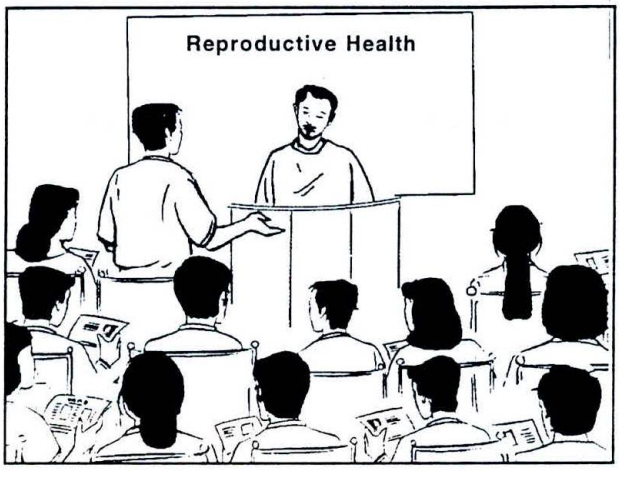
QUALITY CARE IN REPRODUCTIVE HEALTH AMONG FAMILY PHYSICIANS IN KARNATAKA



TRAINING MODULE

INDIAN MEDICAL ASSOCIATION
KARNATAKA
INDIA.

LONDON SCHOOL OF HYGIENE
AND TROPICAL MEDICINE
LONDON, U.K.

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WORKSHOP ON DELIVERY OF QUALITY CARE IN REPRODUCTIVE HEALTH AMONG PRIVATE PRACTIONERS / FAMILY PHYSICIANS IN KARNATAKA

Saturday 5th and Sunday 6th, February 2000

VENUE :
Hotel Gateway,
Residency Road,
Bangalore.

ORGANISED BY

INDIAN MEDICAL ASSOCIATION (STATE HQ)

IN ASSOCIATION WITH

LONDON SCHOOL OF HYGIENE AND TROPICAL MEDICINE, LONDON, U.K.

There is no Registration fee.

Last date for registration is 2Oth January 2000

Register early as number of delegates is limited to 40 only

Send your participation form to the undersigned :

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ROLE OF PRIVATE MEDICAL PRACTITIONERS IN THE PROVISION OF REPRODUCTIVE HEALTH SERVICES

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HEALTH SYSTEMS MANAGEMENT

The private health care sector is an important constituent of India's health care system. It caters to the health and medical care needs of a very large segment of both urban and rural population. In recent times, with increase in the demand for different types of health care, there has been tremendous expansion of this sector. The opening of insurance sector to private enterprises is likely to give further fillip to the development of private health care systems in India. The available information from health care utilization studies indicate that there is high dependence of health care seekers on the private sector and a large proportion of health services are provided by the private institutions and practitioners as compared to the government facilities (Chatterjee, 1988). Several studies indicate that in rural area only 10-20 percent of the people uses PHCs medical facilities (Chuttani et.al.1976; Johns Hopkins University, Department of International Health 1976; Khan 1989). A study by Duggal and Amin (1989) indicates that in over three-fourths (77%) of illness episodes, the patients used private practitioners and hospitals. The evidence also indicates that private health care services are utilized by all socio-economic classes. In another study in Bombay slums, it was found that for short term and minor ailments, patients overwhelmingly used private medical practitioners (Yesudian 1990).

Private spending on health care

Information on household expenditure on health care in India is available from several small and large studies. This is summarized below:

YEAR	PLACE	PER CAPITA ANNUAL HOUSEHOLD EXPENDITURE ON MEDICAL CARE (Rupees)	SOURCE
1958	All India	0.40 to 7.20	Seal 1961,1962,1963
1968-69	Punjab (Rural)	8.11	Parker 1986
1973-74	Punjab (Rural)	16.29	Parker 1986
1973	Tamil Nadu	16.0	Rao 1973.
1973-74	All India (Urban & Rural)	14.05	NSSO 1982
1980	Karnataka (Rural)	54.0	Nichter 1980
1983	Karnataka (Rural)	39.0	Bhatia 1983
1984	Bombay (Middle Class)	240.0	Duggal 1986

1984	Bombay (Lower Class)	176.0	Duggal 1986
1985	Maharashtra (Urban & Rural)	183.0	Duggal & Amin 1989
1990	All India (Urban & Rural)	142.60 (Urban) & 151.81 (Rural) per illness episode	NCAER 1992
1990-91	M.P (Rural)	24.93	George et.al.1994
1993	All India (Urban & Rural)	204.0	NCAER 1995

It could be seen from the above that there are considerable regional variations in private spending on health care, but it is clearly evident that there has been steady increase in personal health care expenditures over the years.

The size of private health care sector in India

It has been reported by the Central Bureau of Health Intelligence (CBHI) that in 1988 private organizations and voluntary agencies owned more than half (56%) of hospitals and approximately one-third (30%) of hospital beds. Here too there are significant inter-state variations. In Kerala, 92 % of the hospitals are owned by private and voluntary agencies and this percentage is 70 in Maharashtra. The latest statistics on the size of private sector are not available, but there has been phenomenal increase in this sector during the last decade and the proportion will be much higher at present. Furthermore, since a large number of institutions, especially small hospitals and nursing homes, in the private sector are not recorded in these health statistics; the official statistics underestimate the size of private health sector.

Another important indicator of the development of this sector is the number of physicians practicing privately or engaged in organizations in private sector. According to the Government of India's estimates based on 1981 census data, out of a total of 2,36,000 qualified allopathic medical practitioners, 69 percent are in the private practice. In addition 90 percent of an estimated 4,50,000 non-allopathic and unqualified practitioners work as private practitioners (GOI 1984). Several studies in India have shown that unqualified or indigenous medicine practitioners practice allopathic system of medicine (Neumann, Bhatia and Murphy 1967; Bhatia et.al 1975; Chuttani et.al 1973). Patients from rural areas or small towns are not able to make a distinction between qualified and unqualified practitioners.

Private health care sector and reproductive health of women

One of the dominant themes of the International Conference on Population and Development held in Cairo in September 1994 was reproductive health. Reproductive health has been defined by the World Health Organization as a "state of complete physical, mental and social well being and not merely the absence of disease or infirmity, in all matters relating to the reproductive system and to its functions and processes"(United Nations, 1984). Thus the three main dimensions of reproductive health among adult women are avoidance of unwanted pregnancies, safe motherhood, and protection against infections and dysfunctions of the reproductive tract, including sexually transmitted diseases. The first dimension has received considerable attention since the inception of official family planning programme in India in 1952; the second was emphasized particularly after the Safe Motherhood Conference at Nairobi in 1986. However, the third dimension i.e. gynaecological morbidity has been badly neglected. Gyneacological morbidity can be defined as structural and functional disorders of the genital tract not related to pregnancy, delivery, or puerpeium. It includes menstrual disorders, reproductive tract infections, cervical cell changes, genital prolapse, and such other conditions as syphilis, urinary tract infections, hypertension, anaemia, chronic energy deficiency (CED), and obesity. The incidence of both obstetric and gynaecological problems in India is quite high. The results of a study carried out in Karnataka indicates that two-fifths (40%) of the women reported at least one morbid episode during antenatal, natal and post-natal period of their most recent delivery (Bhatia & Cleland 1996). A study conducted in Maharashtra shows that more than nine-tenth of the women included in the study had at least one gynaecological problem (Bang et-al. 1989). In a Karnataka study, the laboratory investigations revealed evidence of reproductive tract infections in more than one-half(56 %) of the cases (Bhatia et.al.1997).

So far as consultation for reproductive health problems is concerned, available information in Karnataka indicates that nine out of ten women had at least one antenatal consultation during their most recent pregnancies. A large number of these consultations were with private medical practitioners. Furthermore, out of the total number of deliveries, which took place in hospitals, the majority was in private institutions. Private nursing or maternity home and hospitals are becoming increasing popular even among the rural people (Bhatia and Cleland 1995a). Survey data also indicates that majority of consultations for gynaecological problems are also with private medical practitioners (Bhatia and Cleland 1995b).

Quality of care in the private sector

The rapid expansion of the private sector has profound implications for the present character of Indian health care system and its future course. Private institutions and doctors are patronised even by the rural people because of the poor reputation and inadequacies in the public health care delivery system. People willingly incur substantial expenses rather than availing themselves of cheaper services from government facilities. People appear to prefer private practitioners, perhaps because perceived quality of care is higher an/or because doctor-patient rapport is presumably better. However, there is no clear evidence to support this contention. The existence of private health care services cannot be automatically equated with better quality and efficiency. There is a need to answer this question through empirical evidence, which is relatively scarce. There is an

agent-principal relationship between the doctor and patient, which could result in inefficiency and poor quality because the doctor has an incentive to perform more than the needed services to maximize his revenues. Furthermore, the influence of pharmaceutical companies affects the prescribing patterns and the mix of services or medicines prescribed is not necessarily the most desirable from the cost-minimization point of view. For example, available evidence indicates that there is a very high level of use of injections by the medical practitioners. This is because the patients expect and have faith in injections. Since the placebo effect of injections is very high, doctors consider it worth giving injections rather than losing a patient forever (Bhatia and Cleland 1999). Greenhalgh (1987) in a survey of 2400 patients treated by private and public medical providers, observed that private doctors prescribe a large number of drugs. The study reports that combinations/preparations containing `hidden' classes of drugs are often suggested and anteinfectives are widely and often inappropriately used. The evidence also indicates that surgical interventions in delivery are also on the increase and proportion of cases delivered through episiotomy and caesarian section are significantly higher in private institutions (Bhatia 1995). In a study conducted in Bombay, it was found that private medical practitioners have grossly inadequate awareness of treatment regiment for certain diseases (Uplekar 1989).

