pre-Choice Stage

During this stage, the provider creates the necessary conditions to help the client select a method.

Step 1. Establish and maintain a warm, cordial relationship. Listen to the client's contraceptive needs.

- Establish a formal but friendly manner
- Call the client by her/his name
- Demonstrate interest in what the client tells you
- Establish eye contact with the client
- Listen to and answer her/his questions
- Show support and understanding without judgment
- Ask questions to encourage participation in the discussion
- Ask whether the client would like a family planning method. If so rule out pregnancy as described in Step 2.

Step 2. Rule out pregnancy using the pregnancy using the pregnancy checklist card with 6 questions.

Pregnancy is a contraindication to the use of most family planning methods, except barrier methods such as condoms. It is important to rule out the possibility of the client being pregnant, which can be done by asking the 6 questions on the pregnancy checklist card.

Checklist to be reasonably sure a woman is not pregnant:

- Did you have a baby less than six months ago? If so are you fully or nearly fully breastfeeding? Have you had no monthly menstrual bleeding since giving birth?
- Have you abstained from unprotected sex since your last menstrual bleeding or delivery?
- Have you given birth during the last four weeks?
- Did your last menstrual bleeding start within the past 7 days (or 12 days if you plan to use an intrauterine device (IUD)?
- Have you had a miscarriage or abortion in the last 7 days?
- Have you been using a reliable contraceptive method consistently and correctly?

Rule out pregnancy using the table below:

If the client answers:	**Then:**
"Yes" to any of the questions and is free of symptoms and signs of pregnancy	1) Pregnancy is unlikely 2) Continue to ***Step 3***
"No"to all of the questions	1. Pregnancy cannot be ruled out 2. Give the client a pregnancy test, if available, or refer her to the antenatal clinic. 3. Ask her to return when she has her next menstrual bleeding. 4. Provide her with a back -up method, such as condom to use until then. 5. Go to ***Steps 12 to 19***

Step 3. Display all of the method cards. Determine whether the client wants a particular method.

1. Display all the BCS method cards on a desk or table, grouped by method type (temporary, fertility awareness, permanent).
2. Each card has information about a different family planning method.
3. Ask whether the client has a particular method in mind.

If the client:	**Do this:**
Says "No"	Continue to ***Step 4.***
Says "Yes"	1) Ask what the client knows about the method. 2) If the information is correct, go to ***Step 7.***
▪ Gives incomplete information about the method s/he has chosen **-Or-** ▪ Does not know other alternatives that might be more convenient	1) Correct any misinformation. 2) If necessary, go to ***Step 4*** to help the client choose a method.

Step 4. Ask all of the following questions. Set aside cards based on the client's responses.

1. Using the display of method cards, begin the process by saying something like, "Now we are going to discuss your contraceptive needs. We will narrow down the number of methods that might be best for you. Then I will discuss the features of each method with you. This will help us to find the right method for your needs."

2. Ask the 4 questions below. Based on the client's responses, set aside the cards of methods that do not suit her/his needs.

If:	**Do this:**
"Yes"	1) Set aside the vasectomy and tubal ligation cards. Explain that sterilization is permanent and not suitable for someone who thinks s/he might want to have another child.
"No"	Keep all cards and continue.

b) Are you breastfeeding an infant less than 6 months old?

If:	**Do this:**
"Yes"	1) Set aside the combined oral contraceptive (the Pill) and combined injectable contraceptive (CIC) cards. 2) Explain that the hormones in these methods affect breastfeeding.
"No"	1) Set aside Lactational Amenorrhoea Method (LAM) card. 2) Explain that LAM is not suitable for women who are having menstrual bleeding again.

c) Does your partner support you in family planning?

If:	Do this:
"Yes"	Continue with the next question.
"No"	1) Set aside the following cards: Standard Day Method^{R} and Two Day^{R} Method 2) Explain that these require partner cooperation. 3) Invite the client to bring her/his partner to a Counselling session to discuss family planning with a provider. 4) Point out that male and female condoms als o require partner cooperation but they are important for protecting against STIs, including 5) Continue with the next question.

d) Are there any methods that you do not want to use or have not tolerated in the past?

If:	Do this:
"Yes"	1) Ask which meth ods s/he used and her/his experience with each. 2) Set aside the cards of the methods the client does not want.
"No"	Keep the rest of the cards.
The client has eliminated a method because of rumours or false information.	1) Provide the correct information. 2) Do not set aside the card of that method.

3. If certain methods, such as the IUD, implants, tubal ligation, or vasectomy, are never offered at your health care facility, still talk to the client about these methods.

Method Choice Stage

Step 5: Give information on the methods that have not been set aside and indicate their effectiveness.

1. Arrange the remaining method cards that have been set aside on your desk or table according to their level or effectiveness.

2. Display them with the lowest numbers first and the highest numbers last. *(The number is on the bottom left-hand side of the back of the card. This number indicates the effectiveness of the method.)*

3. Explain the effectiveness of the methods. Effectiveness is measured in number of pregnancies among 100 women in the first year of use. The lower number means fewer women get pregnant using the method.

4. Begin with the card with the lowest number. Read the 5 to 7 key features of each method on the cards displayed. You may also ask the client to read these attributes her/himself.

5. Explain that the condom (male and female) is the only method that provides dual protection against pregnancy and STIs, including HIV. Emphasize the following:

   a) Male and female condoms significantly reduce the risk of infection with STIs, including HIV, when used correctly and consistently with every act of sex.

   b) When used consistently and correctly, condom use prevents 80 percent to 95 percent of HIV transmission that would have occurred without condoms.

   c) Condoms reduce the risk of becoming infected with many STIs when used consistently and correctly, they:

      - Protect best against the spread of STIs by discharge, such as HIV, Gonorrhea, and Chlamydia.

      - Also protect against spread of STIs from skin-to-skin contact, such as herpes and human papilloma virus.

Step 6. Ask the client to choose the method that is most convenient for her/him.

1. Ask the client whether s/he has questions or comments about each method discussed. Respond to any questions. Resolve any doubts before proceeding.

2. Ask the client to choose a method that is most convenient for her/him.

3. If the client asks that you choose the method, explain that s/he is the only person who knows her/his needs. You may give recommendations about a method, but allow the client to make the final choice.

4. Once the client selects a method, **do not** take the remaining cards of the table. You may need to return to them if the method chosen is not advised or the client changes her/his mind.

5. If the client does not like any of the methods discussed or cannot make up her/his mind, give the client a back-up method, such as condoms, to use until s/he decides on a method of choice. Condoms can provide dual protection against pregnancy and STIs until the client has another or additional method. Go to Step 12.

Step 7. Using the method-specific brochure, determine whether the client has any conditions for which the method is not advised.

1. Select the BCS+ method-specific brochure corresponding to the method chosen by the client.

2. Together with the client, review the section entitled, “Method not advised if you…” ín the method brochure. This lists conditions when the method is not advised.

For example. For IUD: Method NOT advised if you: Are pregnant or think you might be pregnant. Have unusual vaginal bleeding. Have any genital or pelvic infections. Have AIDS and are NOT taking antiretroviral (ARV) medicine or are not well clinically. Have an STI or are at very high risk of having an STI.

3. Using simple, clear language, ask probing questions to make sure that the client **does not** have any conditions for which the method is not advised.

4. Based on the client's response, decide whether to provide the method or return to a previous step.

If the client:	**Do this:**
Has no conditions	Go to Step 8
Has any condition	1) Explain the need to choose another method. 2) Return to **Step 5**
Has any condition and reached this step from Step 3 (already had the method in mind)	1) Explain the need to choose another method. 2) Return to **Step 4**.

Post-Choice Stage

Step 8. Discuss the method chosen with the client using the method brochure as a Counselling tool.

1. Use the method brochure as a counselling tool to review all the information about the method chosen by the client. Begin by saying something like, "Mrs./Mr. (name), this brochure is for you to take home. Before you go, I would like to review the information with you."

2. Using clear, simple language, review the information about the method presented in the brochure:

   - General information (This is the same information as on ach BCS+ method card).
   - How the method works
   - Important facts about the method
   - When the method is not advised
   - Side effects
   - Health benefits
   - How to use
   - Follow-up (if applicable)
   - When to return to the health care facility

3. Give the client the brochure. Encourage her/him to review the brochure again at home and when s/he needs to remember anything about the method.

4. If the client selects a method not available on site, then:
   a) Still give client the brochure of the method chosen.
   b) Refer the client to a facility or commercial outlet where s/he can obtain the method.
   c) Provide client with an alternative, suitable method until s/he can obtain the choice.

5. If the client selects a method that is temporarily unavailable (out of stock), then:
   a) Give the client a brochure of the method chosen.
   b) Refer the client to a facility or commercial outlet where s/he can obtain the method.
   c) Provide client with a back-up method until s/he can obtain the method of choice.
   d) Ask the client to return when the method is in stock at your health care facility.

Step 9. Determine the client's comprehension and reinforce key information.

1. Make sure the client fully understands all aspects of the method s/he has chosen. Comprehension is key to healthy, effective use of the method.
2. Validate comprehension by asking the client to answer the following questions in her/his own words. (S/he may refer to the brochure.)

    - How do you use the method you have chosen?
    - What side effects might you experience with the method?
    - Can the method protect you against getting an STI, including HIV?
    - What are the signs indicating when you should return to the health care facility?

3. Assure the client that is s/he cannot remember all the details. Make sure the client can find the information in the brochure. (Note: If the client cannot read or has very low literacy skills, ask the client to identify a person at home who can read the information on the method chosen.

4. Ask whether the client has any questions. Reinforce the basic information on the method chosen.

Step 10. Make sure the client has made a definite decision: Give her/him the method chosen and/or a referral and back-up method, depending on the method selected.

1. Ask the client whether her/his choice is a definite one. Make sure s/he is happy with the choice of method.

If the client is:	**Do this:**
Happy with the method chosen	1) Give her/him the method and brochure 2) If IUD, implant, tubal ligation, or vasectomy is chosen and not available on site, give a referral for the procedure. 3) If the client cannot immediately use the chosen me thod, provide a back -up method (e.g., condoms). Give the BCS+ brochure on condoms. 4) Suggest that s/he may also abstain from sex until s/he obtains the method of choice.
Not happy with the method chosen and wishes to consider other options.	1) Assure the clien t that it is fine to change her/his mind. The client has a right to informed choice. 2) Return to **Step 5.**

2. Do not let the client leave empty-handed. If a method is not available, make sure that the client has a back-up method (e.g., condoms), a referral, and the BCS+ brochure on condoms.

3. Give the client his/her brochure.

Step 11. Encourage the client to involve partner(s) in decisions about/practice of contraception through discussion or a visit to the clinic.

1. Encourage the client to discuss her/his contraceptive method with their partner.

2. Mention that this can help them in the following manner:

    - Partner can remind you of the time to take your method, if taking a method a method regularly, and follow-up dates.
    - You can negotiate condom use to prevent STI, including HIV.
    - You can discuss your plans to have children, whether you are HIV positive or negative.
    - You can let him know that the prevention of mother-to-child transmission (PMTCT) of HIV during pregnancy can reduce transmission to babies.
    - He/she can support you if you need wellness and HIV services (antiretroviral therapy [ART]).

STI/HIV Prevention, Risk Assessment, and Counselling and Testing Stage.

Use the four Counselling cards to discuss STI/HIV transmission and prevention, risk assessment, dual protection, and HIV C&T. During the discussion, emphasize that prevention, early detection, and prompt management of STIs, including HIV, are beneficial to the client, her/his partner and family, and the community at large.

For further details on this section, please see: Raney Laura., Saiqa Mullick., Wilson Liambila., Mantshi Menziwa., Doctor Khoza., and Ian Askew . (2008). Balanced Counselling Strategy Plus User's Guide, part of The Balanced Counselling Strategy Plus: A Toolkit for Family Planning Service Providers Working in High STI/HIV Prevalence Settings. Mullick et al., Washinton DC: Population Council. ***OR***

"The Balanced Counselling Strategy Plus: A Toolkit for Family Planning Service Providers" published by USAID Strengthening Private Sector Family Planning/RH Services Project, Lagos, Nigeria.

SUMMARY

The Balanced Counselling Strategy Plus (BCS+) is a practical, interactive, and client-friendly tool for improving counselling within family planning consultations. The strategy improves the quality of the provider's counselling and allows the client to take ownership of the decision. The BCS has proved to be an effective tool that assists family planning providers to improve the quality of their care. The approach is practical, low cost, and easy to adapt to local contexts.

EVALUATION

- Mention the job aids of the BCS+
- List the four Counselling stages of the BCS+
- Why is important to give the BCS+ Method Brochure to the client to take home?

