DEMOGRAPHY

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DEMOGRAPHY

"Demography is the scientific study of human population is called as demography."

It is concerned with change in size of population, its composition and distribution in space.

ELEMENTS OF POPULATION

- 1) Change in size of population.
- 2) Structure of population.
- 3) Geographical distribution.

DEMOGRAPHIC PROCESS

- 1. Fertility
- 2. Mortality
- 3. Marriage
- 4. Migration
- 5. Social mobility

DEMOGRAHIC TRENDS IN INDIA

- With the population of more than 1.15 billion.
- India is the second most popular country in world, next to china. With only 2.4% of the world's land area, India is supporting about 16% of the world population.

Cont...

 India's population has been steadily increasing since 1921. The population numbered 238 million in 1901, doubled in 60 year to 439 million (1961); doubled again, in only 30 year to reach 1.53 billion by 2050. This will make then most populate country in world.

AGE COMPOSITION

 The proportion of population below 15 year (33 percent) is showing decline, where as the proportion of population age above 65 (6.77%) is increasing. This trends is continue in time to come.

SEX RATIO

- Sex ratio is define as "the number of females per 1000 males."
- One of basic demographic characteristics of the population is the sex composition.
- In this study analysis of sex composition plays a vital role.

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- It is affected by differentially in mortality conditions of males and females.
- In the country from 1951, ratio was per 1000 male, the ratio of female was 946 where as. in 2001 it is about 933 but kerla has sex ratio of 1058 female per 1000 per male in 2001. It is only state having favorable to female.

DEPENDENCY RATIO

The proportion of persons above 65 year of age and children below 15 year of age are consider to be dependent on economically productive age group i.e.15-64 years of age.

DENSITY OF POPULATION

- One of important indicator of population concentration is density of population.
- "Density is define as number of persons living per square kilometer."
- Density of population in india in 1951 were 117 per sq.km where as in 2001 were 324 per sq.km

FAMILY SIZE

It means to total number of person in a family. In demography, family size means the total number of children, a women has born at a point in a time (bet 15-45 year) i.e "child bearing age."

Contin...

The family size depends upon no of Factors i.e duration of marriage, education of couple, no. of live birth or living birth, preference of male children, desire family size etc.

URBANIZATION

Growing urbanization is recent phenomenon in developing countries, the proportion of urban population has increase from 10.84%in 1901 to 28.4%in year 2005-2006.

LITERACY AND EDUCATION

A person been as literate if she/ he can read and write with understanding in any language. And a person who can read but can not write he is not consider as literate. The literacy rate of India for 2001 census 65.38% with male literacy rate of 76% and female literacy rate of 54%

LIFE EXPECTANCY OR EXPECTATION OF LIFE

- At given age, is average years of age which a person of that age may be expected to live according to mortality pattern in that country.
- Life expectancy at birth of india for year 2000 is 62.8 year for male and for female 63.8 year females lives longer than male.

FAMILY PLANNING AND WELFARE



FERTILITY

- Fertility is mean the actual bearing of children.
- A women's reproductive period is roughly from 15 to 45.
- Years a period of 30 years, information on fertility in India indicates that an average of about 3-4 children if her married life is uninterrupted.

CONT....

- Fertility depends on several factors. The higher fertility in India is attributed to universality of marriage, low level of literacy, poor level of living, limited use of contraceptive and traditional way of life.
- The total fertility rate of India for year 2006 is 2.9%

CONCEQUENCES OF POPULATION GROWTH

Because of population explosion have effect on social, biological, economic and health consequences of population growth are outlined below.

1)Biological concequences: Population growth affect size and age composition.

A growing population is young population.

CONTI.....

- A) Young population is dependent population depending burden is very high in India.
- B) There is greater pressure over paediatric care and MCH services.
- C) Young population needs support of providing social and welfare services like education, health and other facility of life is declined.

2)ECONOMIC COSEQUENCES

Population growth has adversly affected per capita income more than 40% of Indian population live below poverty line. Poverty lead to sickness and sickness lead to poverty. It is affect standard of living.