In a recent study conducted by the author in Karnataka where private medical practitioners were interviewed in depth and observed while treating women patients for their reproductive health problem, it was found that:

- History taking was inadequate in an overwhelming majority of cases.
- Male practitioners were not examining the patients at all probably because privacy was not adequate.
- Investigations were inadequate and no smears were taken even in a hospital setting, which had an attached laboratory. No scanning was ordered in gyneacological problems where it was clearly indicated.
- Patients were given blind treatment with several drugs.
- Partners were not examined or treatment in RTIs and STDs.
- In reported infertility cases, the practitioners never advised husband to be examined or ordered smear analysis.
- In gyneacological problems, in the absence of laboratory investigations, no specific diagnosis was made and only symptomatic treatment was provided to the patients.

Another phenomenon is self-medication. In a large proportion of illness cases the patients resort to self medication and patients continue to buy drugs which are prescribed earlier (Krishnaswamy, Kumar and Radhaiah 1985, Bhatia and Cleland 1999). The doctors rarely advise the patients about the dangers of self-medication.

Need for Continuing Medical Education (CME)

In order to improve the health status of people, particularly the reproductive health of women, we have to look at the government and private sectors in a more rational manner. While there is no doubt that government health care facilities need to be augmented and improved, the promotion of a viable and efficient private sector is also urgently called for. The improvement in the quality of care is also essential for survival in current competitive environment. This can be done by updating the knowledge, skills and treatment patterns of private medical practitioners through Continuing Medical Education (CME) programmes.

Summary and conclusions

The private sector is an important constituent of India's health care delivery system and with the opening of health insurance sector to private enterprises, it is likely to expand further. Available information indicates that more than one-half of total health institutions, one-thirds of total hospital beds and approximately three-fourths of qualified allopathic practitioners are in the private sector. Personal expenditures on health care have also been increasing over the years and form about 5-10 percent of total household income. The results from several studies indicate that a large proportion of women with reproductive health problems seek consultation with private medical practitioners. Although patients perceive that quality of care in the private sector is better, the available evidence does not support this. There is an urgent need to improve the quality of care provided by the private medical practitioners to sustain patient's confidence and survive in the present competitive environment. This objective, to a large extent, can be achieved through Continuing Medical Education (CME) programmes.

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MENSTRUAL DISORDERS AND ANAEMIA

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Definition

Anaemia is a condition of diminished oxygen-carrying capacity of the blood due to a reduction in the numbers of red cells or in their content of haemoglobin or both.

Symptoms and Signs of Anaemia

The symptoms and signs due to the diminished oxygen-carrying capacity of the blood are common to all types of anaemia.
They include

1. general tiredness
2. shortness of breath on exertion
3. giddiness
4. headache
5. pallor
6. palpitations
7. Oedema of the ankles.

Causes of Anaemia

The anaemias maybe classified primarily into two groups

1. Those due to some failure in the quality or quantity of new red cells being produced in the marrow, and
2. Those due excessive loss of red cells from the circulation either from acute or chronic haemorrage or from abnormal haemolysis.

There is frequent overlap between these two groups since heamorrage leads to iron deficiency, which is the commonest form

Classification

Deficient Red Cell Production
1.Iron deficiency anaemia.
2.Vitamin B12 or folic acid deficiency.
Pernicious anaemia
Macrocytic anaemia of pregnancy
3.Anaemia of myxoedema
4.Anaemia of scurvy
5.Impairment of erythroblastic activity
Aplastic anaemia
Chronic infections, uraemia.

Excessive Loss of Red Cells

1.Heamorrhage.
2.Abnormal heamolysis
Congenital defects in the red cells – sickle cell anaemia
Acquired heamolysis in the blood- incompatible blood transfusion, septicaemias.

INVESTIGATION OF ANAEMIA

Heamoglobin
The average Hb content of normal blood is 14.8g per dl. Range 13.5- 18.0g in men
11.5- 16.0g in women.

Red Blood Count – 4–6 million/ cu.mm.

Heamatocrit Value or PCV – 45 ml per cent

Mean Corpuscular Heamoglobin Conc. – MCHC

It is measure of Hb within the red cells and a low value is taken as an indication of iron deficiency anaemia.

Mean Corpuscular Volume.

Serum Iron

Total Iron Binding Capacity

Serum B12

Serum Folate

IRON DEFICIENCY ANAEMIA

Iron Metabolism

In normal men the amount of iron absorbed daily does not exceed 1 to 1.5mg. Iron is absorbed from the upper small intestine. The body has no way of excreting iron, the uptake is controlled so that iron loss is replaced but accumulation does not occur. The mechanism controlling this delicate balance is not known. The average daily loss of iron is at least doubled in women during the reproductive period of life by menstruation, pregnancy, and lactation therefore daily absorption should be 2-3mg instead of 1-1.5mg.

Aetiology

1. The most important cause of iron deficiency is HEAMORRAGE, which could be heamatemesis, malaena or menorrhagia.
2. Dietary deficiency of iron – poverty, ignorance or food fad.
3. Impaired absorption of iron – achlorhydria gastrectomy or malabsorption syndrome.

Clinical Features

1. Signs and symptoms of anaemia.
2. Koilonychia
3. Dysphagia or Plummer-Vinson syndrome.
4. Blood count- red cell count is only slightly reduced but the Hb content of blood is reduced because the cells are smaller and thus contain less Hb (MCH)

Treatment

1.Oral Iron- Ferrous Sulphate is used most commonly and 60mg of elemental iron is there in 200mg of salt. It is cheapest and as effective as others. But if gastrointestinal symptoms appear other commonly used is Ferrous Fumirate.

Drug interactions for Iron salts: -

1. Methyl Dopa- iron decreases the efficacy of Methyl Dopa.
2. Calcium- iron absorption is decreased with calcium products.
3. Antacids- iron absorption is again decrease.

Prescribing Oral Iron Therapy

To have optimal absorption oral iron should be taken 30 min before food.

200mg of ascorbic acid enhance the iron absorption by 30%.

Avoid taking Calcium rich substances with iron. Only Ca Carbonate preparations can be prescribed along with iron.

Tea and coffee should not be taken atleast for one hour after iron tablets as phytates in them decrease the absorption of iron.

Gastrointestinal upset can be reduced if therapy is started with lower dose like 1 tab daily and slowly increased to 2 or 3 tabs per day.

LIQUID IRON THERAPY

Liquid form of iron is supposed to have the advantage of fewer side effects as compared to oral tabs, however it may lead to staining of teeth. Women who prefer to take liquid form can take it with straw.

PARENTERAL IRON THERAPY

Indications: -

1. Malabsorption syndrome
2. Nontolerance to oral iron.
3. Poor compliance
4. No response to oral iron after 4 weeks and IDA is confirmed.
5. Severe anaemia in last trimester of pregnancy.

Calculation of total dose

250mg deficit of Hb %.

Imferron (iron dextran) can be given both IM and IV.

Jectofer can be given only IM.

ANAEMIAS DUE TO VIT B12 or FOLIC ACID DEFICIENCY

Aetiology

This is primarily a disease of the gastric musoca, which in middle age or beyond fails to produce hydrochloric acid, pepsin and intrinsic factor. The cause of this failure is not known probably it is an inherited factor thus there is a significant familial incidence and it commoner in people with blood group A.

MENSTRUAL DISORDERS

In healthy women, menstruation sets in approximately between the ages of 12 and 14 yr. and persists throughout the reproductive period of life with average rhythm of28 days and duration of flow between 4 and 6 days. It is not uncommon for departures from this normal sequence to occur in women who are otherwise healthy, minor departures are therefore not considered pathological. Geographic conditions, racial factors, nutritional standard, environmental influences and indulgence in strenuous activity can all affect the age of menarche.

a) Classification of bleeding patterns :

I. Ovulatory Bleeding:

- Normal
- Menorrhagia
- mid cycle (mittelschemerz)

II Anovulatory Bleeding :

- Polymenorrhoea (<21 days)
- Oligomenorrhoea (40 days)
- Metrorrhagia
- Post-menopausal
- Metropathia haemorrhagica

III Amenorrhoea

- Physiological
- pathological

PRECOCIOUS MENSTRUATION

If menstruation starts before the child reaches the age of 10, the condition is referred to as precocious menstruation. In precocious puberty (before the age of 8) early menstruation may occur in addition to development of secondary sex characteristics. In clinical practice it is first necessary to establish that the haemorrage is true menstruation and not bleeding caused by injuries, scratching or foreign body.

Diagnosis and treatment

1. Genuine precocious puberty- sympathetic care by the physician.
2. S.C. Inj of longing analogue of GnRH for upto 3 yr. suppresses menstruation.
3. Non- cyclical bleeding suggests oestrogenic ovarian tumour therefore exclude by examination under anesthesia and ultrasound.
4. Occasional bleeding- exclude foreign body by x- ray or u/s.

AMENORRHOEA

Amenorrhoea is defined as absence of menstruation.

CLASSIFICATION

Physiological: Prepubertal
Pregnancy
Lactation
Post-menopausal
These are all self-explanatory.

Pathological: Primary
Secondary.

Primary amenorrhoea is defined when menstruation fails to begin by the age of 16, or in the presence of secondary sex characteristics menses do not start by the age of 14. Secondary Amenorrhoea is defined as amenorrhoea of 6 months or more in women with previous normal menstrual function.