MODULE SEVEN

PROBLEM MANAGEMENT/INFORMATION AND SUPPORT DURING IUD AND IMPLANT USE

Session 1: Problem Management during IUD Use.
Session 2: Problem Management during Implant Use

Module Seven – Session 1: Problem Management during use of Copper bearing IUDs

Time: 1 hour

Learning Objectives:

By the end of this session, participants should be able to:

- List the common side effects, the occasional side effects and the warning signs requiring prompt medical attention in IUD users.
- Indicate what action should be taken medically for each side effect.
- Demonstrate through case studies and role plays ways of handling client concerns about side effects of IUDs
- Demonstrate counselling clients on side effects of IUDs in clear everyday language

Session Overview:

- Common side effects, the occasional side effects and the warning signs requiring prompt medical attention in IUD users.
- Action should be taken medically for each side effect.
- Demonstration of ways of handling client concerns about side effects of IUDs (through case studies and role plays)
- Demonstration of counselling clients on side effects of IUDs in clear everyday language

Methods:

- Brainstorming
- Discussion
- Illustrated Lecture
- Small group discussion
- Case Studies
- Role Play

Materials:

- Flip chart and Stand
- Markers
- Lap top
- LCD Projector

CONTENT

Most side effects and other health problems associated with the use of IUDs are not serious. Changes in the menstrual in the menstrual pattern, especially some increase in the amount and duration of the menstrual bleeding, are the most common adverse side effects. In addition, during the first few menstrual cycles, clients may experience increased discomfort (dysmenorrheal) with their menses.

In this section, information regarding the common health problems and side effects associated with implant use is provided. These include:

- Suspected perforation
- Bleeding changes
- Severe pain in the lower abdomen
- Pain and/or cramping
- Missing strings
- Uterine perforation
- IUD expulsion

Management of problems associated with IUD

Suspected perforation	
If perforation is suspected based on the signs such as fainting during or after insertion, pain, rapid pulse and respiration, fatigue	▪ Stop the insertion. If IUD was already inserted, remove it ▪ Place client in a horizontal position and observe for an hour ▪ Monitor vital signs (BP, puls e, respiration and temperature) every 5 to 10 minutes ▪ Check for signs of intra-abdominal bleeding (haematocrit, haemoglobin) ▪ If no signs of bleeding, observe for several more hours before sending home. ▪ Counsel to abstain from sex for 2 weeks ▪ Help her choose another method
If intra -abdominal bleeding is suspected	▪ If her vital signs are getting worse (rapid pulse, falling blood pressure, fainting) and or here haematocrit/haemoglobin are falling, refer to higher level of care without further delay
Bleeding changes	
Spotting, irregular bleeding	▪ Reassure that many IUD users experience irregular bleeding or spotting. This is not harmful and usually becomes less after the first several months ▪ Suggest short course of non- steroidal ant - inflammatory drugs (NSAID) such as ibuprofen 400 mg or Indomethacin 25 mg 2 times a day for 5 days
Heavy or prolonged monthly bleeding	▪ Reassure that many women who use IUD experience heavy or prolonged menses. It is generally not harmful and becomes less or stops after the first s everal months of use ▪ For moderate short-term relief try (one at a time): ▪ Tranexamic acid 1500 mg 3 times a day for 3 days, then 1000 mg once a day for 2 days, beginning when heavy bleeding starts ▪ NSAID such as ibuprofen 400 mg or Indomethacin 25 mg 2 times a day for 5 days ▪ Provide iron tablets if possible and counsel about diet high in iron

If irregular, heavy or prolonged bleeding continues or starts after several months of normal bleeding or long after the IUD was inserted	▪ Rule out underlying condition such (e.g. infection or genital malignancy) and treat accordingly or refer to the specialist ▪ She can continue using the IUD while condition is being evaluated ▪ If bleeding is caused by STI or PID, she can continue using the IUD during treatment
Severe pain in lower abdomen	
History and examination	Assess for the signs/symptoms of PID and ectopic pregnancy ▪ Do abdominal and pelvic exam if possible to assess for PID symptoms such as abnormal vaginal bleeding or discharge, cervical discharge, tenderness in th e ovaries or fallopian tubes, cervical motion tenderness ▪ Assess for symptoms such as: o Unusual vaginal discharge o Fever or chills o Bleeding after sex o Nausea and/or vomiting o A tender pelvic mass o Rebound abdominal tenderness o Abnormal vaginal bleeding or no monthly bleeding, especially if this is a change from her usual bleeding pattern o Light-headedness, dizziness or fainting
If suspicious for PID	▪ Begin antibiotics immediately, e.g. o Ciprofloxacin 500 mg bd x 5 days o Doxycycline 100 mg tab orally twice daily x 7 days o Metronidazole 400 mg tab orally twice daily x 14 days ▪ Follow-up in 48 hours ▪ There is no need to remove IUD unless client wants to discontinue. If she wants it removed, take it out after 2-3 days of antibiotic treatment ▪ Instruct client to take all medication until it is finished ▪ Tell patient to return to clinic 4 –7 days after completing antibiotics ▪ Tetracycline/Doxycycline should be taken one hour before meals or two hours after meals. Avoid antacids, dairy products, e.g. milk, and mineral preparation s, e.g. calcium, when taken tetracycline ▪ Counsel client to avoid sexual intercourse until client and partner(s) are cured; use condoms to prevent re-infections. If STI is suspected, treat partner(s) ▪ If IUD is removed, counsel client regarding choice of alternative family planning method until pregnancy is desired ▪ A client who desires another IUD can have it inserted after she and her partner were cured.

If suspicious for ectopic pregnancy	▪ Refer to a higher level provider immediately for diagnosis and care
Pain and/or cramping	
If pain or cramps occurred since IUD insertion (first three months) and are linked to monthly bleeding	▪ Re-assure client that pain and cramps are not an unusual side effect of IUD use and usually decrease over time. They are not harmful. ▪ Give analgesic tablets
If cramping continues and occurs outside of monthly bleeding	▪ Evaluate for underlying health condition (infection, partial expulsion of the IUD) and treat or refer ▪ If no underlying condition is found and cramping is unacceptable to the client, help her choose another method
Missing strings	
History and examination	Ask the client: ▪ Whether and when she saw the IUD come out ▪ When/if she last felt the strings ▪ When she had her monthly bleeding ▪ If she has any symptoms of pregnancy ▪ If sh e has used a backup method since she noticed the strings were missing ▪ Conduct pelvic examination to assess if IUD is still in place and for signs of pregnancy
If strings are neither visible nor felt and client is not pregnant	▪ Gently explore the endocervi cal canal with a narrow artery forceps or spiral tail extractor
If tail is found	▪ Bring it down gently into the vagina, taking care not to pull it
If strings are not found after cervical exploration	▪ Take lateral view x-ray or USS to locate the IUD
If t he IUD is located within the uterine cavity	▪ Leave it in place and explain the client that she is still protected from pregnancy, but will not be able to check for strings. Make a note in her chart that strings are not visible.
If ultrasonography or x - ray indicates that the device is in the abdominal cavity	▪ Re-assure the client and refer to physician for removal by appropriate technique

Uterine pregnancy	
If strings are visible	▪ Inform client of your findings and explain that IUD in the uterus during pregnancy increases the risk of preterm delivery or miscarriage (possibly septic) during the first or second trimester. ▪ Explain that if she is planning to continue the pregnancy, it is best to remove the IUD, although the removal procedure itself involves a small risk of miscarriage. ▪ If client consents, remove device by gently pulling the strings ▪ Refer for antenatal care, counsel client to return to clinic if abdominal pain and bleeding/spotting occurs
If strings are not visible	▪ Refer for ultrasound if possible to determine whether the IUD is still in the uterus. ▪ If it is, or if ultrasound is not possible, her pregnancy should be followed closely. ▪ Counsel to seek care without any delay if she experience symptoms of miscarriage/infection.
IUD expulsion	
History and examination	Ask the client: ▪ when she last felt the strings ▪ her last menstrual period and duration ▪ if there is abdominal pain/cramping with vaginal bleeding ▪ if IUD was seen on pad or on pants *Physical examination* ▪ Assess the breast and abdomen for signs of pregnancy ▪ Perform speculum and bimanual pelvic examination to check for the presence of strings and to rule out or confirm pregnancy
If strings are unusually long or stem of device is at cervical os and pregnancy is ruled out	▪ Remove the IUD ▪ If client wants to continue using IUD, re -insert another one and follow-up in six weeks. If not, help her choose another method
If strings are unusually long or stem of device is at cervical os, and unable to exclude pregnancy	▪ Remove the IUD ▪ Provide barrier contraceptive ▪ Ask client to return to the clinic in four weeks for re-evaluation
If client reports that IUD came out	▪ Discuss whether she wants another IUD or a different method. ▪ If she wants another IUD, she can have one inserted at any time as long as pr ovider is reasonably certain she is not pregnant

Note: Strongly consider hospitalization or referral for hospitalization with acute low abdominal pain:

- diagnosis is uncertain
- surgical emergency (e.g. appendicitis, ectopic pregnancy) is suspected
- pelvic abscess is suspected
- client is pregnant
- client is unable to follow or tolerate outpatient therapy
- client fails to respond to outpatient therapy
- outpatient follow-up after 48–72 hours cannot be arranged

Warning Signs/Special Concerns - ***(Client must return to the Clinic as soon as possible)***

The client should report to the nearest family planning clinic if she notices any of the following:

- **P** - period late or abnormal bleeding
- **A** - abnormal pain or pain with intercourse
- **I** - infection exposure, such as gonorrhoea, abnormal discharges
- **N** - not feeling well, fever or chills
- **S** - strings missing, shorter or longer

SUMMARY

Long-term success, as defined by satisfied clients and high continuation rates, will occur only if clinic staff recognize the importance of providing follow-up care (including counselling) and prompt management of side effects as well as other problems should they occur. Most side effects and other health problems associated with IUD are not serious. As mentioned previously, changes in the menstrual pattern, especially some increase in the amount and duration of menstrual bleeding, are the most common adverse side effects.

EVALUATION

- List the common side effects of the use of IUDs.
- What are the warning signs requiring prompt medical attention?
- Discuss the management of IUD-related pregnancy.
- Discuss the management of missing string.

Module Seven – Session 2: Problem Management during use of Contraceptive Sub-dermal Implants

Time: 1 hour

Learning Objectives:

By the end of this session, participants should be able to:

- List the common side effects, the occasional side effects and the warning signs requiring prompt medical attention in implant users.
- Indicate what action should be taken medically for each side effect.
- Demonstrate through case studies and role plays ways of handling client concerns about side effects of implant
- Demonstrate counselling clients on side effects of implants in clear everyday language

Session Overview:

- Common side effects, the occasional side effects and the warning signs requiring prompt medical attention in implant users.
- What action should be taken medically for each side effect?
- Demonstration through case studies and role plays of ways of handling client concerns about side effects of implant
- Demonstrate of counselling clients on side effects of implants in clear everyday language

Methods:

- Brainstorming
- Discussion
- Illustrated Lecture
- Small group discussion

Materials:

- Flip chart and Stand
- Markers
- Lap top
- LCD Projector

CONTENT

Most side effects and other health problems associated with the use of implants are not serious. Changes in menstrual bleeding patterns are by far the most common adverse effect. In addition to menstrual bleeding changes, women using Jadelle implants occasionally develop enlarged ovarian follicles. Fortunately, they rarely cause symptoms and usually are discovered only incidentally at pelvic examinations. In addition, they generally shrink and disappear spontaneously and rarely require treatment.