3)SOCIAL CONSEQUENCES

There are number of social problem becoz of population exposure:

- 1) Poor job opportunities.
- 2) Inadequate schooling facilities.
- 3) A high percentage of illiteracy.
- 4) Inadequate or sub- standard housing.
- 5) Urbanization.
- 6) Over crowding.
- 7) Increase deterioration in law and order situation.
- 8) Total dissatisfaction with political and other institution

HEALTH CONSEQUENCES

- 1) Higher infant and child deaths.
- 2) Higher maternal deaths and sickness.
- 3) Lower expectation of life.
- 4) Lower level of nutrition.
- 5) Environmental hazards: pollution of water, food, soil, and air.
- 6) Poor quality and quantity of health care services: more doctor's, more nurses, more hospital beds and more resources are needed.

BIRTH CONTROL

It means both spacing and limiting pregnancies. It may be described as "children by choice, not by chance". It is identified chiefly with contraception.

OBJECTIVE OF FAMILY WELFARE PROGRAMME.

- 1)To avoid unwanted pregnancy.
- 2)To achieve wanted pregnancy.
- 3)To space out successive pregnancy.
- 4)To limit size of family.
- 5)To counsel the parents about risk of pregnancy, based on risk factor like age.
- 6) To give parents about teaching.

CONT.....

- 7) To give health and sex education.
- 8) To give premarital counselling.
- 9)To help unmarried mother.
- 10) To help for adoptation of babies.
- 11)To give dietary advice.
- 12) To give antenatal and intranatal, postnatal care.

FAMILY WELFARE

- The term "family welfare" is much broder in scope than "family planning". It is related to quality of life.
- It include education ,nutrition, health, employment,
- women's welfare and rights, shelter, safe drinking water.
- All vital factors associated with the concept of welfare.

CONTU.....

- In 1977, the Govt. of India redesignated the "NATIONAL FAMILY PLANNING PROGRAMME." as the "National family welfare programme." and also changed the name of the ministry of health and family planning to ministry of health and family welfare.
- It is aimed at achieving a higher end i.e. to improve the quality of life of the people

OPERATIONAL GOALS

- 1) To promote the adoption of small family size norm, on the basis of voluntary acceptance.
- 2)To promote the use of spacing method.
- 3) To ensure adequate supply of contraceptive to all eligible couples within easy reach.
- 4)To arrange for clinical and surgical servieces so as to achieve the set target.

SMALL FAMILY SIZE

Health and happiness of families depend greatly on the family size, i.e number of children.

"sons or daughters-two will do."

The average family size in india is 2.9 (2006). The concept of small family norm of 2 children (male and female)

SPACING OF CHILDREN

Family planning involves not only limitation of family size, but also child spacing. Spacing children at least 3 years apart gives the child a healthier start in life. And the mother enough time for her body to recover from maternal deprivation resulting from the previous pregnancy.

CONT.....

Spacing of children is an essential factor in the protection of the health of the mother and child. The current emphasis is on spacing of children for those who have not yet completed their small family norm, and for the others "terminal method" are being advocated.

CONT....

- There are over 190 million married couples in the reproductive age group in india today. They must accept. They must accept the small family norm of 2 children.
- Statistical indicate that during the year 2005-06, not more than 56.3% of the eligible couple were protected by effective contraceptives this level has to be raised upto at least 60% and to achive the demographic goal of net REPRODUCTION rate.

ELIGIBLE COUPLES

- The term eligible couple means target couple.
- The woman is in the reproductive age group (15-44 years).
- It is about 180 eligible couples per1 000 population.
- Newly married couple and those already having 2 children are the target of motivational efforts.