Aetiology

Primary Amenorrhoea

1. Delayed puberty, which is constitutional.
2. Congenital obstructive defects in the lower genital tract – commonest being imperforate hymen.
3. Congenital absence or hypoplasia of the uterus.
4. Congenital aplasia of the ovaries.
5. Intersexualism.
6. Hypothyroidism.

Secondary Amenorrhoea

1. Surgical removal of the uterus or hysterectomy.
2. Tuberculosis.
3. Destruction of both ovaries- radiation and removal.
4. Ovarian failure.
5. Polycystic ovaries.
6. Diseases affecting the pituitary- Anorexia nervosa, pseudocyesis, Sheehans syndrome, hyperprolactinemia, oral pills.
7. Hyperthyroidism
8. Diabetes mellitus

Evaluation

- Psychological factors
- Family history of genetic abnormalties
- Nutritional status
- Sexual activity

MENORRHAGIA

Anyone who has experienced menorrhagia-heavy prolonged bleeding knows how unpleasant, disabling and frightening it can be. Sometimes the bleeding is so heavy that it's necessary to miss work, school or social activities.

Definition

Menorrhagia is defined as excessively heavy or prolonged bleeding. Menorrhagia is essentially a symptom and not in itself a disease. It is a cyclical bleeding at normal intervals which is excessive in amount (80ml) or duration (flow lasting more than 7 days).

Aetiology

1. Those due to some general disease.
2. Those due to local cause in the pelvis.
3. Endocrine disorders.
4. Hormonal.

General diseases causing menorrhagia-

1. thrombocytopenic purpura
2. Severe anaemia.
3. Psychological disorders.

Local causes-

1.Fibroids.
2.Endometrial polyps
3.PID
4.Chocolate cysts of the ovary
5. IUD

Endocrine disturbances

1.Hypothroidism.
2.Estrogens when prescribed for menopausal symptoms.

Hormonal-Dysfunctional uterine bleeding.

This term should be reserved for those patients in whom not only is the pelvic examination normal but in whom there is no other demonstrable extra- genital cause for the bleeding. It is now believed that the aetiology is purely hormonal and that the hypertrophy and hyperplasia of the endometrium are induced by a high titre of estrogen in the circulating blood.

Investigations

1. Complete Blood Count
2. Coagulation profile
3. Thyroid function tests
4. Ultra sound
5. Diagnostic D & C
6. Diagnostic Laparoscopy

Classification of DUB

Anovulatory Ovulatory

Puberty menorrhagia Irregular ripening
Metropathia haemorrhagica Irregular shedding
Premenopausal DUB
IUCD insertion

Following tubectomy

Puberty menorrhagia - is caused by excess or unopposed estrogen and the absence of progesterone in the Anovulatory cycles.

Menorrhagia may be noticed from the very start of menarche but often the initial periods are normal. Puberty menorrhagia occurs in the form of excessive bleeding or normal but continuous bleeding lasting many days. Anaemia may supervene.

Investigations

1. Pelvic or rectal examination preferably under anesthesia.
2. Pelvic ultrasound.

Treatment

1. Progesterone or Oral contraceptives may be given.
   Tab. Primolut-N, Tab Deviry, Tab Regesterone, Tab MPA, maybe given in the dose of 20 to 60 mgm for the first 3 days then reduced to 20 mgm daily for 21 days.
   Oral contraceptives like Tab Novelon or Femilon may be used for atleast 6 months

Premenopausal Menorrhagia

Here again the cycles are Anovulatory and there is progesterone deficiency.

Investigations

1. Pelvic Ultrasound.
2. Blood pressure and blood sugars.

Treatment

1. Styptics like Tab Styptovit, Tab Dicynene, Tab Ethamsyl, or Cap Gynaec-CVP can be tried in doses of 1 tds for 3 to 5 days.
2. D D & C and send the currettings for histopathology.
3. Tab Regesterone, Tab Deviry, Tab Meprate, given in the dose of 20 to 60 mgm (1or 2 tabs tid)
4. Hysterectomy preferably vaginal.
5. NSAIDS like Tab Ponstan 500mgm BD or tid can also be given.

Metropathia haemorrhagica

This is a special form of DUB where one can come to an accurate diagnosis, as its characters are well defined.

Signs and symptoms

1. Most prevalent in women over the age of 40.
2. Irregular and prolonged bleeding in women who have a delayed menopause.
3. Painless bleeding as it is Anovulatory.
4. On PV the uterus maybe symmetrically enlarged with cystic ovaries.
5. On DD&C plenty of polypoidal endometrium is obtained – HPR will show cystic glandular hyperplasia

Treatment

1. DD&C in itself may cure the condition.
2. Tab Progesterone may be given in doses of 10-mgm tid from the 15^{th} to 25^{th} day of the cycle.
3. Oral contraceptive in younger age group.

Irregular ripening

It is an Ovulatory bleeding in which, due to deficient corpus luteal function, endometrium receives inadequate support and break through bleeding occurs before the actual menstruation begins. This bleeding occurs in the form of spotting or brownish discharge. The endometrium reveals incomplete secretary changes.

Treatment is to administer Progesterone in the premenstrual phase or the last 10 days.

Irregular shedding

This is rare and is a self-limiting process and is due to persistent corpus luteum. The menstruation comes on time, but is prolonged and not heavy. Endometrial curettage at the end of menstruation shows persistence of secretary changes along with proliferative endometrium. The treatment is difficult but fortunately it is self-limiting.

ORGANIC CAUSES OF ABNORMAL UTERINE BLEEDING.

1. Cervical polyps and other lesions

Bleeding due to cervical polyps is characteristically slight and intermenstrual and is provoked by defecation or by coitus. Many polyps cause no bleeding at all and are discovered accidentally.

Treatment- Eversion of the polyp.

2. Cervical cancer

Cx cancer may present with intermenstrual bleeding or spotting particularly after coitus. Examination should include a speculum examination under good light, a Pap smear Colposcopy and direct biopsy.

3. Endometrial polyp

Because of their protected position within the uterine cavity they are less likely to bleed. Small polyps cause no symptoms but large polyps may bleed excessively. Uterine cramps are common.

Treatment - Removal with the help of Hysteroscope.

4. Chronic Endometritis and infections

Endometritis is not a common cause of uterine bleeding. Inflammatory disease of the tubes and ovary may cause irregular uterine bleeding.

Treatment - a course of antibiotics preferably with metronidazole.

5. Uterine cancer

Endometrial hyperplasia and adenocarcinoma of the uterine body are usually present with postmenopausal bleeding. Any bleeding after menopause should be investigated.

Diagnosis is by DD&C.

6. Fibroid uterus

Submucous fibroids are likely to cause bleeding and the endometrium overlying the surface is necrotic.

Diagnosis is by ultrasound and Hysterscopy.

POLYCYSTIC OVARIAN SYNDROME

This is an important cause of secondary amenorrhoea in young women and is now regarded as a systemic disorder as there is hyperinsulinism and there is gross disturbance of lipid and carbohydrate metabolism. Basically the pathology is in the ovaries with hyperactivity of theca stromal cells under the influence of LH.

Signs and symptoms

1. Irregularly irregular cycles.
2. Obesity.
3. Hirsutism.
4. Infertility.

Investigations-

1. Ultrasound of the pelvis.
2. Laparoscopy- ovaries may enlarged to 3 to 4 times its normal size.
3. Elevated LH levels.
4. Oral GTT shows abnormal glucose levels.

Treatment

1. Oral contraceptives may be given in those not intending to start a family.
2. Ovulation induction regimes with Clomiphene Citrate tabs like Tab. Fertyl given as 50mgm 1 daily at night for 5 days from the 5^{th} day if the cycle for 5 days. This can be given for 5 months.
3. Surgical treatment- Wedge resection of the ovaries.
4. Latest protocol is to give oral anti diabetic drug like Tab Metformin 500mgm tds or BD for a period of 6 months.

ADOLOSCENT – DYSFUNCTIONAL UTERINE BLEEDING

This is due to hypothalamic – pituitary – ovarian axis dysfunction and gets corrected spontaneously in one to tow years.