Ectopic pregnancies also have occurred, although clinical studies have shown no increase in the rate of ectopic pregnancies per year among implants users compared with women not using any contraceptive method. Finally, several other conditions that may or may not be associated with the use of implants have been reported. They include headache, breast tenderness and/or discharge, weight gain, increased body or facial hair (hirsutism) and vaginal infection (vaginitis)
In this session, additional information and guidelines for assessing and managing the most important of these side effects and other health problems are provided. These include:

- Pain after insertion or removal
- Infection at the insertion site
- Irregular or heavy bleeding
- Irregular or heavy bleeding

Management of problems associated with contraceptive implants

Pain after insertion or removal	
If no signs of infection	▪ Advise her to avoid pressing on the implants for a few days and never press on the implants if tender ▪ Give Aspirin or another non-steroidal anti-inflammatory drug
Infection at the insertion site	
If there is redness, heat, pain, pus	▪ Do not remove the implants ▪ Clean the infected area with soap and water or antiseptic ▪ Given an oral antibiotic, e.g. Amoxicillin 500 gm tds for 7 days and ask the client to return in one week ▪ Then if no improvement, remove the implants or refer for removal
If there is an abscess	▪ Clean the infected area with antiseptic, make an incision, and drain the pus ▪ Treat the wound and given oral antibiotic for seven days ▪ Ask client to return in 7 days if she still has symptoms (heat, pain, drainage, redness).If infection is still present, remove the implants or refer for removal. Help to choose another method
Irregular or heavy bleeding	
History and examination	Ask the client: ▪ the duration and quantity of bleeding ▪ if it coincides in timing with implants insertion ▪ the presence of abdominal pain or fainting spells

	Physical examination ▪ Check mucous membrane for colour and pallor ▪ Check weight ▪ Check blood pressure ▪ Check that the implant is still in place and complete ▪ If underlying condition is suspected, perform abdominal and pelvic examinations to exclude pregnancy or related complications, e.g. abortion or ectopic pregnancy (pregnancy is highly unlikely if it was ruled out prior to insertion of the implant and implant is still in place) *Test* ▪ Pregnancy test or a pelvic ultrasound if indicated ▪ Refer as indicated
If no underlying condition is suspected (implant is still in place and bleeding started after implant initiation)	▪ Reassure the client t hat bleeding changes are common in women who are using implants, they are not harmful and usually become less or stops altogether after the first year of use ▪ If the client finds the bleeding unacceptable and no estrogen contraindication, offer: o one cycle o f low-dose combined oral contraceptive (pill containing the progestin levonorgestrel). The same progestin present in the implants is best for controlling bleeding o Ibuprofen or other non-steroidal anti-inflammatory drugs, but not aspirin ▪ If bleeding is very heavy (twice as much as usual): o check for anaemia. If present, treat and refer o advise on food containing iron ▪ If bleeding is unacceptable to the client, help her choose another method and remove implant **Note:** Uterine evacuation is not necessary and is contraindicated
If bleeding is due to gynaecological issues	▪ Treat or refer for care as appropriate
Unexplained abnormal vaginal bleeding that suggests underlying medical condition unrelated to method use	▪ The client can continue using implant while her co ndition is being evaluated ▪ If no cause of bleeding can be found, consider stopping implants to make diagnosis easier. Provide another method until the condition is evaluated and treated (other than hormonal method or IUD) ▪ Treat any underlying medical probl ems or refer for care. If bleeding is caused by STI or PID, she can continue using implants during treatment. If caused by cervical or endometrial cancer, she can continue using implants while awaiting treatment.

Severe pain in lower abdomen	
History and examination	▪ Rule out ovarian cyst, complicated ovarian cyst, ovarian tumour, pelvic inflammatory diseases, appendicitis, ectopic pregnancy or ruptured tumour ▪ Be particularly alert for additional signs or symptoms of ectopic pregnancy, which is rare, but serious: o abnormal vaginal bleeding or no monthly bleeding, particularly if this is change from her previous bleeding pattern o light-headedness or dizziness o fainting
If ectopic pregnancy or another serious condition is suspected	▪ Refer for immediate diagnosis and care ▪ Implants can remain in place
If pain is due to ovarian cyst	▪ Implants can remain in place. ▪ Re-assure the client that these cysts usually disappear on their own without surgery. ▪ To be sure there is no problem, see the client again in about three weeks if possible
Headaches	
Ordinary headaches	If these headaches are ordinary: ▪ Suggest painkillers such as ibuprofen or paracetamol ▪ Reassure
If migrainous headaches with aura (blurred vision, temporary loss of vision, seeing flashing lights or zigzag line)	▪ If migraines with aura started or became worse after she began using the method, remove implants. ▪ Help client to choose non-hormonal contraceptive method ▪ Refer for care as needed
If there is no pregnancy and amenorrhea is less than six weeks	▪ Re-assure the client that menstruation may resume within 4–6 weeks or onset of last menses ▪ Give follow-up appointment for 2–4 weeks
If the client is pregnant	▪ Remove the implant ▪ Refer immediately for antenatal are

Warning Signs/Special Concerns - *(Client must return to the Clinic as soon as possible)*

The client should report to the nearest family planning clinic if she notices any of the following:

- Severe lower abdominal pain
- Heavy vaginal bleeding
- Arm pain
- Pus or bleeding at the insertion site (this may indicate infection)
- Expulsion of an implant (this rarely occurs with proper placement)
- Episodes of migraine, repeated bad headaches, or blurred vision
- Delayed menstrual cycles after along interval of regular cycles
- Suspicion of pregnancy
- Jaundice

SUMMARY

Most of the health problems associated with implants' use are not serious. Good counselling about these side effects enables the client to tolerate them while improving continuation rates. Changes in menstrual bleeding patterns are by far the most common adverse effect.

Management of the side effects ranges from simple reassurance, medical treatment, to referral for further care. User concerns must be patiently listened to and addressed accordingly.

EVALUATION

- List the common side effects of implants' use.
- What are the warning signs requiring prompt medical attention.
- What the known medical treatments for vaginal bleeding in implant users.
- Describe five examples of user concerns.

MODULE EIGHT

INFECTION PREVENTION PRACTICES DURING IUD AND IMPLANT INSERTION AND REMOVAL TECHNIQUES

Session 1: Asepsis, Hand washing and Gloving

Session 2: Disinfection and Sterilization
Session 3: Disposal of Sharps and Waste

Module Eight – Session 1: Asepsis, Hand Washing and Gloving

Time: 45 Minutes

Learning Objectives

By the end of this session, participants should be able to:

- Discuss importance of Infection Prevention and the Disease Transmission Cycle
- Identify potential consequences of poor Infection Prevention practices
- Define Aseptic technique
- Explain the importance of hand washing in Infection Prevention
- Demonstrate the gloving process
- Describe ways to properly prepare a client for clinical procedures
- Explain the importance of establishing and maintaining a sterile field

Session Overview

- Importance of Infection Prevention and the Disease Transmission Cycle
- Potential consequences of poor Infection Prevention practices
- Definition of Aseptic techniques
- Importance of hand washing in I.P.
- Proper use of gloves
- Appropriate attire for procedure
- Preparation of a client for clinical procedures
- Importance of establishing and maintaining a sterile field

Methods

- Discussion
- Demonstration and return demonstration handout
- Handout
- Case studies

Materials

- Video CDs
- Projector Screen
- LCD Projector
- Laptop
- Samples

CONTENT

Importance of Infection Prevention

Proper infection prevention practices must be followed in order to minimize the risk of infection and serious disease for the client, the provider, and all facility staff members. People with infections, both clients and staff member, may not have any sign or symptoms of the infections they carry. This is particularly notable for HIV and hepatitis viruses, but is the case for other infections as well. Therefore, it is important for all staff to practice proper infection prevention with all clients at all times. All health providers are responsible for client and staff safety. This includes ensuring that appropriate infection prevention practices are followed at the facilities.

Potential consequences of poor Infection Prevention (IP) practices during service provision

There are several serious consequences of using ineffective infection prevention practices during service provision.

- Infection, such as HIV, hepatitis and others commonly found in clinic settings (e.g. *Staphylococcus* and *Streptococcus)* may be transmitted to clients, providers or clinic staff.
- Many infections related to service use are consequences of inappropriate IP procedure used during the service provision.
- A provider-caused (iatrogenic) reproductive tract infection, such as endometritis or pelvic inflammatory disease (PID), may result from poor infection prevention practices.
- A client who acquires a post-procedure infection as a result of using a family planning method may never want to use the method again.

Definition of Infection Prevention Terms

Microorganisms are the causative agents of infection. They include bacteria, viruses, fungi and parasites. For infection prevention purposes, bacteria can be further divided into three categories: vegetative (staphylococcus), mycobacteria (tuberculosis) and endospores (tetanus). Spores are the most difficult to kill.

The terms asepsis, antisepsis, decontamination, cleaning, disinfection and sterilization often are confusing. For the purpose of this manual, the following definitions will be used:

Asepsis and Aseptic Technique are general terms used 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 to a safe level, or eliminate, the number of microorganism on both animate (living) surfaces such as skin and tissue, and inanimate objects such as surgical instruments and other items.

Antisepsis **i**s the prevention of infection by killing or inhibiting the growth of microorganisms on skin and other body tissues using a chemical agent (antiseptic).

Decontamination is the process that makes objects safer to be handled by staff before cleaning (It reduces the number of, but does not eliminate, microorganisms on instruments and other items). Objects to be decontaminated include large surfaces (e.g. capsules or operating tables) and surgical instruments, gloves and other items contaminated with blood or body fluids.

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

Disinfection is the process that eliminates most, but not all, disease-causing microorganisms from inanimate objectives.

High-Level Disinfection (HLD) by boiling, steaming or the use of chemicals eliminates all microorganisms except some bacterial endospores from inanimate objects.

Sterilization is the process that eliminates all microorganisms (bacteria, viruses, fungi and parasites) including bacteria endospores from inanimate objects.

Aseptic Technique

Aseptic techniques are routine practices before, during and after clinical procedures:

- Placing a physical, mechanical or chemical "barrier" between microorganisms and an individual, whether a client or health worker, is an effective means of preventing the spread of disease (i.e., the barrier serves to break the disease transmission cycle). The following septic technique refer to infection prevention practices that create protective barriers for infection prevention:
  - Handwashing;
  - Wearing gloves (both hand) either for surgery or when handling contaminated waste materials or soiled instruments;
  - Wearing appropriate attire (e.g. protective goggles, face mask or apron) when contact with blood or body fluids is possible;
  - Using antiseptic solutions to prepare the skin prior to clinical procedure.
  - Using safe work practices such as **not** recapping or bending needles, safely handling surgical instruments, and properly disposing of waste materials; and
  - Maintaining a safer environment in the procedure area

Appropriate Time for Handwashing

Hands should be washed:

- Before examining each client
- After examining each client
- After touching any instrument or object that might be contaminated with blood or other body fluids, or after touching mucous membranes (e.g. eyes, nose, mouth)
- Before putting on gloves for clinical procedures
- After removing gloves (hands can become contaminated if gloves contain invisible holes or tears).

Hand washing

Hand washing may be the single most important procedure for preventing infection. It is indicated:

- when examining a client (before and after each client)
- when putting on sterile gloves for surgical procedure
- after any situation that may make hands to be contaminated
- after removing gloves

Types of hand washing

- Plain soap with running water – routine
- Antiseptic with running water
- Alcohol scrubs

Steps

- Wet the hands with running water
- Rub both hands together with soap and lather, making sure to rub all parts of your hands
- Vigorously weave fingers and thumbs together and slide them back and forth for 10–15 seconds or for longer if hands are visibly soiled
- Remember to wash around the nails
- Rinse hands under a stream of clean, running water until all soap is gone
- Dry hands with a clean towel or allow hands to air-dry

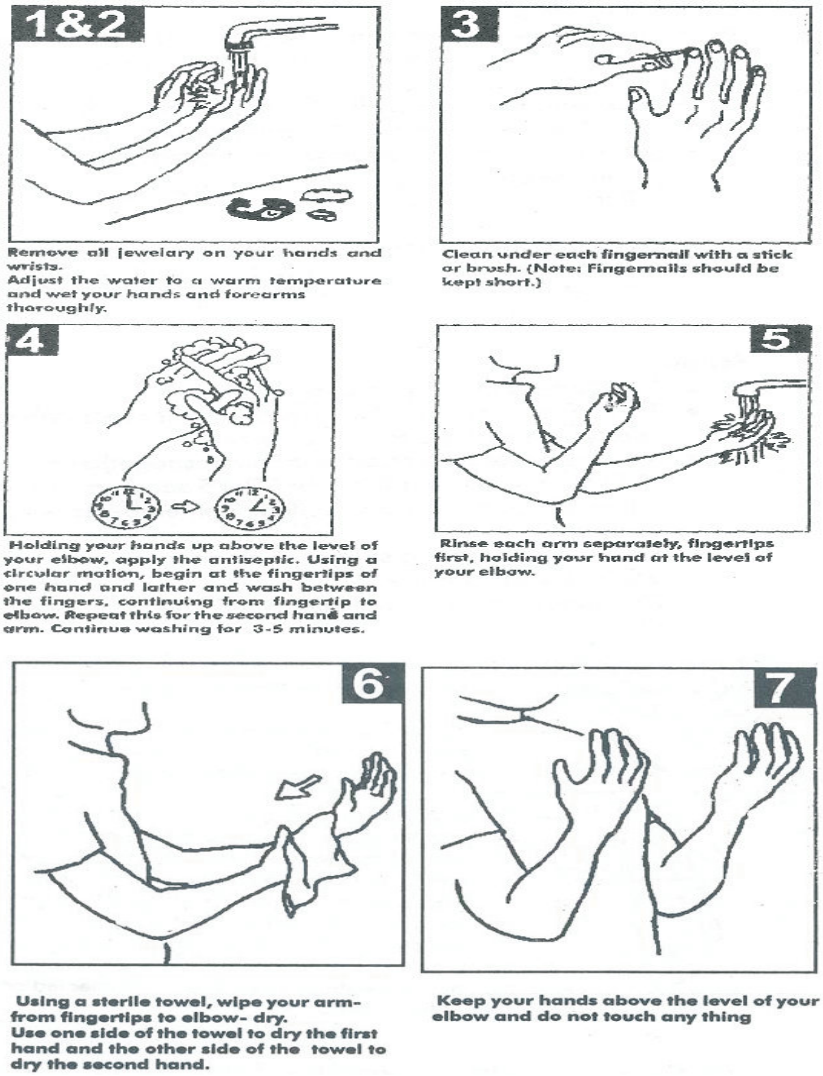
Note: Hands should be washed first on arrival at work, in-between attending to clients, and as the last thing when leaving the health facility.