CONTRACEPIVE METODS

- 1.SPACING METODS 2. TERMINAL METHOD
- A) FOR MEN: A) FOR MALE: VASECTOMY
 - 1)CONDOM B) FOR FEMALES: TUBECTOMY
 - 2) WITHDRAWAL
- B) FOR WOMEN:
 - 1) INTRAUTERIN DEVICES (COPPER T)
 - 2) HORMONAL CONTRACEPTIVES
 - a) ORAL PILL b) INJECTABLES c) SUBDERMAL;
 - 3) DIAPHRAGM
 - 4) FOAM TABLETS, JELLY, CREAM
 - 5) RHYTHM METHOD (SAFE PERIOD)

FAMILY PLANNING

Family planning



Condom



Pills



Spermicides



Implants



Diaphragm



Injections



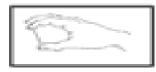
Female condom



IUD



Breastfeeding



Mucus method

CONTRACEPTIVE METHODS

- Contraceptive means preventing
 - a) Union of ovum and sperm
 - b) Supressing ovulations
 - c) Interfering with implantation of the fertilized ovum in the uterus. The various contraceptive method are based on these principles. The ideal contraceptive is defined as one which is free from side effects, safe reversible, easily available and cheap. No single method as yet meet all these requirement.

INDICATIONS FOR CONTRACEPTIVE

- 1) Population control.
- 2) To avoid unwanted pregnancy.
- 3) To space between two children.
- 4) To give size of family small.
- 5) To maintain health of mother and child.

BARRIER METHOD

- 1. CONDOM OR NIRODH:
 - 1) it is one of oldest and most commonly used contraceptive, used by men.
 - 2) it is thin rubber sheath used by man during sex, it is safe and effective method of birth control.
- 2. Characteristic of condom: 1) it is made up of latex rubber i.e 0.03-0.07mm thick.
 - 2) it is available in two i.e class 1 and class 2.
 - 3) it may be dry or lubricated.
- 3. 4) it may be natural latex rubber colour or any artificial colour may be added.

How Condoms Work Male and Female Types



ADVANTAGES:

- 1)It is easily available, chief, can obtain without prescriptions.
- 2)Doesn't required medical help for use.
- 3) Protect from unwanted pregnancy.
- 4) Protect from STD and AIDS.
- 5)It protect women from PID.
- 6) No side effect.

DISADVANTAGES:

- 1) It may reduce sexual pleasure.
- 2) A new condom must be used each time.
- 3) It may slip off or tear (rarely), if instruction are not followed carefully.
- 4) There are chances it may have hypersensitivity reaction

INSTRUCTION:

- 1) Base of condom should be supported carefully before.
- 2) Withdrawl to prevent condom sleeping off.
- 3) Discard after singal use.
- 4) Failure rate about 14

FEMALE CONDOM(FEMIDOM)

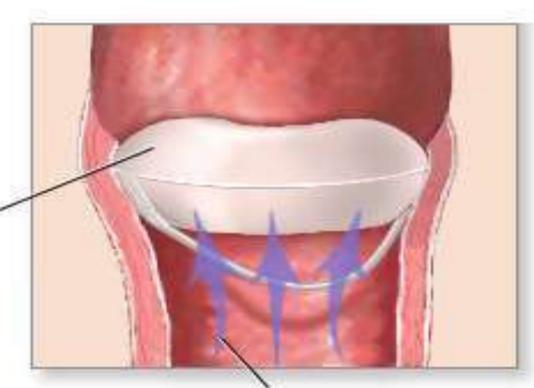
- 1) This is the latest and simple means of birth contol, specially made for women.
- 2) Female condom protects women against pregnancy and STIS
- 3)Femidom is 34% more successful than male condom.

VAGINAL SPONGE

An ancient method of birth control is placing sponge soaked in vinegar or olive oil in the vagina. Though this technique is not in use these day, still some sponges are available in the market. Vaginal sponges has limited uses and limited uses and effectiveness.