Symptoms

Patterns of bleeding:

- Polymenorhoea
- Metropathia Haemorrhagica
- Profuse painless bleeding

Physical examination :

- If hymen is perforated PV to be done
- If hymen is intact – no PV – do PR

Diff. Diagnosis

a) Pregnancy
b) Organic causes of genital bleeding e.g. TB endometritis
c) Endocrinal causes like – Polystic ovarian disease
   - Hyperprolactinemeia
   - Hypothyroidism
d) Other causes
   - Idiopathic thromocytopenic purpura
   - Leukemia

Investigations

- Haemogram
- T_3, T_4 T^{SH}
- Coagulation profile
- Abdominal ultrasound

Management

Mild to Moderate DUB

- Maintain menstrual calendar
- Reassurance
- Vitamin and iron supplement
- Progestine therapy 3-6 months if moderate bleeding

Severe DUB

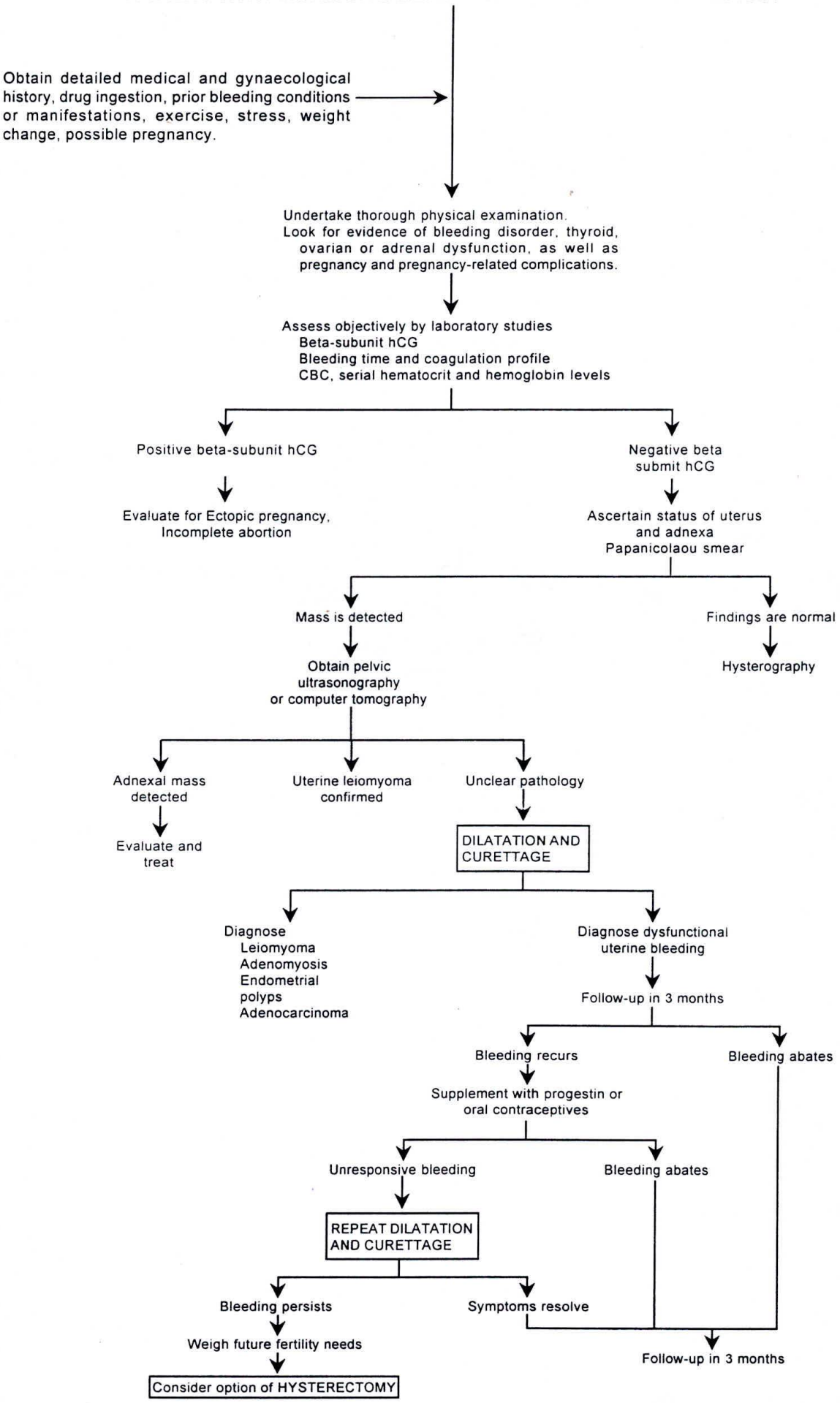
- In addition to above management
- Blood transfusion if low HB%
- D & C when hormonal therapy fails
- D & C material to be sent for histopathological study and AFB culture

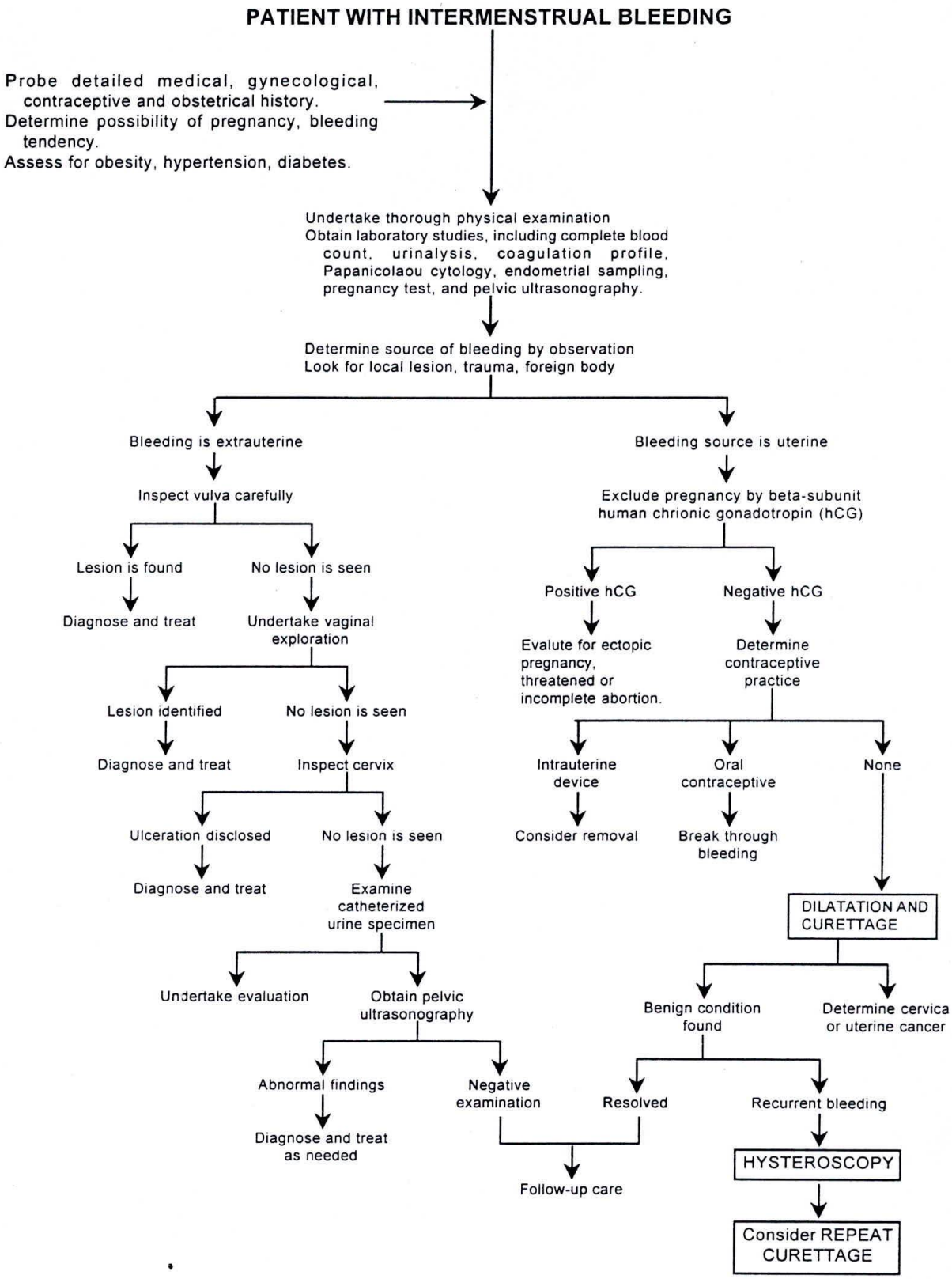
DYSFUNCTIONAL UTERINE BLEEDING

Strategy of management of dysfunctional uterine bleeding.

Age	Dilatation and curettage	Hormone and anti-fibrinolotic therapy	Hysterectomy
20 and under	Only if bleeding persists or is severe	whenever indicated, e.g. excessive bleeding	never (or almost never)
20 – 40	Always, but may be deferred (up to 3 months) if bleeding moderate, regular, and there is no suspicion of organic disease	First resort after dilatation and curettage	seldom, only if bleeding is persistent or severe after dilatation and curettage and hormone therapy
40 and over	Mandatory in all cases	Only after dilatation and curettage, in absence of organic disease	First resort if bleeding is persistent after dilatation and curettage and hormone therapy

PATIENT WITH EXCESSIVE MENSTRUAL FLOW - MENNORRHAGIA




PATIENT WITH INTERMENSTRUAL BLEEDING
Probe detailed medical, gynecological, contraceptive and obstetrical history.
Determine possibility of pregnancy, bleeding tendency.
Assess for obesity, hypertension, diabetes.
Undertake thorough physical examination
Obtain laboratory studies, including complete blood count, urinalysis, coagulation profile, Papanicolaou cytology, endometrial sampling, pregnancy test, and pelvic ultrasonography.
Determine source of bleeding by observation
Look for local lesion, trauma, foreign body
Bleeding is extrauterine
Inspect vulva carefully
Lesion is found
Diagnose and treat
No lesion is seen
Undertake vaginal exploration
Lesion identified
Diagnose and treat
No lesion is seen
Inspect cervix
Ulceration disclosed
Diagnose and treat
No lesion is seen
Examine catheterized urine specimen
Undertake evaluation
Obtain pelvic ultrasonography
Abnormal findings
Diagnose and treat as needed
Negative examination
Bleeding source is uterine
Exclude pregnancy by beta-subunit human chrionic gonadotropin (hCG)
Positive hCG
Evalute for ectopic pregnancy, threatened or incomplete abortion.
Negative hCG
Determine contraceptive practice
Intrauterine device
Consider removal
Oral contraceptive
Break through bleeding
None
DILATATION AND CURETTAGE
Benign condition found
Determine cervica or uterine cancer
Resolved
Recurrent bleeding
HYSTEROSCOPY
Consider REPEAT CURETTAGE
Follow-up care

PREMENSTRUAL SYNDROME

PMS consists of various physical and/ or emotional symptoms that occur in the second half of the menstrual cycle after ovulation. The symptoms begin about midcycle and are generally the most intense during the last 7 days before mensturation.