Figure 8.1.1: Steps in performing Hand wash with soap and water

Surgical hand scrub

- Remove all jewellery
- Wet hands and forearms thoroughly
- Clean fingernails with a brush
- Hold your hands up above the level of your elbows
- Apply antiseptic
- Using a circular motion, begin at the fingertips of one hand, lather and wash between fingers, continuing from finger tips to elbows
- Repeat for the second hand and arm for 3–5 minutes
- Rinse each arm separately, finger tips first, holding your hand above the level of your elbow
- Using a sterile towel, wipe your arms dry from finger tips to elbow
- Use one side of the towel to dry the first hand and the other side to dry the second hand
- Keep your hands above the level of your elbows and do not touch anything

Figure 8.1.2: Steps in performing a surgical hand scrub



Note: Recent studies have shown that using a brush to scrub the hand during surgical hand scrub provides no greater reduction in the number of microorganisms on the hands than scrubbing with antiseptic alone. Surgical hand scrub may be performed using a soft brush, a sponge or antiseptic alone. Avoid using a hard brush, which is not necessary and may irritate the skin.

- To clean hands when running water is not available, use either:
  - A bucket with a tap that can be turned off to lather hands and turned on again for rinsing.
  - A bucket and pitcher, with one person pouring the water over the other's hands and allowing it to drain into the bucket
  - An alcohol hand rub, which does not require water.

Steps of Alcohol Hand rub

- Apply 3-5 ml of alcohol or an alcohol handrub solution
- Rub hands together until they are dry
- Because using alcohol alone tends to dry the skin, it is best to use an alcohol handrub solution.

To prepare an alcohol handrub solution, add together:

- 2 ml of glycerine, propylene glycol, or sorbitol and
- 100 ml of 60-90% alcohol

Note: An alcohol handrub does not remove soil or organic material such as blood. Therefore, an alcohol handrub should not be used when hands are visibly soiled.

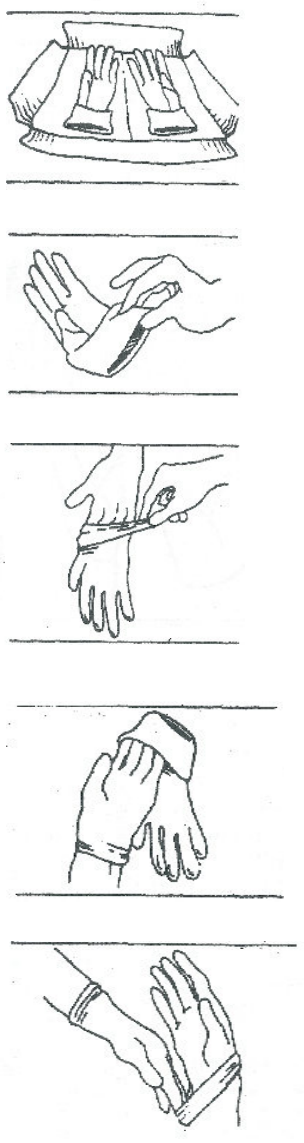
Use of Gloves

When to wear gloves:

- When in contact with blood and body fluids from any client.
- When performing a procedure,
- When disposing of contaminated waste items (cotton, gauze or dressings)

Note: A separate pair of gloves must be used for each client to avoid cross-contamination

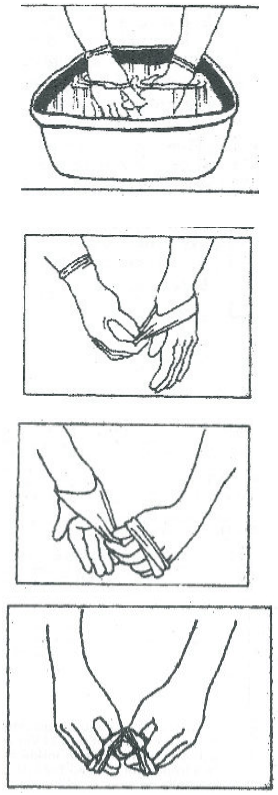
Figure 8.1.2: Steps for putting on sterile or high-level disinfected surgical gloves



1. Prepare a large, clean, dry area for opening the package of gloves. (If the gloves have been processed and are not wrapped in a package, lay them on a sterile or high-level disinfected surface). Either (1) open the outer glove package and then perform a surgical hand scrub, or (2) perform a surgical hand scrub and then ask someone to open the package for you. Dry your hands completely.
2. Open the inner glove wrapper, exposing the cuffed gloves with the palms up.
3. Pick up the glove by the cuff, touching only the inside portion of the cuff (the side that will be touching your skin when the glove is on).
4. While holding the cuff, slip your other hand into the glove. (Pointing the fingers of the glove toward the floor will keep the fingers open). Be careful not to touch anything, and hold the gloves above waist level. (Note: if the first glove is not fitted correctly, wait to make any adjustment until the second glove is on. Then use the sterile or high-level disinfected fingers of one glove to adjust the sterile or high-level disinfected portion of the other glove).
5. Pick up the second glove by sliding the fingers of the gloved hand under the cuff of the second glove. Be careful not to contaminate the gloved hand with the ungloved hand as the second glove is being put on.
6. Put the second glove on the ungloved hand by maintaining a steady pull through the cuff.
7. Adjust the position of the gloved fingers until the gloves fit comfortably.

Adapted from: Intrah, 1996. Infection Prevention in FP/MCH Clinics. In: Guidelines for Clinical Procedures in Family Planning: A Reference for Trainers. Chapel Hill, NC, pp. A11-22, A11-23.

Figure 8.1.3: Steps for removing surgical gloves



1. Rinse gloved hands in a basin of decontaminated solution to remove blood or other body fluids.
2. Grasp one of the gloves near the cuff and pull it part of the way off. Turn the glove partially on your hand before removing the second glove to protect you from touching the outside surface of either glove with your bare hands.
3. Leaving the first glove over your fingers, grasp the second glove near the cuff and pull it part of the way off. The glove will run inside out. It is important to keep the second glove partially on your hand to protect you from touching the outside surface of the first glove with your bare hand.
4. Pull off the two gloves at the same time, being careful to touch only the inside surfaces of the gloves with your bare hands.
5. If the gloves are disposable or are not intact, dispose of them properly (as stated under information on managing medical waste at the end of this chapter. Wash your hands immediately after removing the gloves, since the gloves may contain invisible holes or tears, leaving you at risk of exposure to contaminated blood and other body fluids.

Surgical attire

This includes wearing of masks, eye covers, caps, footwear, gowns and gloves

Steps for maintaining a sterile field

- Place only sterile items within the sterile field
- Open, dispense, and transfer sterile items without contaminating them
- Consider items located below the level of draped painted as unsterile
- Do not allow *scrubbed personnel* to reach across unsterile areas or touch unsterile items
- Do not allow *unscrubbed personnel* to reach across sterile field or touch sterile items
- Recognize and maintain sterile field
- Recognize that the edges of a package containing sterile items are unsterile
- *Recognize that a sterile barrier that has been penetrated is considered contaminated*
- Be conscious of where you are at all times and move within or around the sterile field
- Do not place sterile items near open windows or doors.

Steps for maintaining a safer environment

- Limit entry of unauthorized individuals to surgical/procedure areas
- Close doors and draw curtains during all procedures
- Ensure that all personnel in the surgical area wear clean clothes, masks, caps and good footwear
- Enclose the surgical procedure area; to minimize dust and eliminate insects, air-condition the room
- Decontaminate and clean examination/operating tables, counters, instrument trolleys, etc, before a new client is brought into the room
- Remove used gloves before touching anything. Countertops, faucets, and pens and pencils are frequently contaminated because health care workers touch them while wearing used gloves.
- Processing gloves for reuse is **not** recommended, since gloves are difficult to properly process. Processing and reusing disposable gloves is especially not recommended.
- Studies have shown that invisible holes or tears are likely to occur when gloves are processed.

- Surgical gloves are the most expensive. Whenever possible, they should be used only for procedures in which there will be contact with the bloodstream or tissues under the skin.

Double Gloving
Several recent studies have shown that double gloving – wearing two pairs of surgical gloves – during major surgical procedure reduces the risk of service providers' hands being contaminated with blood and other body fluids. However, there is no consensus among professional medical organizations or government regulatory bodies on the use of double gloving during surgical procedures, and it is recommended that each facility make its own policy.

There are several concerns regarding double gloving:

- Some doctors find that wearing two pairs of gloves is undesirable because it decreased sensitivity and blood circulation
- In many low-resource settings, double gloving may be problematic due to inadequate supplies of gloves or the additional cost of using two pairs of gloves for contact with each client.

Where cost and availability are not major obstacles, facilities may consider the benefits of double gloving for procedures in which there is an increased likelihood that the gloves will tear or be punctured. In addition, although reuse of disposal (single-use) surgical gloves is not recommended, in those circumstances in which it is necessary to process and reuse disposable gloves, double gloving may help protect service providers from exposure to potentially infectious blood and other body fluids, since invisible holes or tears are more likely to occur when gloves have been processed.

Appropriate Attire for Procedure
Clients can wear their own clothing provided it is clean, or labor room attire if available while staff, including the clinicians should wear a cap, mask or gown.

Although skin cannot be sterilized, pre-operative cleaning of the surgical site with soap and water followed by antiseptic preparation minimizes the number of microorganisms on the client's skin. Both steps are important in reducing the risk of infection following clinical procedure.

Preparing of Client for Clinical procedures
Client preparation before a clinical procedure involves using an antiseptic solution on the client's skin, vagina, or cervix to destroy or prevent the growth of microorganisms. Most surgical-site infections result from contamination during surgery – not, as many people believe, because clients do not keep the wound clean after surgery. Frequently, bacteria from the client's skin or tissues is the cause of infections. Thus, it is critical to pay strict attention to proper preparation of the client before a procedure.

SUMMARY
Adoption of Aseptic Techniques when conducting medical procedures remains one of the major strategies for preventing infection. The understanding of the various procedures of proper hand washing, gloving and removal of used gloves and the wearing of proper attires is imperative for the maintenance of a sterile field.

EVALUATION
- Why is infection prevention important in family planning services?
- Define Asepsis, Antisepsis, Decontamination, High Level Disinfectant and Sterilization
- Demonstrate proper hand-washing during IUD and implant services
- Demonstrate the proper use of gloves.
- Explain the Importance of maintaining a sterile field.

Module Eight - Session 2: Disinfection and Sterilization

Time: 1 hour

Learning Objectives:

By the end of this session, participants should be able to:

- List and explain the steps of processing instruments and other items
- Discuss the correct way of preparing 0.5% chlorine solution
- Demonstrate the appropriate order for conducting these steps
- Identify how to appropriately organize an area of the facility for processing instruments and other items

Session Overview:

- Steps of processing instruments and other items
- Correct way of preparing 0.5% chlorine solution
- Organizing an area for processing instruments and other items in the
- health facility
- Storage of processed instruments.

Methods

- Lecture
- Discussion
- Demonstration and return demonstration
- Hand out
- Case studies

Resources

- Flip charts stand and paper
- Colored markers
- Masking tape
- Laptop
- LCD projector
- Projector Screen
- Video Cds

CONTENT

To prevent transmission of infections via medical instruments, each step of instrument processing i.e., decontamination, cleaning, and sterilization or high level disinfection, must be done properly.

Step 1: Decontamination

Decontamination kills many disease-causing microorganisms such as hepatitis virus and HIV, making instruments and other items safer for handling during cleaning. Decontamination is performed by soaking used instruments and other items in 0.5% Chlorine solution for 10 minutes.

MAKING A CHLORINE SOLUTION

Use the following formula to prepare a dilute chlorine solution from liquid

$$\frac{\text{\% Chlorine in solution}}{\text{\% Chlorine solution desired}} - 1 = \text{number parts water needed per part chlorine}$$

Example: to make a 0.5% chlorine solution from bleach with 3.5% active chlorine

$$\frac{3.5\%}{0.5} - 1 = 7 - 1 = 6$$

Thus, add 6 parts water to 1 part liquid bleach

Note: Instruments should not be exposed to chlorine for prolonged periods. A10-minute time period is sufficient for decontamination.

Large surfaces such as examination and operating tables, laboratory bench tops and other equipment that may have come in contact with blood or other body fluids also should be decontaminated. Wiping them down with a suitable disinfected towel or cloth (e.g. 0.5% chlorine or 1-2% phenol) is a practical, inexpensive way to decontaminate these items.

Step 2: Cleaning

Cleaning instruments with detergent and water removes blood and particulate matter and improves the quality of subsequent high-level disinfection or sterilization. A brush should be used for cleaning most instruments. Staff members must wear thick utility gloves while cleaning instruments.