Sponge absorbs sperm, preventing them from entering cervix



Sperm



Spermicide inside diaphragm kills sperm

adam.com

DIAPHRAGM:

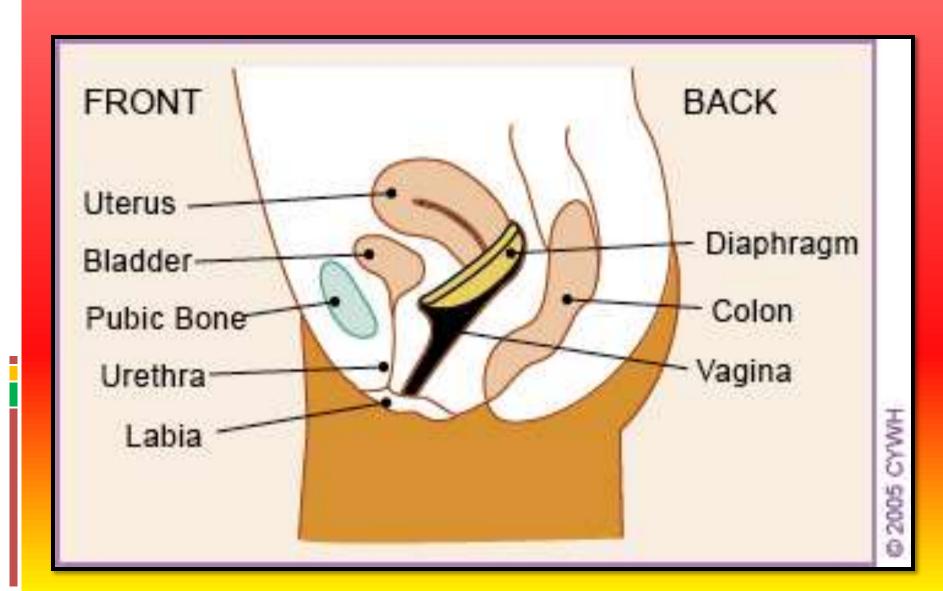
 This device is known as DUTCH CAP. Used in combination with spermicidal jelly or cream.

CHARACTERISTIC:

- 1) It is made of soft rubber.
- 2) shape: like a dome shape.
- 3)size: 50-105mm in diameter.
- 4) most common size used is 70-80mm diameter.

Contraindication: 1) 3-4th degree uterine prolapse.2) poor vaginal muscle.3)short anterior vaginal wall 4)sever cystocele and rectocele. 5)Psycological not accepted to use diaphragm

VAGINAL DIAPHRAGM



ADVANTAGES:

- 1)It is effective if properly used.
- 2)Used by women who wants to control pregnancy.
- 3)It can be used during menstruation.
- 4)It is entirely harmless and free from side effects.
- 5) It can used during lactation.
- 6)It need additional lubricants during coitus because, it is used along spermicidal

DISADVANTAGES:

- 1) It require motivation.
- 2) It is expensive.
- 3) Side effect like allergic reaction, vaginal infection, irritation may occur.
- 4) Effectiveness if it is used properly with spermicide.

CERVICAL CAP

It is a barrier contraceptive method.

CHARACTERISTICS:1) It is made up lubricant or polythene plastic

- 2) size available in 3 size
- Large:36mm
- Medium:30mm
- small:24mm
- 3) selection of cap.
- 4) cap removed 6-8 hours after coitus.

CONTRINDICATION

- 1) It is cervical erosions.
- 2)Long or short cervix.
- 3)PID.
- 4)Inability of women to place and remove cap.

ADVANTAGES:

- 1) It gives continuous protection against pregnancy.
- 2) It can be used in presence of cystocele, rectocele uterine, prolapse, poor vaginal musscle.
- 3) It covers only cervix.