Causes

There's still some disagreement about what causes PMS but it is definitely linked to hormones. PMS symptoms begin in the second half of the menstrual cycle, at this time production of the female hormone progesterone increases. Then about 7 days before the menstrual period production of both progesterone and estrogen decreases dramatically. Many women find that PMS worsens as they get older-this also suggests a hormonal role. Hormonal imbalances are more likely the closer a woman is to menopause.

Pre-menstrual syndrome is not just a single clinical entity but probably constitutes a number of different syndromes. Etiology is as yet unclear and management to date has been largely empirical. The syndrome is clearly related to and perhaps a variant of otherwise normal physiologic overian function. This is evidenced by the effective reversal of its manifestations by gonadotropic in releasing hormone against. which suppresses ovarian function.

Diagnosis

Timing of Symptom : a week or more prier to the onset of menstruction.

- Cyclicity with ovulatory cycles
- Repetitive nature of the symptoms
- Prompt disappearance of symptoms after the onset of menstrual bleeding.

Symptoms:

Breast engorgement, sensitivity and discomfort, fluid retention, weight gain, abdominal pain or bloating, odema of lower extremities, headaches, dizziness, pallpitations, acne, mood changes and irritability, depression.

A complete history and thorough physical examination has to be done.

Laboratory examinations

- Routine blood & urine examination.
- Serum Prolactin

Psychoogical assessment

Therapy is elusive. Balanced Diet, exercise and vitamins (Vitamin B_6, magnesium) evening primrose oil should be tried before embarking on a programme of hormonal therapy. Dietary modification to reduce sodium intake (salt intake) in the second half of the cycle. Diuretics, analgesics, or oral contraaceptives may be used judiciously.

Avoid stimulants such as tea, coffee, chocolate and caffeine containing soft drinks.

Relief breast discomfort with supportive brassieres.

Mild Symptoms

- Trial with oral contraceptive pills.
- Progesterone administration in the luteal phase

DYSMENORRHEA

There are probably few women who can truthfully claim they never had dysmenorrhea; majority of woman is thought to experience some degree of dysmenorrhea. Literally means painful menstruation and can be of sufficient magnitude so as to incapitate day to day activities. There are 2 types:

1. Primary (spasmodic)
2. Secondary.

Primary dysmenorrhea

No disease or other medical cause can be found for the pain and other symptoms, which may include backache, diarrhea, dizziness, headache, nausea, vomiting, and a feeling of tenseness. Primary dysmenorrhea frequently affects women in their teens and early 20s who have never had a baby (adolescent girls). Appears within 2 years of menareh. Mother or sister may be dysmenorrhic Psychosomatic factors due to tension and anxiety during adolescece. Almost always confirmed to ovulatory cycles, pain is cured fllowing pregnancy and vaginal delivery. The pain is related to dysrhythmic uterine contraction and hypoxia. The symptoms are caused by prostaglandin, a natural hormone produced by the cells in the endometrium. The level of prostaglandin increases in the second half of the menstrual cycly and when the period begins the endometrial cells release the prostaglandin as they are shed. Women with severe dysmenorrhea have significantly higher prostaglandin level in their menstrual fluid. These symptoms last only for two or three days. Abdominal or pelvic examination does not several any abnormal findings.

Secondary Dysmenorrhea

This is caused by a physical condition and women who suffer tend to be older. Some of the causes are.

1. Adenomyosis.
2. Endometrial polyps
3. Endometriosis.
4. Gobroids
5. PID
6. Use of IUCD

Investigations

1. Pelvic examination
2. Ultrasound of the pelvis

Treatment

General measures include improvement of general health and simple psychotherapy in terms of explanation and assurance. Usual activities including sports and exercises are to be continued.

During periods, bowel should be kept empty; mild analgesics and antispasmodics may be prescribed. Habit forming drugs such as pethidine or morphine must not be prescribed. With these simple measures, the pain is relived in majority.

Drugs

The drugs used are:

- Prostaglandin synthetase inhibitors
- Oral contaceptives (combined oestrogen and progestogen)

Prostaglandin Synthetase Inhibitors (PSI)

These not only reduce the prostaglandin synthesis but also have a direct analgesic effect. any of the preparations listed in the table can be used orally for 2-3 days starting with the onset of period. The drug should be continued for 3-6 cycles.

(i) Fenabate group – Mefanamic acid 250-500 mg 8 hourly or Flufenamic acid 100-200 mg 8 hourly
(ii) Propionic acid derivatives Ibuprofen 400 mg 8 hourly or Naproxen 250 mg 6 hourly
(iii) Indomethacin 25 mg 8 hourly

The suitable cases are – comparatively young age and having contraindications to 'pill'. The contraindications of its use include allergy to aspirin, gastric ulceration and history of asthma.

Oral Contraceptive Pills

The suitable candidates are patients – (I) wanting contraceptive precaution, (ii) with heavy periods and (iii) unresponsive or contraindications to anti-prostaglandin drugs. The pill should be used for 3-6 cycles.

Secondary (Congestive)

Secondary dysmenorrhoea is normally considered to be menstruation – associated pain occurring in the presence of pelvic pathology.

Cause of Pain

The pain may be related to increasing tension in the pelvic tissues due to premenstrual pelvic congestion or increased vascularity in the pelvic organs.

Common offending lesions are – Chronic pelvic infection, pelvic endometriosis, adenomyosis, uterine fibroid, endometrial polyp, IUCD in-utero etc.

Patient profile

The patients are usually in thirties; more often parous and unrelated to any social status.

Clinical features

The pain is dull, situated the back and in front without any radiation. It usually appears 3-5 days prior to the period and relieves with the start of bleeding. The onset and duration of pain depends on the pathology producing the pain. There is no systemic discomfort unlike primary dysmenorrhoea. The patients may have got some discomfort even in between periods. There are symptoms of associated pelvic pathology.

Abdominal and vaginal examinations usually reveal the offending lesion. At times, the lesion is revealed by laparotomy or laparoscopy.

Treatment

The treatment aims at the cause rather than the symptom. The type of treatment depends ont he severity, age and parity of the patient.

Membranous Dysmenorrhoea

This is one variety of primary dsymenorrhoea but is rare. There is shedding of big endometrial casts during period. It is probably due to the deficiency of the tryptic ferment normally secreted in the endometrium. The treatment is the same as that for primary dysmenorrhoea. But the success rate is very low. It is not relieved even following pregnancy.

Ovarian Dysmenorrhoea

The clinical entity was first described by O'Donnel Browne. The pain usually appears 2-3 days before menstruation. The pain is continuous and dull and is distributed to either one or both quadrants innervated by T_{10} to L1 segments. The pain is ascribed to ovarian nerve degeneration of sclerocystic condition of the ovary. In obstinate cases, division of the infundibulopelvic ligament carrying ovarian sympathetic nerves is prescribed.

Right ovarian vein syndrome

Right ovarian vein crosses the ureter at right angle. During premenstrual period, due to pelvic congestion or increase blood flow, there may be marked engorgement in the vein>pressure on ureter>stasis>infection>pyelonephritis>pain.

Causes of unilateral pain during period (Dysmenorrhoea)
• Ovarian dysmenorrhoea • Bicornuate uterus • Unilateral location of pelvic endometriosis • Small fibroid polyp near one cornu • Right ovarian vein syndrome • Colonic or caecal spasm

Mittelschmerz's Syndrome (Ovular pain)

Ovular pain is not an infrequent complaint. It appears in the midmenstrual period. The pain usually situated in the hypogastrium or to one side and does not change from side to side according to which ovary is ovulating. Nausea or vomiting is conspicuously absent. It rarely lasts more than 12 hours. It may be associated with slight vaginal bleeding or excessive mucoid vaginal discharge.

The exact cause is not known. The probable factors are – (i) increased tension of the Grafian follicle just prior to rupture, (ii) peritoneal irritation by the follicular fluid following ovulation and (iii) contraction of the tubes and uterus.

Treatment is effective with assurance and analgesics. In obstinate cases, the cure is absolute by making the cycle anovular with contraceptive pills.