Step 3: Sterilization or High-level Disinfection

To be effective, both sterilization and high-level disinfection (HLD) must be preceded by decontamination, careful cleaning, and thorough rinsing. When sterilization of instruments is not possible, HLD is the only acceptable alternative.

Sterilization

Sterilization using steam, dry heat, or chemical solution destroys all microorganisms (bacteria, viruses, fungi, and parasites) including bacterial endospores, from instruments and other items. Sterilization is the method recommended for items that come in contact with the blood stream or tissues beneath the skin (such as reusable needles, syringes, and surgical and many delivery instruments):

- Jointed instruments, such as ring forceps, should be open or unlocked for sterilization.
- Sterilization can be done using steam (autoclaving), dry heat (oven) or chemical solutions.
- Sterilization items should then be used immediately or stored in a sterile, covered container.

i. Steam Sterilization

- Instruments may be sterilized either wrapped or unwrapped
- If items are to be wrapped before steam sterilization, use two layers of paper wrap or two layers of cotton fabric (do not use canvas);
- The unwrapped items or wrapped packs should be arranged to allow free circulation of steam
- Steam items at 121 degrees C (250 degrees F) and 106 kPa pressure (15 ibs/in2). Steam 30 minutes for wrapped, 20 minutes for unwrapped items.

Note: Do not begin timing until the steam sterilizer reaches the desired temperature and pressure.
Allow unwrapped items or wrapped packs to dry before removing them from the steam sterilizer. Allow items to cool before storage or use.

ii Dry Heat Sterilization

- Items can be wrapped in foil or double-layered cotton fabric before dry heat sterilization.
- Sterilize items at 170 degrees C (340 degrees F) for 60 minutes, or 160 degrees C (320 degrees F) for 120 minutes.

Note: Do not begin timing until the oven reaches the desired temperature.
- Dry heat can dull sharp instruments and needles. These items should not be sterilized at temperatures higher than 160 degrees C.
- Items should be allowed to cool before they are removed from the oven.

Chemical Sterilization

- Cover all items with correct dilution of glutaraldehyde solution (Cidex); do not use sporicidin for sterilization, or an 8% formaldehyde solution (least desirable because it is dangerous to breathe).
- Jointed instruments such as ring forceps, should be opened or unlocked.
- Soak items for 10 hours for Cidex, or 24 hours for formaldehyde, or as per manufacturer's instructions.
- Nothing should be added to or removed from the chemical solution once timing has begun. After soaking items, rinse them with sterile water
- Air dry before use or storage.

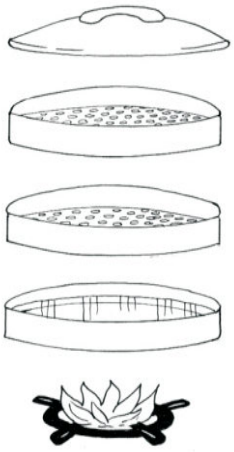
B. High-level Disinfection (HLD)

- If sterilization is not available, high level disinfection is the only acceptable alternative for preparing instruments and other reusable items for use in PPIUD insertion.

- High-level disinfection (HLD) is effective in eliminating all microorganisms except some bacterial endospores.

- There are two methods of HLD: boiling and chemical HLD
- After either HLD procedure, items that are not used immediately should be air-dried and

Figure 8.2.1: Two-Tiered Steamer



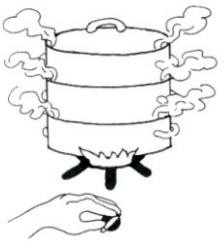
disinfection of cannulae used during manual vacuum aspiration (MVA) is to steam them in a steamer containing one to three tiers of gloves or cannulae.

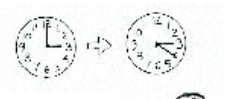
MVA cannulae may be high-level disinfected or sterilized by other methods. However, high-level disinfection of gloves by other methods is less appropriate and not recommended.

STEPS OF HLD BY STEAMING

These steps should be followed for steaming MVA cannulae and other materials as shown in the diagram below:

1. Decontaminate the materials to be high-level disinfected.
2. Place water in the bottom tray (which has no holes).
3. Stack the tray(s) of materials on top of the bottom tray.
4. Place the lid on the top tray and bring the water to a boil. When steam comes out between the trays, the water is boiling. Reduce the heat, but maintain the water at a rolling boil (steam should continue to come out between the trays). High heat wastes fuel and causes the water to evaporate more quickly.
5. Steam the materials for 20 minutes. Use a timer or make sure to record the time.
6. Remove each tray, shake off the excess water, and place the tray(s) on a second tray that does not have holes or contain water (a second bottom tray). (Do not place the tray containing the materials directly on the countertop, since this may contaminate them; remember, there are holes in the bottom of the tray.)
7. Use the materials immediately or allow them to dry for 4–6 hours (drying may be difficult in areas of high humidity).
8. Storage: Store the materials in a covered tray or put them in a high-level disinfected container and use within one week.





Special Considerations for High-Level Disinfection

The following items require special attention. To high-level disinfect them, follow the procedures listed below.

Item	HLD Procedure
Linen (caps, gowns, masks, and surgical drapes)	Linen should be steam-sterilized *HLD of linen is impractical. HLD by boiling is impractical, since drying would be necessary, and HLD using chemicals is impractical, since rinsing with boiled water and drying would be necessary.*
Instruments used during manual vacuum aspiration (MVA)	*Syringe:* HLD of the syringe after decontamination and proper cleaning is **not** necessary, because it does not come in contact with the client and is used only as a source of vacuum and as a Receptacle for blood/tissue. In addition, HLD may actually decrease the life of the syringe, since HLD damages the syringe over time. If your facility requires HLD of the syringe, soak it in a chemical solution, such as glutaraldehyde (e.g., Cidex) or a 0.5% chlorine solution. Be sure that all parts of the syringe are completely submerged and that the barrel is filled with the solution. *Cannula:* If sterilization of the cannula is not possible, it may be high-level disinfected by boiling, soaking in chemicals, or steaming. • *Boiling:* Research has shown that the cannula does not need to be submerged in the water for HLD by boiling to be effective. However, the pot/boiler must be kept covered. • *Chemical:* Completely fill and submerge the cannula in a solution that contains glutaraldehyde or in a 0.5% chlorine solution. • *Steaming:* Follow the recommended steps

Adapted from Infection Prevention Manual JHPIEGO 1991

The steps of Processing Instruments

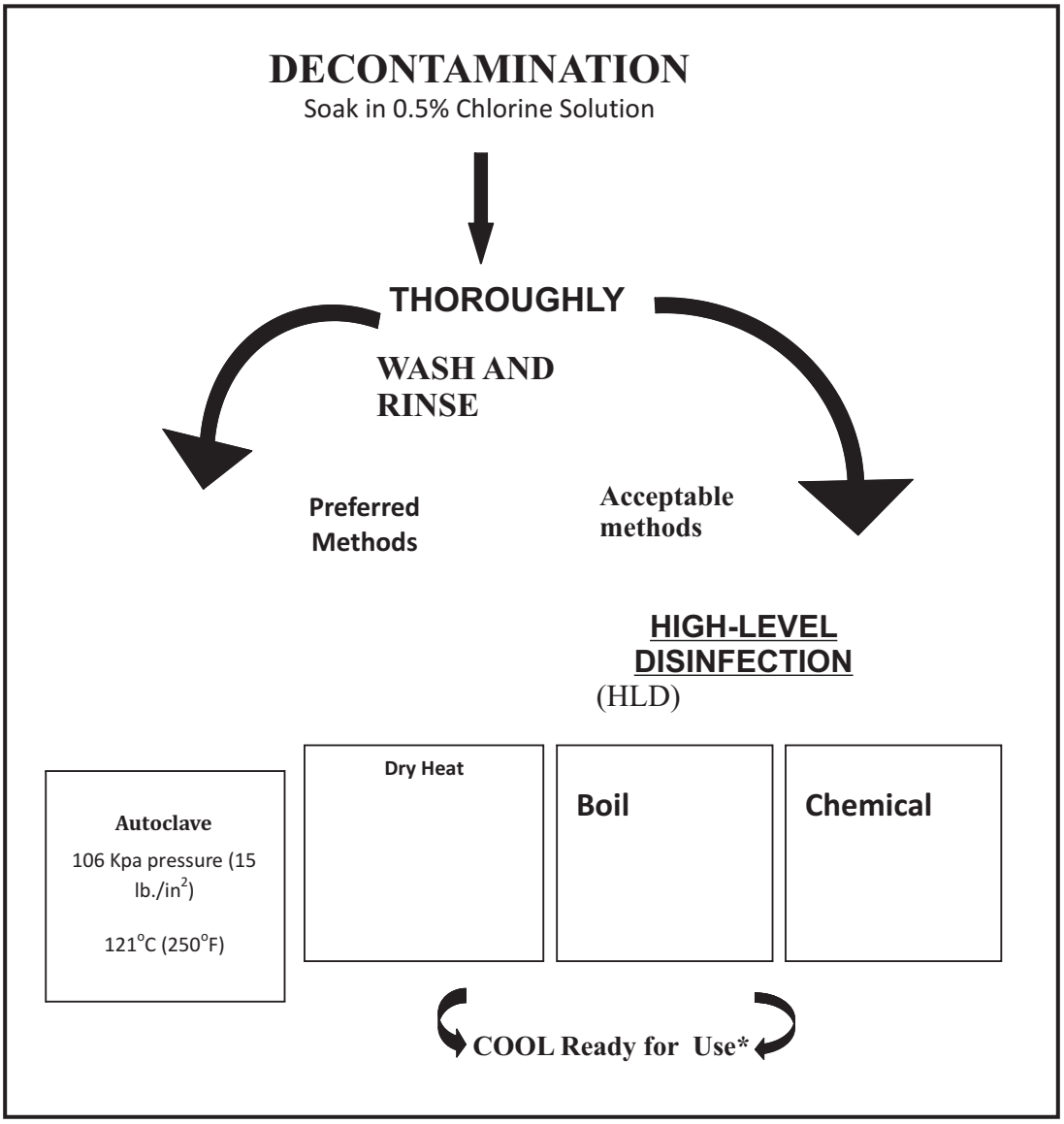
1. *Boiling*

- Completely immerse items in water. Cover and boil for 20 minutes (start timing when the water begins to boil)
- Jointed instruments, such as ring forceps, should be opened or unlocked during HLD.
- All items must be completely covered during boiling (place items that float in a weighted, porous bag).
- Do not add anything to the pot after the water begins to boil.
- Air-dry before use or storage.

2. *Chemical HLD*

- Cover all items with correct dilution of properly stored disinfectant:
  - Glutaraldehyde solution\
  - 0.5% or 0.1% chlorine solution
  - 8% formaldehyde solution
- Joined instruments, such as ring forceps, should be opened or unlocked
- Soak items for 20 minutes or as per manufacturer's instructions
- Nothing should be added to or removed from the chemical solution once timing has begun. After soaking items, rinse them with boiled water.
- Air-dry before use or storage.

Figure 8.2.2: Processing Instruments, Gloves and Other Items



Storage of Processed Equipment and Instruments

Proper storage of HLD or sterilized items is as important as the HLD or sterilization process itself.

- Items should be stored dry.
- If possible, store processed items in an enclosed cabinet.
  Do not store pick-up forceps in a bottle filled with antiseptic solution. (microorganisms will multiply in the standing solution even if an antiseptic has been added)
- HLD or sterilize pick-up forceps each day and store them dry in a high-level disinfected or sterile bottle.
- Wrapped items must be considered contaminated when:
  - The package is torn or damaged
  - The wrapping is wet
  - The expiration date is exceeded.

- Wrapped items can be used for up to one week. Wrapped items sealed in plastic can be used for up to one month.
- Unwrapped items must be used immediately or stored in a covered sterile or HLD container (for up to one week).

SUMMARY

The session highlighted the importance of processing instruments and other medical items in stepwise manner to avoid contamination. Infections prevention in medical settings relies on the effective decontamination and sterilization of instrument in use.

EVALUATION

- Describe steps for processing instrument and other medical items.
- Demonstrate appropriate order for processing instrument in the health facility
- Explain strategies for storing processed instrument.

Module Eight - Session 3: Disposal of Sharps and Waste

Time: 1 hour

Learning Objectives

By the end of this session, participants should be able to:

- List the ways that health workers can be injured by sharps
- Describe actions that surgical teams can take to prevent or minimize injuries by needles/sharps
- Describe the proper procedures for safe use and disposal of needles/sharps
- Describe the proper procedures for giving injections and use of multi-dose vials.
- Describe appropriate waste disposal
- State the importance of correct disposal of waste

Methods

- Lecture
- Discussion
- Demonstration and return demonstration

Resources

- Flip charts stand and paper
- Colored markers
- Masking tape
- Laptop
- LCD projector
- Projector Screen
- Handouts/Job aids
- Video Cds

CONTENT

All staff that come in contact with sharps – from doctors and nurse to those who dispose of the trash – are at risk of infections.