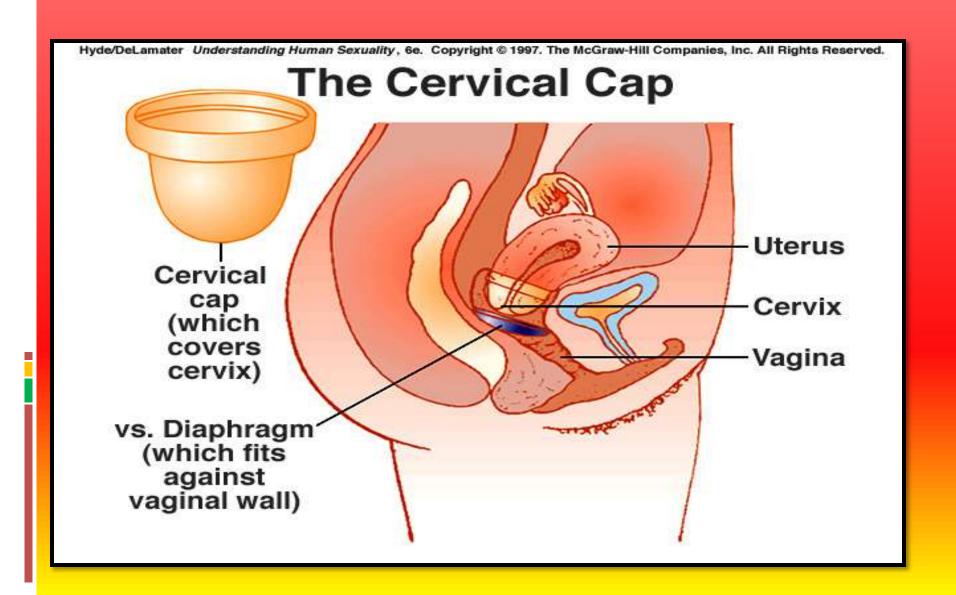
DISADVANTAGES:

- 1) Difficult to remove and insert.
- 2) It need personnel who is trained.
- 3) It is expensive as spermicidal gel.
- 4) It may collect discharge inside cap.

VAULT CAP

- 1)It is combined feature of diaphragm and cervical cap
- 2) made up of rubber or plastic, circular in size.
- 3) it is 50 to 74 mm
- 4)The vault is inserted as same manner as cervical cap.

CERVICAL CAP



COLLEGEN SPONGE:

Used by female along with spermicidal gel.

POLYURETHEN SPONGE: It is mashroom shape used along with spermicidal gel.

SPERMICIDES: 1) It is chemical barrier method, used by female in vagina during sexual intercourse.2) Availability: suppository

COLLEGEN SPONGE



ADVANTAGES:

- 1) No need training and supervision by medical and paramedical person.
- 2) It is easy to use.
- 3) It is easily available.
- 4) No local or systemic side effect.
- 5) It is acceptable.
- 6) Heat generated by foaming tablate heat pleasurable to some of them

DISADVANTAGES:

- 1) May have allergic reaction.
 - 2) May not willing as there is interuption
 - 3) it require privacy etc

INTRAUTERINE DEVICES (IUDs)

it is an contraceptive device own by the female in uterine cavity

Classification: A) first generation:

Eg:1) Leepe's loop

2) Marguites coil

B)Second genration: these IUD containing metal like copper, zink and silver.

Eg:1) copper- T 200

2)Cu-T 380

INTRAUTERINE DEVICE



1) Cu-T 200:

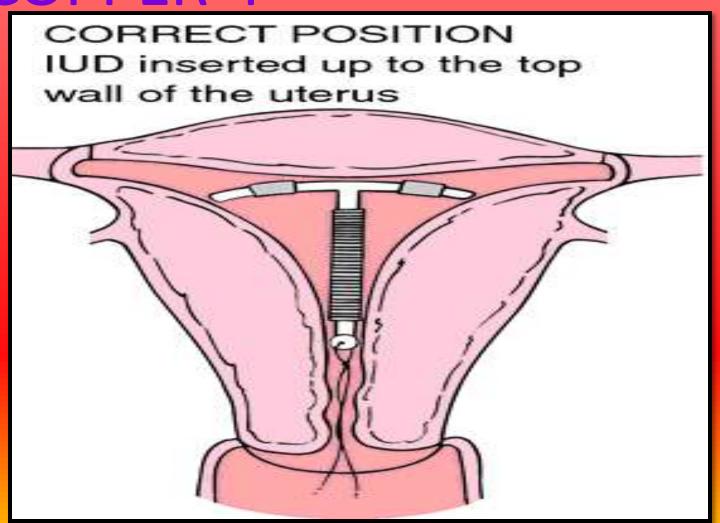
- 1) It is made up of polythene with barium sulphate added for ratio, opacity.
- 2)It is T shaped,86mm long and 32 mm wide, a fine copper wire of exposed surface area 200mm (square) wrapped arround vertical limb of IUD,
- 3) It has two monofilament polythene threads without is coloured.
- 4) The external diameter of inserter is 4.4mm