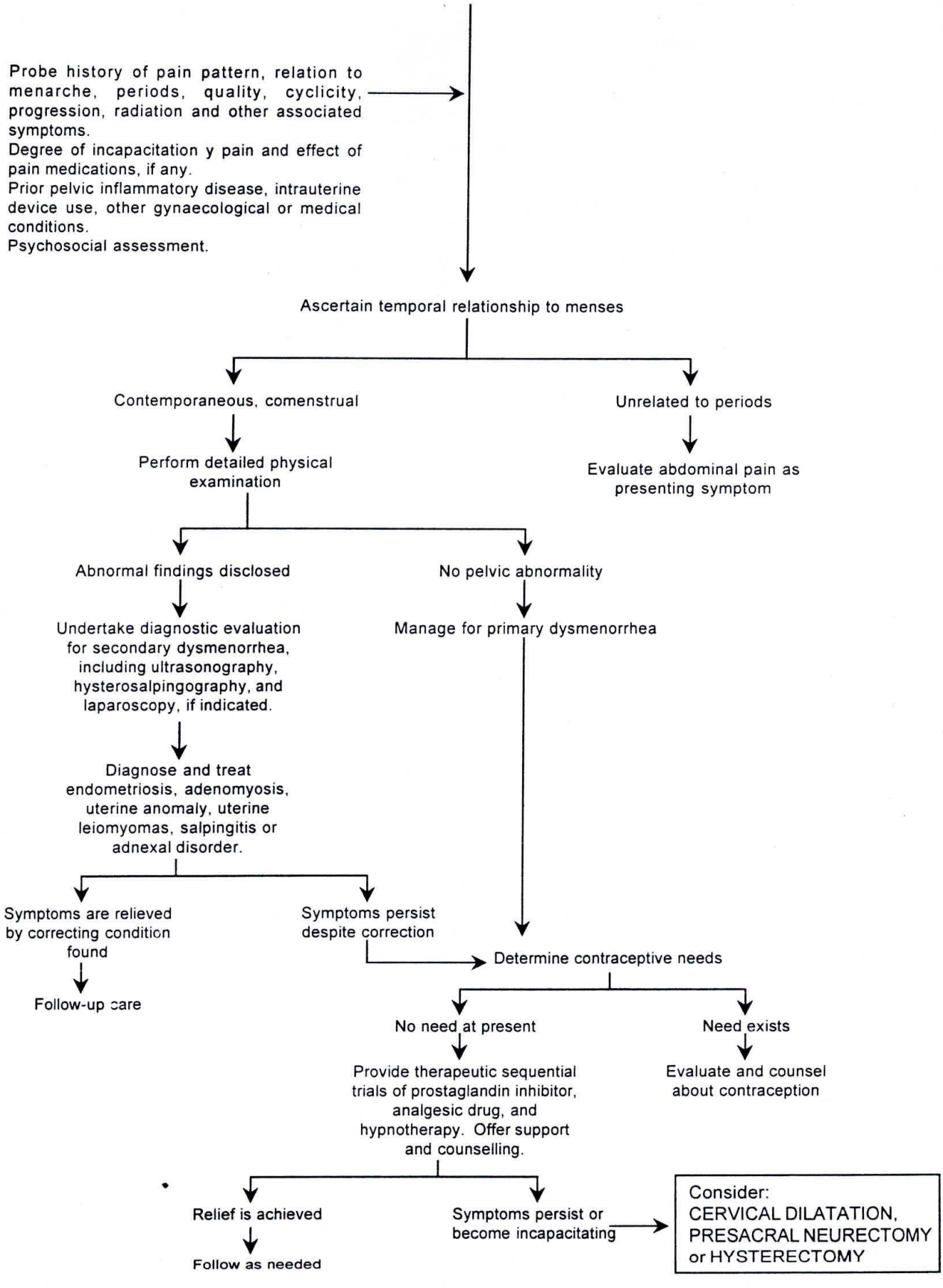
Pelvic Congestion Syndrome

There is disturbance in the autonomic nervous system which may lead to gross vascular congestion with pelvic varicosties. The patient has a congestive type of dysmenorrhoea without any demonstrable pelvic pathology.

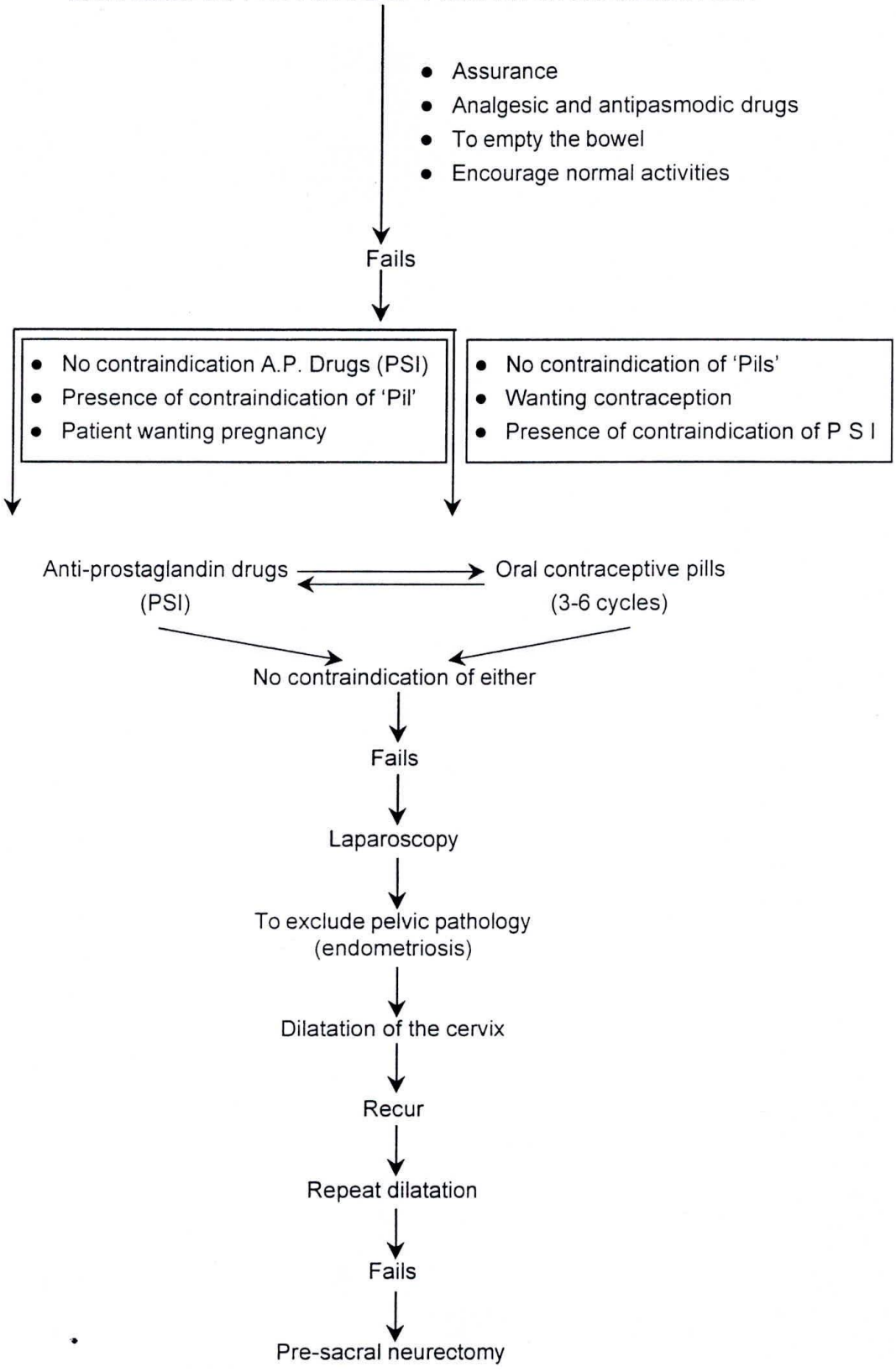
The patient complains of vague disorders with backache and pelvic pain at times with dyspareunia. There may be menorrhagia or empimenorrhoea. The uterus may feel bulky and boggy.

The treatment in unsatisfactory and the protocol may be the same as that of premenstrual syndrome. In parous women with advancing age, hysterectomy may relieve the symptoms.