How injuries commonly occur

- Recapping hypodermic needles after use (this is one of the major causes of sharp-object injuries.
- Any manipulation of used sharps before disposal (such as bending, breaking or cutting hypodermic needles, which can cause the blood inside to splatter or cause staff to accidentally injure themselves).
- Accidentally sticking another staff member when there is sudden motion involving persons carrying unprotected sharps.
- Leaving sharp items in areas where they are unexpected, such as on surgical drapes or bed line.
- Accidentally sticking or cutting themselves during surgical procedures in which there is limited visibility of the hands, many sharp instruments are used, or sharp instruments/suture needles are used in confined spaces (such as many obstetric/gynecological and orthopedic procedures).
- Handling or disposing of waste that contains used hypodermic needles or other sharps.
- Unexpected client motion at the time of injections. Always warn clients when you are about to give them an injection.
- During placement of needles or sharps into disposal container that are full or do not allow for easy insertion of the items.
- When the surgeon or assistant uses their fingers as a guide or when tissue is hand-held during suturing, during manual retraction of tissue/organs, or when tying suture material with the needle still attached.
- When needle holders with the needle are left exposed.
- Other devices that cause stick-injuries and perforation of gloves include the use of suture needle without a needle holder, wire sutures, trocars, stylets, sharp pointed scissors, sharp pointed retractors, skin hooks, penetrating towel clips, tenaculi.
- Scalpel injuries occur most frequently when instruments are handed from the user to an assistant (transferring between personnel).

To prevent injuries due to sharps:

- Handle hypodermic needles, syringes, and other sharps minimally after use, and use extreme care whenever sharps are handled.
- Avoid recapping needles and do not bend, break or cut them before disposal.
- Dispose of hypodermic needles, scalpel blades, and other sharps in puncture-resistant containers immediately (or as soon as practical) after use (Disposal of sharps is described more fully in the next section of this module).
- Incinerate/burn or bury the container when three quarters full.
- Always wear utility gloves when disposing of sharps containers.
- Always wear utility gloves when washing sharps.
- Use the “hands-free technique” (described on the next page) to pass sharps during clinical procedures.
- Let clients know when you are going to give an injection to avoid startling client and causing an injury.

- Promote safety awareness during in service session focused on supporting behaviour change to prevent or minimize needle stick and sharp instrument injuries.
- Manipulate or reposition scalpel blades using forceps to grasp the blade.
- Consider using staples in place of suture and suture needles, if it would be an appropriate option.
- Use curved needles with a needle holder as a safer option to straight, hand held needles.
- Blunt instruments can be an alternative for preventing injuries, such as rounded point scissors, non-penetrating towel clips, blunt retractors, and synthetic sutures instead of wire sutures.
- When transferring sharps between personnel, avoid hand-to-hand transfer. Create a safety zone using a flat tray, mat, part of the instrument stand, or designated area on the field where instruments can be placed by the user and safely picked up by the assistant. ***Do not use a kidney basin from which items are hard to pick-up.***

The Hands Free technique for passing Sharps during Clinical Procedures

Health care workers can accidentally stick each other if or when passing sharps during a procedure, there is sudden motion involving persons carrying unprotected sharps (such as on surgical drapes). Unprotected sharps should not be passed directly from one person to another.
In the operating theatre or procedure room, pass sharp instruments and other items in such a way that the surgeon and assistant are never touching the instrument or other item at the same time (known as the hands-free technique).

Disposal of Needles and other Sharps

Improper disposal of contaminated sharp objects can cause infections in the health care facility and the community. Make hypodermic needles and other sharps unusable by incinerating them. If an industrial incinerator that will destroy hypodermic needles and other sharps is not available, reduce the risk of infections by decontaminating sharps before disposal, and bury them in a pit to make it difficult for others to scavenge them.

Sharp-disposal container: A puncture-resistant container for disposal of used needles and other sharp objects. A sharps-disposal container may be made out of a heavy cardboard box, an empty plastic jug, or a metal container.

Figure 12.4.1: Sharp-disposal container

Giving Injections

To reduce the risk of transmitting infections between clients:

- Always use a new or correctly reprocessed hypodermic needle and syringe every time an injection is given.
- Never change the needle without also changing the syringe between clients. Reusing the same syringe to give injections to multiple clients – even if the needle is changed – is not a safe practice.
- Before giving an injection
- If there is visible dirt, wash the injection site with soap and water.
- Wipe the client's skin at the injection site with an antiseptic solution to minimize the number of microorganisms and reduce the risk of infections. Using a fresh swab, wipe in a circular motion from the center outward.
- If alcohol is used, allow the alcohol to dry in order to provide maximum effectiveness in reducing microorganisms.

Note: Unexpected client motion at the time of injection can lead to accidents. Therefore, always warn clients when you are about to give an injection. To avoid needle stick accidents, follow the instructions on pages above for proper disposal and decontamination of used needles and syringes.

To avoid transmitting infections when giving IV fluids:

- Unhook the needle or catheter from the IV line, and dispose of it in a sharps-disposal container.
- Throw away the IV line and any remaining fluid. Microorganisms can survive and grow in IV fluids; if the IV line and bag/bottle of fluid are used again, infection can be transmitted to other clients.
- Never use the same IV line and fluid bag/bottle with multiple clients.

Use of Multidose Vials

Before filling a syringe from a multidose vial:

- Check the vial to be sure there are no leaks or cracks
- Check the solution to be sure it is not cloudy and that there is no particulate matter in the vial.

Note: Most solutions that come in vials are clear. One exception is the injectable contraceptive Depo-Provera, which is milky). Wipe the top of the vial with a fresh cotton swab soaked with 60-70% alcohol; allow to dry.

To reduce the risk of transmitting infections between clients:

- Always use a new or correctly processed hypodermic needle and syringe every time medication is withdrawn from a multidose vial. ***Reusing the same syringe to give injections to multiple clients – even if the needle is changed is not a safe practice.***

- **Never** leave one needle inserted in the vial cap for multiple uses. This provides a direct route for microorganisms to enter the vial and contaminate the fluid between each use.
- Wash hands with soap and water
- Where there is bleeding, allow the site to bleed briefly. (***There is <u>no</u> scientific evidence that cleaning the wound with an antiseptic or squeezing the wound decreases the risk of transmitting blood borne organisms)*.**
- If a mucous membrane has been injured or splashed, flush with a large amount of water.

- If the eyes have been splashed, irrigate with clean water, saline, or sterile irrigating solution.
- In the absence of water, an antiseptic solution can be used to flush the area but remember that antiseptic solutions have not been proven to be any more effective than soap and water
- Assess the injured health worker's risk for infection following exposure – depth of wound, type of instrument involved, amount and type of bodily fluid.
- If feasible, determine the HIV status of the source patient, with appropriate counselling and disclosure of serological status. This is a particularly important step in settings where resources are limited and recommended prophylactic drugs may not be readily available. Determining that the source patient is HIV negative will eliminate the need for drug therapy, its attendant side effects, costs and emotional stress of not knowing the risk following exposure or whether the drug therapy will work. Based on the assessment findings, determine the need for prophylaxis.
- Post exposure care includes voluntary counselling, HIV testing, treatment, and follow-up care.
- If the health care worker will receive antiretroviral drugs, counsel the worker about the possible side effects associated with the prophylactic drugs (ZDV and 3TC). Although these drugs are usually well tolerated, some of the more common side effects include:
    - Upset stomach (nausea, vomiting and diarrhea), tiredness, or headache (ZDV).
    - Upset stomach (rarely, pancreatitis with 3 TC)
    - Jaundice and kidney stones in people taking ZDV; this can be reduced by drinking 48 ounces of fluids during every 24-hour period.

- Counsel the injured health worker about behaviours to prevent transmission of HIV, such as not providing blood, organ, or semen donations; abstaining from sexual intercourse. If abstinence will be difficult or not possible for the health worker, counsel her/him to use latex condoms consistently and correctly to reduce the sexual transmission of HIV.
- Encourage the injured health care worker to include their partner in counselling. In settings where breast milk substitutes are affordable, accessible, and can be safely used, women may be advised to avoid breastfeeding during the PEP period to prevent exposing their infants to HIV in the breast milk. Post-exposure care should include the following, where feasible:
    - Screening / Testing for baseline and periodically up to 6 months after exposure (e.g. at 6 weeks HIV antibody testing of the health care worker, as soon as possible after, 12 weeks, and 6 months).
    - When antiretroviral drugs are being taken for PEP, assessment of toxicity with complete blood count, kidney and liver function tests before starting treatment and at 2 weeks after starting treatment.
    - Instruct the health care staff under treatment to report any sudden or severe flu-like illness that occurs during the follow-up period.
    - Counsel the injured worker regarding her/his emotional response, fears, and/or concerns regarding the reaction of their partner or spouse.

The essential elements of post exposure care are:

- Immediate wound care
- Counselling injured health care worker
- Risk assessment with health care worker
- Counselling, testing of source patient, if possible

- Counselling, testing of injured health care worker, if possible
- Antiretroviral drug therapy, if indicated and available
- Follow-up monitoring and counselling

Definition of Housekeeping

Housekeeping is the general cleaning and maintenance of cleanliness in a health care facility. In addition to cleanliness, the purpose of housekeeping is to reduce the number of micro organisms in the facility (thus reducing clients' and staff members' risks of infections) and provide an appealing work and service-delivery space.

Importance of Housekeeping and Waste Disposal

The purpose of proper waste disposal of clinic wastes is to:

- Prevent spread of infection to clinic personnel who handle the waste and to the local community.
- Protect those who handle wastes from accidental injury
- Provide an aesthetically pleasing atmosphere

If not disposed of properly, contaminated waste is a potential source of infection for both staff and the local community. Therefore:

- Always keep waste containers in convenient places for users outside or leave it in an open pit.
- Always dispose of contaminated waste properly – never simply throw it outside or leave it in an open pit.
- Always wear utility gloves when handling and transporting waste and wash both the gloves and your hands afterwards.

Waste Containers

- Use washable, leak-proof containers
- If a container is reusable, disinfect it with a 0.5% chlorine solution after each use
- Use waste bags

Liquid waste

- If possible, pour waste down a utility drain or into a flushable toilet or latrine. Know where the drain empties.
- If you cannot pour waste down a drain, or toilet, bury it in a pit.
- Always be careful when disposing of liquid waste. Do not allow the liquid to splash while you are pouring it.

Role of Housekeeping in Infection Prevention

The cleanliness of a health care facility is vital to the health and safety of its clients, staff and visitors, as well as to the community at large; it is the foundation for preventing the transmission of infections in the facility. The facility's cleanliness is often the first thing that a client or visitor notices, and it is a sign of the staff's concern for the clients, other staff, and visitors. In addition, an appealing environment contributes to staff members' satisfaction in working at the facility (which promotes use of the services). In places where clients and visitors may be unaccustomed to the standards of hygiene required in a health care facility, health care workers need to pay special attention to housekeeping.

General Housekeeping Guidelines

The general guidelines for housekeeping include the following:

- Cleaning schedules should be created and posted where all staff responsible for housekeeping can see them, and closely followed.
- Always wear gloves (preferably heavy utility gloves) and shoes when cleaning client-care areas.
- Cleaning should be done in a way that minimizes the scattering of dust and dirt that may contain microorganisms. Use a damp or wet mop or cloth to clean walls, floors, and surfaces; avoid dry-dusting or sweeping, which increases the spread of dust and microorganisms.
- Scrubbing is the most effective way to remove dirt and microorganisms. Scrubbing should be a part of every cleaning procedure.
- Wash surfaces, such as walls, from top to bottom so that debris falls to the floor, where it can be cleaned up last. Similarly, clean highest fixtures first and work down – for example, clean ceiling lamps first, then shelves, then tables and then the floor.
- Change cleaning solutions when they appear dirty. The disinfectant's ability to kill potentially infectious microorganisms is reduced when the solution contains a lot of soil.

Remember: Supplies and equipment used for cleaning need to be cleaned them to prevent the spread of infections. Housekeeping equipment, such as mops, buckets, and cloths, should be decontaminated, cleaned in detergent and water, rinsed in clean water, and allowed to dry before being reused. Contaminated cleaning equipment spreads, rather than reduces microorganisms in the environment.

Waste Disposal

Contaminated wastes may carry high loads of microorganisms, which are potentially infectious to any persons who contact or handle them, and to the community at large, if not disposed of properly. Contaminated wastes include blood, pus, urine, stool, and other body fluids as well as items that contact them such as gauze or used dressings. Wastes from procedure rooms, delivery rooms, operating rooms and laboratories should be considered contaminated. In addition, contaminated waste may include items that can inflict injury (e.g. used needles and blades) and spread blood-borne diseases such as hepatitis B and HIV infection.