2) HARMONAL Cu-T:(NOVA –T Cu 200) NOVAGUARD

3)PROGESTRATE IUD SYSTEM:

- 1)It is T shape device it has a reserve in shaft made up of ethylene vinyl acetate co polymeres.
- 2) It contains 38 mgs of progestrone.
- 3)It is effective device for 3to 5 years. It is reduce menstrual blood flow or blood loss by 1/3rd by local action

COPPER-T



ADVANTAGES:

- A) Smaller in size and theirfore easier in insertion.
- B) Low expulsion rate.
- C) Less pain and bleeding.
- D) Greater effectiveness.

TIME OF INSERTION:

- 1)Best time for IUD insertion is between 3 to 7 days of menstrual cycle.
- 2)During this period, insertion is easier and possibility of pregnancy can be ruled out. 3)IUD can also be inserted 1-2 weeks after a normal delivery or clean abortion or within a week after the first menses.
- Provided pregnancy is excluded.
- 4)IUD are commonly inserted during menstruation.

SIDE EFFECTS:

- 1) Backache
- 2) Lower abdominal pain
- 3) Intermenstrual bleeding
- 4) Menorrhagia
- 5) These side effects may be troublesome, but they usually disappear after treatment.
- 6) If any of the side effect are persistent or sever

for instance severe bleeding and pain or infection the IUD may have to be removed.

ADVANTAGES:

- 1)Low failure rate (about 2-3 percent in one year)
- 2) Inexpensive
- 3) Suitable for women who are breast feeding
- 4) "One time method" it reqire no attention after insertion.
- 5) Reversible, i.e IUD can be removed when pregnancy is desired.
- 6) No hospitalization required.
- 7) reversible method for spacing child births

DISADVANTAGES

- 1) May be painful when inserted or remove.
- 2) Side effect: most associadted either with intermenstrual bleedind or spotting in the first 3 month.
- 3) 3to 9 per cent of pregnancies that occur with an IUD in uterus are ectopic.

CONTRAINDICATION FOR IUD

- 1) Irregular or heavy menstrual bleeding.
- 2) Dysmenorrhoea
- 3) PID
- 4) Cervicitis and vaginitis
- 5) Heart disease
- 6) Stenosis of cervical canal
- 7) Vaginal delivery or caesarean section in last 6 wks

HORMONAL COTRACEPTIVE

- These may be classified into three groups,
- a) oral pills
- b) Injectable
- c) Subdermal implantsa
- A) ORAL CONTRACEPTIVE PILLS: 1)It is combination of oestrogen and progestron.2)It is popular and known as oral pills. It is most effective and reversible method of contraception.3) They are suitable for spacing method for young people below age of 30 yrs.

TYPES: Mala-N and mala-D, both containing

Levonorgestrel0.15mg

Ethinyl estradiol..... 0.03 mg

ACTION:

It inhibit the ovulation.

SELECTION OF PATIENT:1) clinically patient should not have DM, CARONARY ARTERY DISEASE, THROMBOPLEBIITIS, MIAGRAINE DEPRESSION, AND CONTRAINDICATION FOR ORAL PILLS.

- 2)CLINICAL EXAMINATION: Measurement of HT, WT,BP,BREAST EXAMINATION, AND PAP SMEAR.
- 3)Pelvic examination: PID.
- 4) Labrotary investigation: CBC,URIN ANALYSIS,LIPID PROFILE etc.