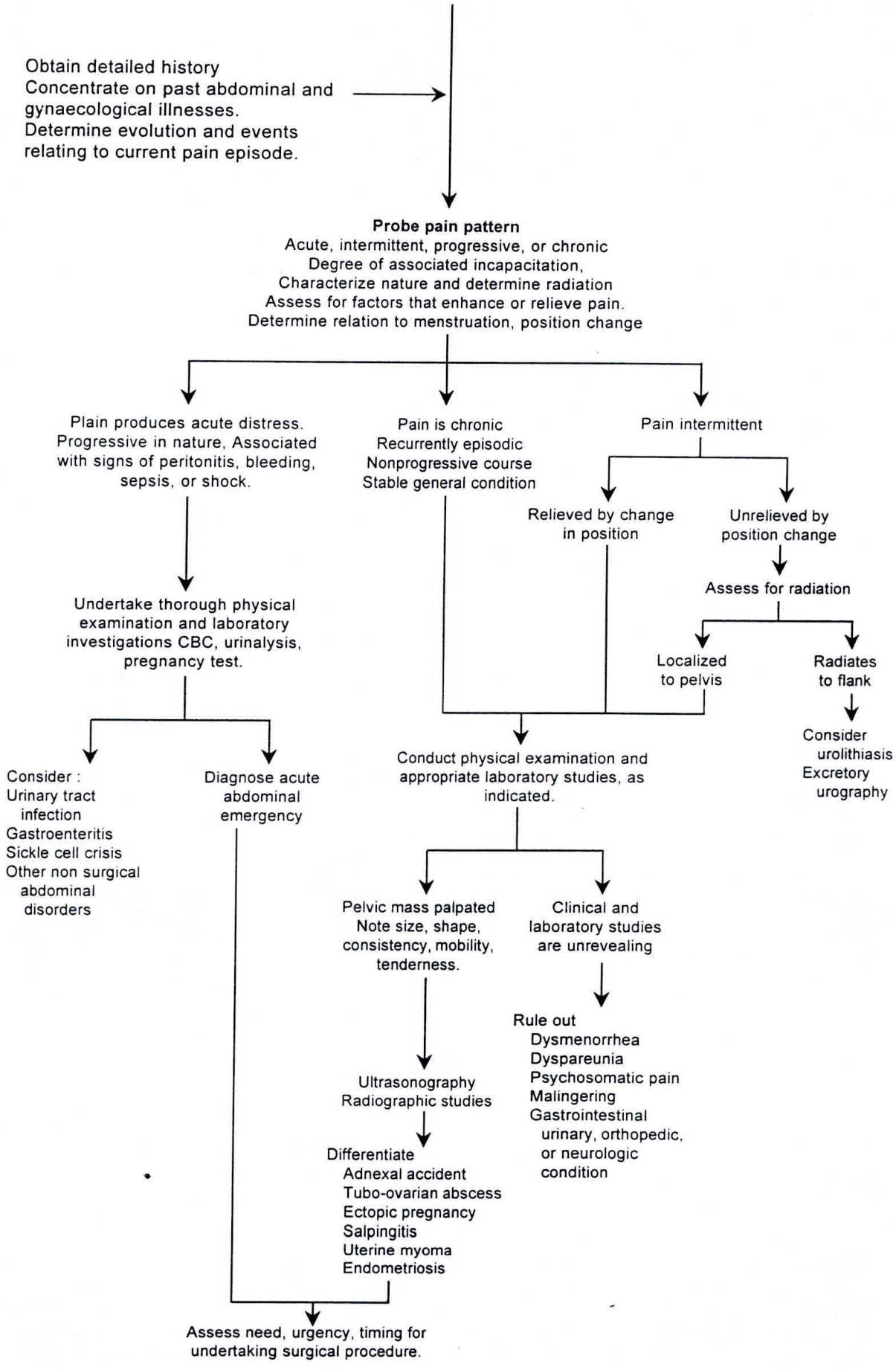
PATIENT WITH MENSTRUAL PAIN



MANAGEMENT PROTOCOL OF PRIMARY DYSMENORRHOEA



PATIENT PRESENTING WITH PELVIC PAIN



REPRODUCTIVE TRACT INFECTIONS

(NON SEXUALLY TRANSMITTED)

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INTRODUCTION

Reproductive tract infections (RTI) are infections of lower tract (vulva, vagina, cervix), upper tract (uterus, fallopian tubes, ovaries) – caused by a variety of bacterial, viral and protozoa infections.

Reproductive tract infections (RTI) is one of the common causes of gynaecological morbidity. Most but not all RTI are sexually transmitted(STI). Similarly some STI like HIV, Hepataitis B infections are more systemic disorders than RTI. RTI including sexually transmitted infections (STI) are responsible for a large amount of female, male and infant morbidity and mortality causing enormous public health burden in India.

Reproductive Tract Infections	
Lower genital tract	Upper genital tract
Vulva Vagina Cervix	Uterus Fallopian tubes Ovary

At the International conference on population and development held at Cairo, Egypt in September 94 a programme was adopted to make reproductive health services universally available. Reproductive health services has three main dimensions.

a) Avoiding of unwanted pregnancies.

b) Safe motherhood.

c) Protection against infection and dysfunction of the reproductive tract including sexually transmitted disorders. This particular aspect is badly neglected and needs proper attention.

The reproduction and child health programme in India, was officially launched on 15th October `97 in which services for the prevention and treatment of RTI are an integral part of the programme.

Magnitude of the Problem

75% of the women with RTI are below the age of 25 years and 40% of gynaecological OPD attendence is because of RTI. Pelvic inflammatory diseases (PID) constitutes 15% of gynaec admission.

Community based prevalence studies of gynaec morbidity have shown marked variation in their results e.g. excessive discharge as a symptoms varied from 13 to 75% and symptoms indicative of RTI or related morbidity (PID) ranged from 55-84%. The three commonly used modes of assessing RTI in community based studies are - self reported symptom, clinical diagnosis and laboratory examination.

Prevalence of Clinically Diagnosed RTI	
Vaginitis	4 – 62 %
Cervitis	8 – 48 %
Cervical erosion	2 – 46 %
PID	1 – 24 %

In two villages in Maharastra the prevalence of clinically diagnosed RTI was 64% and in other studies it ranged from 19% to 71%. In a study from rural Karnataka 36% of women had clinical and 56% lab evidence of RTI.

The self reports yeilded a lower estimation suggesting that many infections are asymptomatic - in one study it is as high as 82%.

The annual incidence of STI in India is estimated as 5% which means approximately 40 million new infections every year.

It is important to note that several community based studies have shown that RTIs are not limited to high risk population but also is prevalent among others, particularly with poor health facilities.

Sequelae of RTI

RTIs leads to several problems notable among them is the high incidence of infertility which is a major psycho social problem in our community.About 15-25% of women who developed PID become permanently infertile as a result of tubal blockage.50-80% of female infertility in Africa is thought to be due to RTI.

It should be emphasised that RTI increases the risk of transmission of HIV infection. Infact the awareness of RTI has improved of late because of the wide spread educative information regarding HIV infections.

Sequelae of RTI	
Gynaecological	Obstetrics
Infertility Chronic pelvic pain Irregular menstruation	Tubal pregnancy Abortion, preterm delivery PROM, still birth Congenital infection

Lower Genital Tract Infections

VULVA VAGINA CERVIX

Natural Defence Mechanism (Lower Genital Tract)

VULVA

- Inherent - resistance to infection,
- Apocrine gland is rich in undecyclinic acid which is fungicidal.
- Closure of introitus by apposition of labia minora.

VAGINA

- Apposition of anterior and posterior vaginal wall
- Tough epithelium, no glands no crypts no multiplication
- Acidic PH because of doderliens bacilli, glycogen, lacticacid & oestrogen hormone.

CERVIX

- Mucus plug which is bactericidal

Vaginal defences are lost due to change in PH from acidic to alkaline during prepubertal period, menstruation, after delivery, during menopause.

Natural Defence Mechanisms (Upper Genital Tract)

UTERUS

- Periodic shedding of endometrial lining during menstruation .
- Closure of uterine osteum of the falliopian tube even with minimum inflammation.
- Harbouring of non pathogenic micro-organisms which acts as scavengers

FALLOPIAN TUBES

- Peristalisis of tubes and movements of cila towards uterus.

TYPES AND CAUSES OF RTI

- RTI can affect lower and upper tracts.

The causes of RTI are :

Endogenous - Infections caused by over growth of organisms normally found in genital tract. These are seen particularly in individuals who have inadequate personal, sexual and menstrual hygenic practices.

Sexually Transmitted - The second route of infection is sexually transmitted diseases mainly through unsafe sexual contact.

Iatrogenic - This is due to unhygenic procedures adopted during abortion, deliveries and IUD insertions.

Reproductive Tract Infections.

SEXUALLY TRANSMITTED INFECTIONS	• Gonococci • Syphilis • Chlamydia • Herpes genitalis • Condylomata accuminata

NON–SEXUALLY TRANSMITTED INFECTIONS	• Vulvovaginitis in children • Atrophic (senile) vaginitis • B V (Bacterial Vaginosis) • Iatrogenic - Foreign body, IUD • Post abortal, post delivery, HSG • Endometrial biopsy, curettage • Termination of pregnancy •
MIXED INFECTIONS	• STI > Non STI TRICHOMONAS VAGINITIS , • NON STI > STI CANDIDA.

Infections of Vulva

Vulvitis is local infection of vulva.

Causes

1) Infections	2) Allergic	3) STI
- Folliculitis - Scabies, ring worm - Thread worm - Bartholinitis	- Contact dermatitis - Synthetic undergarments - Soap, dettol, detergents - Deodarant menstrual pad/napkins - Tight garments.	- Herpes genitals. - Molluscum contagiosum - Condylomata accuminata

4) Associated with medical disorders	5) Secondary to vaginal discharges	6) Hormonal	7)Psychological stress.
- Anaemia, Vit A, B, deficiency, diabetes.	- vaginitis or cervicitis.	- Vulvoginitis in children - Senile Vaginitis.	

Symptoms

1. Itching sensation, persistant prolonged.

2. Vulval irritation.
   - Painful with burning.
   - Scratch marks burning.
   - Dysuria.
   - Dyspareunia.

3. Abormal vaginal discharges.

Signs

- Inspection of vulva.
  Redness, oedema, Folliculitis, Abrasions, swelling, ulcer, warts, condyloma / vesicles / depigmented patches,

- Introitus may be involved with inflammation.

Speculum examination : Any signs of vaginitis / cervicitis.

Diagnosis : Clinical – History & Examination.

Laboratory :

1. Blood - Hb% - Peripheral smear
   Routine urine analysis
   Stool - ova cyst.

2. Scrapings from the lesion - with 10% KOH on a glass slide
   - Hypae can be seen
   - Fungal

Treatment

SPECIFIC
- Treat Specific etiological factor.
- Antimierobia given for secondary bacterial infection.
- 0.5% Hydrocortisone oitment for 3-4 / day for itching
- Antihistamine Calamine lotion.
- Estrogen – ethynyloestradiol 0.01mg OD for 2-3 weeks
- Antifungal c ream - Clotriamazole / Micolozole for 2-3 weeks.

Scabies
- Treat other members of the family & sexual partners.
  10% Benzyl Benzoate from chin to toes for 3 days Also to wash all cloths and bed linen.

Pediculosis
- Gamma benzene hexachloride applicastion over night or Shampoo for 5 months.
- Clothes bed linen, washed before and after treatment.

Allergic
- Avoid allergens
- Topical hyderocortisone.

Systemic
- Manage

Specific
- Vaginal disease – treat according to the infecting organisim.