Proper handling of waste items minimizes the spread of infection to clinic personnel and to the local community. Contaminated wastes should be transported to disposal sites in covered containers where available. Persons handling wastes should wear heavy gloves. All sharp items should be disposed in puncture-resistant containers. Liquid waste should be carefully poured down a utility drain or flushable toilet or latrine. Hands, gloves and containers should be washed after disposal of infectious waste.

It is best to burn or bury contaminated waste rather than use community waste collection because of the likelihood of the waste being deposited into a community dump site. This would increase the risk of exposure to other people. Burning or burying on site may be more difficult, but it is best for the community.

SUMMARY

All staff that come in contact with sharps – from doctors and nurse to those who dispose of the trash – are at risk of injury and infections. Proper disposal of sharps, effective housekeeping within the health facility, and appropriate disposal of dry and wet wastes are essential for infection prevention. Observing the general guidelines for housekeeping is the easiest way to keep the facility infection free

EVALUATION

- List ways by which health care workers can be injured by sharps.
- Describe strategies for the prevention of injuries during surgery
- Describe the appropriate procedures for the disposal of needles and sharps.
- Mention five Housekeeping guidelines
- Describe the process for preparation of disinfectant clearing solution.

MODULE NINE

RECORD KEEPING, MANAGEMENT INFORMATION SYSTEM (MIS) AND CONTRACEPTIVE LOGISTICS MANAGEMENT SYSTEM (CLMS)

Session 1: Record Keeping and Management Information System (MIS)
Session 2: Contraceptive Logistics Management System (CLMS)

Module Nine - Session 1: Record Keeping and Management Information System (MIS)

Time: 45 Minutes

Learning Objectives:

By the end of this session, participants should be able to:

- Describe the MIS
- Mention the importance of MIS
- State the reasons for accurate record keeping and its implication for data quality
- List the advantages of Record Keeping
- Explain the disadvantages of NOT keeping records
- Explain the content of the various national record keeping forms

Session Overview

- Description of the MIS
- The importance of MIS
- Reasons for accurate record keeping and its implication for data quality
- Advantages of Record Keeping
- Disadvantages of NOT keeping records
- Content of the various national record keeping forms

Methods

- Brainstorming
- Discussion
- Lecture
- Group work

Materials

- Flip chart stand/paper
- Markers
- Laptop
- Multimedia Projector
- Various MIS tools

CONTENT

Management Information System (MIS) is an organized way of recording, collating, and interpreting information for planning and decision-making. Facility managers and supervisors will need to be equipped to monitor the quality of services. Monitoring activities would include assessing adherence to service protocols, checking for contraceptive stock outs, and reviewing service statistics, such as the number of FP clients referred to other services.

This module discusses the importance of Record Keeping in FP Programme, information needed to measure Programme Success and inform programme or service delivery Improvement.

Importance of MIS

The effective management of any programme depends on availability of information for optional decision-making. In this regard, the setting up of MIS will provide the programme management with necessary information for decision. The quality of management decision-making will be determined by the quality of MIS; it is essential for effective programme management. Other uses of MIS are:

- It provides feed/back on the performance of the critical functions of the programme. Such feedback allows managers to take corrective actions when problems arise.
- It provides stakeholders with regular assessments of programme performance
- It is useful for measurement of programme output i.e. products or services delivered to programme participants or other such activities viewed as part of programme's contribution to society. Examples are number of clients served, the nature and volume of advocacy or promotional effects, numbers and types of IEC materials produced and distributed.
- It is used in the assessment of programme impact
- It provides answer to specific management and research questions
- It is an important monitoring tool
- It is critical for resource allocation and evaluation.

Advantages of Record Keeping

- Know the total number of client
- Know the number of new clients and old clients to determine the rate of new acceptors and revisits for each method.
- Know the number of female clients attending the family planning clinics at the various locations in the community for comparison
- Use data for assessment, planning, implementation, evaluation e.g.
  - give an account of commodities and determine future needs
  - determine future needs regarding staffing and facilities
  - know the progress of family planning in the community and society
  - use data for future planning
  - use data for research purpose
  - Use for referral purposes

Disadvantages of Not Keeping Record
Provider would not:

- Know the total number of clients served
- Be able to determine the rate of acceptors for each method/procedure
- Be able to compare number of clients with other Family Planning facilities in the community
- Be able to assess or plan for future improvements and evaluate up-to-date progress
- Be able to supply evidence of past work
- Be able to conduct good research due to e.g. lack of statistics
- Give good impression of clinic activities
- Be able to help planners to determine the general needs of the clinic
- Be able to make planning and evaluation easy
- Be able to obtain other adequate information in case a problem of a legal nature arises

MIS TOOLS
MIS tools are used for keeping track of various services provided by the programme and activities performed

Types of National Family Planning MIS Tools

Client Record form/Instruction (Form A)

This form is used to record client's history

Tally Sheets/daily activity summary Forms (Form B1.1 & B1.2)

This is used to record services provided to client at the facility level. Information in this sheet is summed up at the end of every day and this summation should be transferred into the monthly summary sheets.

Monthly Summary Form (Form C1.1 & C1.2)

This form is to be used for compilation of data in the Tally/daily Activity Summary Form, i.e. Forms B1.1 &B 1.2. It should be completed monthly by the responsible health worker in the facility.

Facility Based Referral Form (Form D)

It is used by clinical service providers or outreach workers who provide clinical services to refer a client to a referral centre where further services can be obtained. This form is designed in a way that enable service providers keep track of how many referrals they have made and how many of these referrals have gone to the points of referral and follow-up. It enables providers keep track of clients for follow up purposes.

Quarterly Summary Form (Form E)

This form is used for compilation of data in the Monthly Summary Form (C1.1 & C1.2). It should be completed monthly or at the end of the quarter by the responsible health worker in the facility.

Annual Summary forms (Form F)

This is used for compilation of the data in the quarterly summary form. It should be a summary of all quarterly reports for the year in question.

Outreach activity Form (Form G)

This is used for obtaining a record of reproductive health outreach activities undertaken by individual health worker (peer educator, community health extension worker etc) during the month in question.

Monthly Outreach Summary Form (Form H.1)

This is used for summarizing all reproductive health outreach activities undertaken by individual health workers (peer educator, community health extension worker etc.) during the month in question. This form is filled by the supervising officer, and submitted to the project coordinator, who would use the information generated for programme planning and report writing.

Quarterly/annual Outreach Summary form (Form H.2)

This form summarizes all outreach reproductive health activities carried out by health workers during the quarter of year under reference.

Outreach Referral Forms (Form J)

To be used by clinical service providers or outreach workers to refer a client to a referral centre, where further services can be obtained

Appointment Card (Form K)

This card is used by the service provider to enter appointments for the client.

A copy each of the forms discussed above is appended to this module will be available for practice during the module.

Module Nine - Session 2: Contraceptive Logistics Management System (CLMS)

Time: 30 Minutes

Learners' Objectives

- Explain logistics management
- Describe National Contraceptive Logistics Management system (CLMS)
- Demonstrate use of CLMS tools

Session Overview

- Introduction
- Logistics management
- The National Contraceptive Logistics Management System (CLMS)
- Demonstration of use of CLMS tools

Methods

- Brain storming
- Discussion
- Lecture

Materials

- Flip Chart/Markers
- Flip Chart Stand
- Laptop
- LCD Projector
- Screen
- Handout

CONTENT

Introduction

A logistics management system is an organized system that uses data and information gathered from various communities and service sites to provide a steady supply of consumables that are required to maintain uninterrupted services in those communities. The Contraceptive Logistics Management System (CLMS) provides commodities for effective contraceptive services at all service points, ensuring that all Nigerians are able to receive the contraceptives they need through their service delivery point or community based agents (CBA). This requires that the system guarantees the supply of:

The RIGHT GOODS

In the RIGHT QUANTITIES

In the RIGHT CONDITION

To the RIGHT PLACE

At the RIGHT TIME

At the RIGHT COST

Objectives of CLMS system:

- Enhanced distribution of a complete range of family planning methods through the different levels of the supply system (federal central contraceptive warehouse, state stores, local government store (LGA) and service delivery point (SDP)
- Sustained availability of contraceptives with adequate stock levels to meet demand at all times
- Expand access to a complete range of contraceptive methods with greater choice for clients
- Improved ordering and stock management, ensuring that requests correspond to actual need
- Increased capacity at all levels of the system to manage contraceptive supply
- Adequate flow of essential information on the movement of contraceptives and funds collected through the system
- Improved contraceptive quality throughout the supply chain through procurement standards and proper storage.
- Reduced waste and increased efficiency throughout the supply chain

Contraceptive Security

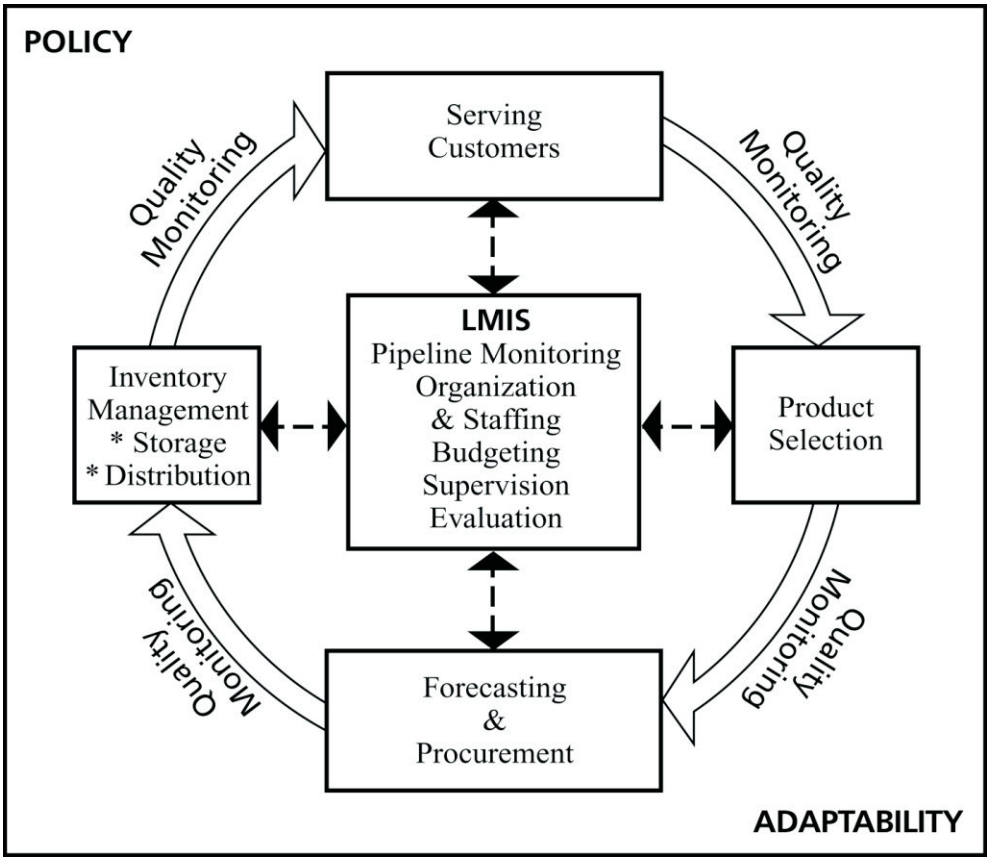
This is guaranteed by a program's ability to:

- Accurately estimate requirements
- Control financial resources
- Technically procure products
- Distribute products to the customer for the medium to long-term
- Guarantee maximizing quality through good storage practices
- Guarantee maximizing quality through Inventory control
- Ensure maximizing quality through supervision of supplies

Flow of contraceptives through the public sector supply system:

The CLMS focuses on forecasting and procuring the right contraceptive quantities, storing and distributing them through all levels of the health system and delivering them to clients, as displayed on the chart below:

Figure 9.2.1: The National Contraceptive Supply System



Contraceptive Commodities Selection

Selection depends on factors such as the pattern of: clients' preferences, the capacity of service providers to offer wide range of FP methods and the quality of care.

Contraceptive Commodities Forecasting and Procurement

Once the commodities to be procured are determined, the next step is to ascertain the quantities required for procurement. The process of determining those quantities to procure is what is called forecasting. Forecasting is usually done at LGA or state levels and covers a period of more than one year. The following data sources are used to forecast:

1. Logistics data: This is applied in availability of consumption and stock position.
2. Demographic data: this takes into account the population being served and the extent of unmet need for FP in the area.
3. Service statistics: This is very important in forecasting because it helps inform the project managers whether there is the need to recruit more staff to achieve the goals of the forecast or to reduce on expected consumption due to limited staff in the field.
4. Targets: Every service point should have annual targets in volume of services to be rendered, which will derive from LGA and State targets. Once the forecast has been discussed and approved, then a procurement plan is developed.