METHOD OF USE

- 1) Pills are taken from 5th day of m.c once a day for 21 days.
- 2) Next packet is started on 5th day of next m.c or 7th day of last period.
- In case there is persistent amenorrhoea and this brand is change one without lower progestron content, if women forget to take a pills, she should take if as soon as she realise that, she had missed one, even if it is adviced to take 2 tab one day if she missed 2 pills consiquently if it is not safe to continuous pill, she should used temporary barrier method

SIDE EFFECT:

- 1) During the first few weeks of use some women may experience mild nausea, dizziness, headech, inter menstrual bleeding, weight gain, tender breast.
- 2) These symptoms are similar to those of early pregnancy and will settle down after the regular use of the pill for 2-3 month.
- 3) In rare case, the pills may induce high blood pressure or causes cardiovascular complication.
- 4)Women shows get herself examined medically within 3 month of taking the pill.

ADVANTAGES

- 1) Almost 100 percent effective.
- 2) No interfernce with sexual intercourse.
- 3) Reversible method.
- 4) women are not fit for pill intake because of certain contraindication

CONTRAINDICATION

- 1) Women over 35 year of age.
- 2) High blood pressure, dm, chronic liver disease or cancer breast.
- 3) CVA.
- 4) Migrain.
- 5) Vericose veins.
- 6) Epilepsy.
- 7) Exessive wet gain at time of menses.
- 8) Kideny disease.
- 9) asthma

FOLLOW UP:

- 1) At 3 month, Bp, wt and enquire about any symptoms.
- 2) Second follow up at 1 yr, check wt, physical examination, breast examination, pelvic, abdomen, lab investigation for CBC,FBS,LIPID PROFILE.
- 3) Annual follow up end of 1 yr ,wt, BP, physical examination and lab investigation

NURSING RESPONSIBILITY

- 1) To take oral contraceptive pills at night becoz it reminds before going to bed.
- 2) If she felt to take tablet at night, she may have follow up next day morning. if she felt for continous 2 days, temporary method of contraception as a precaution condom may be used.
- 3) Even if she is travelling, she must carry tablet.
- 4) May have desire for sexual relationship.

Conti

- 5) She must keep extra packet to continues same brand.
- 6) She should not change the brand.
- 7) If she plan for pregnancy stop tablet but not to plan pregnancy, for 3 to 4 month as effect of harmon on child.
- 8) May use temporary barrier method.

B) INJECTABLE CONTRACEPTIVE

- There are two type of injectable contraceptive currently available,
- 1)Depo-Provera(DMPA)
- 2)Net-EN
- It contain only progestron.
- Depo-Provera is used more widely than Net EN.
- It is given IM injections.
- Depo-Provera having 3 month effect and net EN is given every 2 month.
- > It is very effective as vasectomy and T.L.



NOC 8299 7079-24

Depo-Provera® Contraceptive Injection

medranonogenterone accuse rejectable suspension, USP

150 mg per mL

End Perhiad Sarrya

For Province of Street, Street

PHARMACIA

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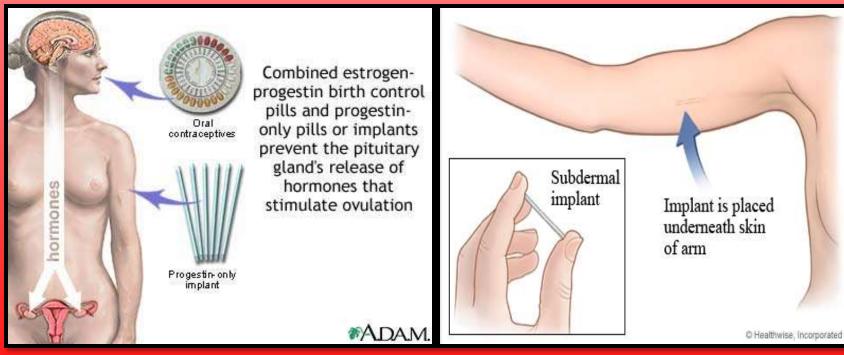
DISADVANTAGES:

- 1) Bleeding heavily.
- 2) Amenorrhea.
- 3) Irregular bleeding.

METHOD: REVERSIBLE METHOD

- C) SUBDERMAL IMPLANT:
 - 1) "Norplant" is highly effective reversible, oestrogen free long acting, contraceptive.
 - 2) It contain only progestron (levonorgestrel).
 - 3) It is implant subdermally.

CONT.....



FOLLOW UP:

Studies at the end of 2yr showed that nor plant is a safe and acceptable contraceptive despite menstrual bleeding.

D) POST COITAL CONTRACEPTION

Post coital contraception is advocated as an emergency method.

Ex: After unprotected intercourse, rape or contraceptive failure.

- TWO METHOD ARE AVAILABLE:
- 1) HORMONAL: more often a hormonal method is preferable.
- Levonorgestrel is dose of 0.75mg is take as soon as possible or within 72hr, of unprotected sexual intercourse, and second dose is taken 12 hr after the intake of first dose or two tablets(1.5mg) are taken together as soon as possible or within 72 hr.

CONTRACEPTIVE PILL



CONT.....

- It is not a regular contraceptive pill, nor an abortion pill. Emergency contraceptive pill have been included in national family welfare programme since 2002-03.
- 2) IUD: The simplest technique is to insert copper IUD within 5 days unprotected sex.

VAGINAL DIAPHAGM

It is a soft rubber dome with a coiled spring rim.

- It made in various sizes ranging from 50 to 105mm.
- It is important that women be fitted with a diaphragm of the correct size.
- Size 70-80mm accommodate most cases. The diaphragm inserted into into the vagina.

Prior to sexual intercourse, where it cover the cervix completely and prevent the spermatozoa from entering the uterus.

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- It must remains in place for at least 6hr after, intercourse.
- To increase its effectiveness, a contraceptive jelly and cream should be used within the diaphragm.
- The jelly or cream is smeared on both the sides and a teaspoon of the same jelly is also placed inside the cup.
- The failure rate of diaphragm with jelly is 12 percet among women using this method for 1 year



ADVANTAGES

- 1. Does not interfer with sexual intercourse.
- 2. Comparatively cheap.
- 3. If properly used quite effective.

DISADVANTAGES:

- 1. A doctor or nurse is require to determine the proper size and fit it initially.
- 2. It is difficult to educate the illiterate women to used the diaphragm.

CONT.....

- 3) Not quite suitable if the vaginal muscles do not have enough tone.
- 4) After use it must be washed dried and stroe care carefully in between use.

FOAM TABLET:

- These are vaginal tablet containing a spermicide agent (nonoxynol-9).
- In contact with water or moisture the foam tablet generate a thick foam.
- A woman put a tablet moistened with water deep into her vagina, near to the external opening of the cervix 5to 10 min, before sexual intercourse.
- The foam enmeshes the sperm and its mobility; the spermicide agent kills the sperm.



ACTION:

- The action of foam tablet is both physical and chemical.
- It is more effective when used with condoms at the same time.

ADVANTAGES:

- 1) Easy to use.
- Good for women who has sex, only once in a while.
- 3) Usually no side effect.
- 4) Does not interference with sex.

DISADVANTAGES:

- 1) Occasional side effect include irritation or burning in the vagina.
- 2) Not an effective contraceptive (failure rate is about 20 percent) more effective when used with a condom.
- 3) Deteriorates under condition of improper storage.

CREAM AND JELLIES:

- 1) This are chemical contraceptive containing the spermicide, "nonoxynol-9".
- 2) A measure quantity of the cream or jelly is introduced into the vagina by a special "applicator." just before sexual intercourse.
- 3) At body temperature, they melt spread in the vagina and provide a thin film of a chemical barrier.
- 4) The sperm is destroyed by chemical action. In combination with mechanical contraceptive.
 - (eg: CONDOM OR DIAPHRAGM).
- 5) Cream and jelly are highly effective less protection of all chemical barrier.

Spermicides

foam, creams, jellies and suppositories



RHYTHM METHOD:

- 1) A week before and a week after the menses is considered as the safe period.
- 2) During this period the woman is not fertile because she cannot ovulate.
- 3) As general rule, if the day of menstruation for a woman is a Monday.
- 4) The Monday will be her first risky day. The period between the first risky Monday and last risky Monday will be the unsafe period.

Calendar (rhythm method)