Contraceptive Commodities Distribution and Storage

The commodities distribution process begins when the commodities are sent from the manufacturers or suppliers and ends when the commodity consumption information is sent to the Central Medical store. An effective distribution system is the pillar of HIV/AIDS commodity logistics management system. Such a system should not only maintain a constant supply of the commodities but also keep the commodities in good conditions throughout the distribution process, minimize losses due to spoilage and expiry, maintain accurate records, reduce theft and fraud and provide information for forecasting future commodity needs.

Contraceptive commodity consumption

The CLMS delivers the correct commodities to the service delivery points. However, efforts in selection, procurement and distribution would be wasted if the commodities are not used rationally. Rational use of the commodities requires that FP clients receive FP methods that are appropriate to their needs and choices, in adequate doses that meet their individual requirements, for the adequate period of time, at the lowest cost to them and their community.

Management Support

The HIV/AIDS commodity logistics management cycle is driven by factors that must be in place for the system to operate smoothly. These factors include competent human resources, sufficient finances to fund the activities and purchase the commodities, a functional logistics management information system that provides vital information for planning, and managerial support in form of supervision and evaluation.

Summary

Prompt and regular remittance of data compiled from good records kept on contraceptive services rendered at service points to the CBA Supervisor helps the CLMS to place orders for adequate quantities of contraceptive commodities from manufacturers, which are then distributed to the service sites to ensure uninterrupted availability of services to clients.

Evaluation

- Explain CLMS
- Mention 4 objectives of the CLMS
- Describe the flow of contraceptive through the public sector supply system

MODULE TEN

RESOURCES MANAGEMENT

Session 1: Clinic Facilities and Requirement

Session 2: Personnel Requirement

Module Ten - Session 1: Clinic Facilities and Requirement

Time: 45 Minutes

Learning Objectives:

By the end of this session, participants should be able to:

- Identify the facilities requirements of an IUD and implant service delivery point (SDP)
- Discuss how their own facilities can be made more convenient and accessible to clients
- Discuss their concerns regarding provision of IUD and implant services at the service delivery points.

Method:

- Discussion
- Lecture
- Group work

Materials:

- Handouts
- Flipchart stand/paper
- Markers
- Laptop
- LCD Projector

CONTENT

Facility Adaptation to meet IUD and Contraceptive Implant Service Provision

IUD and Implant services can be provided in most existing clinic environments. The only special need for these reversible long-term contraceptive methods' use is an area for insertion/removal procedures. Physical examination and counselling session facilities are the same as for other methods.

If both the programme manager and health personnel consider the various aspects of implants when arranging the physical facilities, both the clinic and the user will benefit. Since discussions about contraceptive options include intimate questions regarding reproductive histories, as well as possible physical examination, most women would appreciate curtains in examining rooms and a private room or corner where personal information can be given. Perhaps the traffic pattern can also be designed to facilitate privacy while such examinations or discussions are taking place.

While each clinic has certain limitations caused by actual space available, finances, client load etc, being conscious of the 'best way' to organize the physical environment should lead to creative solutions, even when resources are limited. If the clinic set-up is too uncomfortable to the woman, she may simply avoid returning.

Certain 'areas' and resources are recommended for IUDs and implants to be offered successfully. An 'area' may serve more than one function. Areas to be designed include:

- Reception area for admitting clients – the client's first clinic contact
- Waiting area – may also serve as an informational resources location
- Counselling area - or perhaps two areas, one for group presentations and another for private discussions;
- Examination procedural area – as private as possible
- Surgical scrub area/area for cleaning, sterilizing instruments and equipment
- Area for insertion/removal procedures
- Post-procedure rest area
- Storage area - cool, secure, and well-ventilated
- Suitable area for office work, maintenance and storage of client records and informational materials
- Suitable washing facilities and toilets for client and staff
- Water and light sources

Group Work

Participants should reflect on their facilities and identify problems that need adaptation and improvement to meet IUD and implant insertion/removal needs.

SUMMARY

Requirements for the establishment of implant services are modest and include clinic adaptation to provide a clean environment for insertions/removals and privacy. Other procedures (physical examination and counselling) are the same as for other methods. Adjustments in clinic hours may have to be made to get male partners attend on special days.

EVALUATION

- How are IUD and implant services different from other family planning methods?
- What adjustments could be made at your facility to be able to provide implant services?

Module Ten - Session 2: Personnel Requirement

Time: 1 hour

Learning Objectives:

By the end of this session, participants should be able to:

- Identify the tasks needed in a facility providing IUD and implant services
- Discuss the staffing patterns in their own facilities and how these tasks can be fulfilled
- Analyse the training needed in order for staff to properly fulfil each role

Session Objectives:

- Identification of the tasks needed in a facility providing IUD and implant services
- Staffing patterns in their own facilities and how these tasks can be fulfilled
- Analysis of the training needed in order for staff to properly fulfil each role

Method:

- Discussion
- Lecture
- Group work

Materials:

- Handouts
- Flipchart stand/paper
- Markers
- Laptop
- LCD Projector

CONTENT

Personnel Requirements

In general, the IUD and implant methods require attention to programme services to achieve optimal results. This is especially true during the introductory phase, but remains important, especially regarding counselling services, which are often most needed during the first several months after each client begins IUD and implant use.

The actual number of people necessary to perform the functions in a clinic offering IUD and implant services will differ depending on such things as clinic size, other services provided, service hours including special fixed times for removals, and case load. However, the functions to be performed should not vary greatly. Focusing on task to be done rather than absolute number of personnel to hire should make staffing plans more relevant.

The following list shows functions that should be allocated to personnel on a regular basis. Several functions may be done by the same person, or, in some cases, several persons may have responsibilities. This list can be used practically within a clinic: after reviewing the list, add the position (or an individual name) of the person in your clinic who would be responsible for carrying out the function.

Group Work
Write in the position and individual name of the person in your clinic who is (or will) be responsible for carrying out the function.

Responsibility Assignment

Functions needing assigned responsibility

1) Manage clinic_____
2) Supervise staff_____
3) Clean the facility_____
4) Order IUDs, implants and other supplies_____
5) Store and log in implants and other supplies_____
6) Keep books, financial data_____
7) Schedule appointment for clients_____
8) Counsel clients (at various points in time)_____
9) Provide informational materials to clients and assure continuing availability of these materials for clients and staff_____
10) Take and record medical history of clients_____
11) Perform and record physical exams_____
12) Screen clients for medical contraindications_____
13) Sterilize instruments and linen (aseptic techniques)_____
14) Insert and remove implants_____
15) Schedule follow-up visits_____
16) Follow-up clients who do not return for appointments_____
17) Be responsible for any outreach activities to recruit new clients_____
18) Assess user satisfaction with implant services_____
19) Maintain medical records, filling_____
20) Collect and report data _____

Clinic Supervision

Supervision of clinic personnel is essential to the program's success. Supervisors are responsible for ensuring that work in which they themselves are skilled, which is being carried out by others under their jurisdiction, is being done efficiently and effectively. The job of a supervisor is demanding. It requires an understanding that the process is one of support, guidance, and direction in relation to the worker, and not one of authoritative control. At the same time, a supervisor must develop the ability to carry out the job by dealing with and overcoming all obstacles and deterrents that come from sources above and around him/her which practise authoritative control in relation to the supervisory activities.

The supervisor should be responsible for:

- Helping workers plan, implement and evaluate their work
- Providing technical advice in service and management areas
- Handling grievances and disciplinary problems involving workers
- Stimulating and evaluating performances
- Providing continuing education
- Serving as a link between workers and the central authority for health

Ideally supervisors should receive training in the theory and practice of supervising. Good supervision is often a major unmet need in health care services.

SUMMARY

The personnel required to provide IUD and implant services depend on choice, size and other services provided. Staff should be allocated clear-cut function each day and the supervisor should ensure the tasks are properly performed and supervision requires training.

EVALUATION

- List 6 tasks to be completed on a daily basis and who should execute them?
- What are the responsibilities of a supervisor?

Clinical Incident Reporting, Investigation and Management in family planning

A clinical incident is defined as an event or circumstance that could have unintended harm to a client or a compliant, loss or damage. Client safety has been, and still is, a cause for concern in health-care systems all over the world. Family planning services is a clinical procedure which involves the administration of medicines or devices by clinicians who have the requisite clinical and counselling skills to deliver these services. Incident reporting systems have been a key tool to improve safety and enhance institutional/organizational learning from documented incidents in a range of high-risk organizations

Risk grading an incident

In addition to determining the type of incident that has occurred, it is important to distinguish incidents by their actual or potential impact on a client. This is because the actual or potential consequence of an incident determines a proportional response – or level of investigation. The impact of an incident on a client is determined by assigning it a score based on its potential or actual consequences.

Consequence score	1	2	3	4
Descriptor	**Minor**	**Moderate**	**Major**	**Critical**
Actual or potential client impact	Minor injury or illness, requiring minor intervention, whereby it is a single isolated incident	Moderate injury requiring professional intervention, whereby it is a single isolated incident	Major injury leading to long-term incapacity /disability Mismanagement of client care with long-term effects	Incident leading to death Multiple permanent injuries or irreversible health effects

Risk-grading matrix

A risk grading determines the proportionate response to an incident. There are 3 levels of investigation that correspond with each possible risk grading. The personnel who conducts the investigation and the process for ensuring investigation is received and learning disseminated also depends on the risk grading.

Level 1 investigations (for **Red incidents**) are very serious and will require the highest local government officer to be notified. It will require the following actions and documents: An investigation report including root cause analysis, action plan and client case notes

Level 2 investigations are for incidents that have received a consequence score of 2, and have been assigned an **Amber** risk rating**.** Local procedures for investigation should describe 'what, who, where, why, how and when' the incident occurred, and make recommendations for remedial action.

Level 3 investigations are for incidents that have received a consequence score of 1, and have been assigned a **Green** risk grading. Isolated green incidents do not require investigation. However, if a trend of green incidents emerges this may require investigation.

Clinical Incident Reporting Format

Instructions: This form requires quick and basic information about the incident, it is NOT an investigation. It should be completed and appropriately reported to the in charge of the Health clinic or relevant state FP Coordinator immediately following an incident.		
1. Initial details	Date of incident (dd/mm/yyyy)	
	State / LGA	
	Name of Health facility or hospital	
2. Client details	Name of client	
	Sex	
	Age	
	Gestation (weeks) if pregnant	
	Service	
	Eventual outcome (for adult) eg fatality, no fatality or unknown	
	Eventual outcome for neonate (if applicable)	
3. Incident type	Was this a clinical incident? Eg Infection, expulsion of contraceptive device, drug reaction, uterine perforation, bleeding from insertion sites etc	
	Details	
	Did it relate to a product?	
	Product name	
	Product type	
4. Risk grading	**Minor, Moderate or severe/Critical**	
5. Primary provider information	Primary provider name	
	Role/designation	
	Contract of staff (fulltime/Part-time/intern)	
6. Brief description	Brief Description (2-3 sentences)	
	Transfer? To PHC, CHC, General hospital or Teaching hospital or private hospital	
7. Submission	Date reported	
	Reported by	
	Reported to	

LIST OF RESOURCE MATERIALS

1. *Faculty of Sexual & Reproductive Healthcare Clinical Guidance - progestogen-only Implants, Intrauterine Contraception Feb 2014 (www.fsrh.org/pdfs/CEUGuidanceProgestogenOnlyImplants.pdf)*

2. *UK Medical Eligibility Criteria for Contraceptive Use 2009 (www.fsrh.org/pdfs/UKMEC2009.pdf)*

3. *Family Planning A Global Handbook For Providers 2011 Update, 'The Green book', (http://whqlibdoc.who.int/ publications/2011/9780978856373_eng.pdf?ua=1)*

4. *Medical eligibility criteria for contraceptive use Fifth edition (http://www.who.int/reproductivehealth/publications/family_planning/Ex-Summ- MEC-5/en/)*

5. *Summary of Product Characteristics-Implanon (www.medicines.org.uk/emc/medicine/5382/SPC/)*

6. *Summary of Product Characteristics – Nexplanon (www.medicines.org.uk/emc/medicine/23824/SPC/Nexplanon+68+mg+implant+for+subdermal+use/)*

7. *New Zealand Consumer Medicine Information - Jadelle (www.medsafe.govt.nz/consumers/cmi/j/jadelle.pdf)*

8. *Jadelle Summary of Product Characteristics (http://apps.who.int/prequal/whopar/whoparproducts/RH017Part4v1.pdf)*

9. *Reproductive Health Supplies Coalition - Contraceptive implants (www.path.org/publications/files/RHSC_implants_br.pdf)*

10. *MSI International Purchase Requisition Form January 2014 (for implant insertion and removal kits)*

11. *World Health Organisation Department Of Reproductive Health and Research (WHO/RHR) and John Hopkins Bloomberg School of Public Health/Centre For Communication Programs (CCP), Info Project.*