Menopausal
- Estregen creams x 3 weeks.

Helmenthiasis
- Piperazine citrate – 30ml orally

Psychological
- Reassurance
- Counselling.

PREVENTION

Awarness of STD
Personal , sexual, menstrual hygenie.
Frequent changing of undergarments.
Bath plain water , no soap .
Keep area dry, use cotton panties.
Avoid tight garments.
Good health & nutrition, To reduce weight

PRURITUS VULVAE

a) With Abnormal vaginal discharge (70 - 80%)
Trichonomas vaginalis, candida albicans
Diagnosis by Wet preparation, culture and Papsmear.

b) No vaginal discharge

1. With Skin lesion	:	Taenia, Scabies, Psoriasis, Pedicuosis, Allergy.
2. No skin lesion	:	Systemic diseases – Diabetis, Anemia Jaundice, VIT B12 deficiency, Psychological.

Infections of Vagina

The normal vaginal flora contains beneficial bacteria as well as potentially pathogenic bacteria. Canadida albicons is seen in 20% and TV in 25% during the reproductive age period and they remain asymptomatic and so also BV (Bacterial Vaginosis).

Women harbouring organisms without symptoms of vaginitis

- beneficial bacteria – lactobacillus acidophillus
- non – pathogenic – diphtheroids, staphylococcus
- potential pathogenic – e.coli, bacteroides, anaerobic, streptococci, cl.welchin
- candida albicans
- chlamydia trachomatis
- gardneralla vaginalis
- trichonomas vaginalis

presence of these organisms may represent either
NORMAL STATE / CARRIER

Normal Vaginal Secretion: is odourless clear to slightly whitish and does not cause any discomfort such as itching, burning does not soil the undergarments. The discharge also varies according to the menstrual cycle increasing in the premenstrual phase, ovulation phase, and also when sexually stimulated.

Vaginitis - The specific causes of vaginitis include infection due to trichomonas, candida and chlaymidia bacterial gaginosis (though it is not in real sense vaginitis).

The nonspecific vaginitis can result from tampoons, contraceptine, chemicals, persaries, foreign body and even cervical or vaginal operations, puerperium. The organisms most often seen in these conditions are streptococci both haemolytic and anaerobic, E.coli, staphylococci

Vaginitis following deficenicy of oestrogen seen in children and post menopausal women. Secondary to chronic cervicitis

Vaginal Discharge	
Normal	Abnormal
Clear, flocculent	Altered colour – yellow,green,brown Thick, watery, frothy
Small quantity	Profuse copious
Slight increase During ovulation and Few days before periods	Continuous
Does not stain pads	Stains pads
Not foul smelling	Foul smelling
Not irritant	Irritant & itching around vaginal opening

Normal But Excessive Discharge (Leukorrhoea)

- Non purulent excessive discharge.
- No foul smell, non irritating, soils under garments, requires a pad.
- External genitalia - No odema, no smell, only discharge
- Microscopy - No pus cells, No organisms.

Causes i) Physiological: At puberty.
. Ovulation
. Premenstrual
. Sexual excitement
. Pregnancy.

ii) Non infective
1) Cervical causes - erosion, extropian mucus polyp
2) Vaginal causes - Pelvic congestion. (e.g. Prolapse, retroverted uterus)
. chr. PID, constipation.
. Sedantary life, ill health
. Pill use, anxiety

Management

- Improve general health
- Reassurance
- Personal, genital and menstural hygeine to be maintained
- To stop pill temporarily.
- Cervical conditions are the one which requires surgical treatment. e.g. Cautery, Cryosurgery

Abnormal Vaginal Discharges

Let us deal with some of the common conditions.

CANDIDA VAGINITIS (Vaginal Thrush).

This is caused by canadia albicans a gram positive fungus. The symptoms consists of profuse vaginal discharge , thick white cheese like tending to form plaques, lightly adherent to vaginal wall.

Candida Vaginitis / Moniliasis

- causative organism – gram positive fungus candida albicans
- Predispocing factors - pregnancy, diabetes, oral pills, broad spectrumantibotics
- Clinical features – profuse curdy discharge intense puritius, soreness and oedema of vulva.
- Diagnosis - one drop discharge + one drop KOH - mycelia seen under microscope.
- Treatment – clotrimazole (500mg vaginal tablet single dose)
  or (100mg vaginal tablet x 7 days)
  - Inchronic cases flucanazole 150 mg single dosage - both partners.
  or Ketoconazole 100mg BD for 5 days for both partners.

Bacterial Vaginosis (B.V)

B V is the most common form of vaginitis in reproductive age with a prevalence rate varing from 5% in college population to more than 60% in STD clinics. The incidence increases with IUD usage, multiple sexual partners, increasing parity and lower socio economic status.

It is more a vaginosis than vaginitis and is due to more than one organism including gardeneralla vaginalis. This occurs when the normal vaginal milieu (low PH, acidophilic) is changed as a result of menstruation, hormonal changes or vaginal intercourse.

The normal vaginal flora containing lactobacilli is a defence against other microbes, in view of its production of hydrogen peroxide. When this defence mechanism breaks down several microbes, particularly the anerobes (Gardnerella) and mycoplasms invade and change the PH to the higher range.More than half the women are asymptomatic inspite of the infection.

Bacterial Vaginosis

Causes - gardnerella, mycoplasma and other anaerobes

Symptoms – profuse, ' rotting fish ' odour, non irritating vaginal discharge

Diagnosis - take fresh discharge – add 10 – 20% potassium hydroxide (whiff test) emits fishy amine odour wet preparation under microscope shows
a) Charecteristic 'clue ' cells (vaginal epithelial cells with Blurred borders
b) Highly characteristic, motile, crescent shaped microbes

Overall the role of sexual transmission of micro organism in BV is controversial. It is note worthy that the recommended treatment for BV chlamydia and trichomoniasis is the same - Metronidazole.

The differential diagnosis include vaginitis due to candida or trichomanal infection.

The treatment options are :

a)	Metronidazole	-	500mg twice daily for 7 days.
b)	Secnidazole	-	single dose of 2 gms.
c)	Clindamycin	-	300mg orally twice daily for 7 days.
d)	Metronidazole Gel	-	0.75% 1 applicator full (5 gms) intravaginally at bed time for 7 days.
e)	Clindamycin Cream	-	2% 1 applicator full (5 gms) intravaginally at bed time for 7 days.

Treatment in pregnancy.

a) First trimester
   - vaginal clindamycin is the treatment of choice.
b) Second and third trimesters
   - Oral metronidazole may be used.

Asymptomatic patients may also need the same type of treatment particularly in women undergoing surgery or invasive procedure. As BV is transmitted by unprotected sex or otherwise, currently the sex partner is treated only when there is recurrent BV infection.

Trichomonas Vaginitis

Is the most common form of vaginitis occuring alone or in combination with other STD, and is caused by a parasite. Though commonly recognised as STI, it can be transmitted by other methods also e.g. indirect contact through common towels, personal clothing, improper sterile instruments, bath tubs and swimming pool.

Cause	–	trichonomas vaganilis
Symptoms	–	purulent, frothy, yellow / green colour vaginal discharge with Pruritis with dysuria, dyspareunia
Diagnosis	–	swollen oedematous, inflammed labia, introitus saline preparation of discharge under microscope shows motile trichonomos vaginalis
Treatment	–	metronidazole 200 mg TDS for 7 days or tab. Tinidazyle 2 gms Single dose orally Sexual partner too to be treated in the same dose

Vaginitis in pre pubertal period : is a result of poor hygiene and is usually caused by infection transmitted by clothing utensils, from another child. The common organisms are candida albicans, E.coli, streptococci and staphylcocci and worms; also caused by foreign bodies.

Pre – Pubertal Vulvo – Vaginitis

- Lack of oestrogen; increased PH; poor hygine

- Source of infection
  Foreign body, infected towel
  Thread worm infestation

- Organisms
  Candida, T.V., E.coli, streptococci, staphylococci, threadworms,
  Gonococci

- Symptoms
  Purulent vaginal discharge
  Pruritus vulvae
  Burning sensation
  Dysurea

- On examination
  Red oedematous vulva with discharge and tender vagina

- Investigations
  Wet smear
  Gram stain
  Culture & sensitivity

- Treatment
  General cleanliness, keep the area dry
  Non-specific : local application of 1% hydrocortisone for irritation
  Local application of oestrogen cream for 2 weeks
  Tab. Ethinyl oestradiol 0.01 mg – ½ tab daily for 3 weeks

  Specific : T.V. – metronidazole 100mg TDS * 10 days
  Monilia – local appilication of antifungal
  Remove FB under general anaesthesia
  Treat for thread worm disease

Senile Vaginitis :

In view of lower oestrogen levels in the post menopausal period the natural resistance of the vagina against many organisms are lost, resulting in symptoms of pain yellowish discharge and dysuria. The treatment consists of oestrogen replacement for three weeks locally or orally.

Atrophic (Senile) Vaginitis

CAUSE	Lack of oestrogen
SYMPTOMS	yellowish or blood stained vaginal discharge pruritus vulva dysuria
ON EXAMINATION	red oedematous vulva tender vagina
INVESTIGATIONS	screen for associated malignancy by cytology / biopsy
TREATMENT	local application of conjugated oestrogen cream 1.25 mg for 2 weeks ethynil oestradiol 0.01 mg oral daily for 3 weeks

Non specific vaginitis can be due to injury, foreign body, allergy and drug sensitivity.

Non Specific Vaginitis

- Non STI
- Symptoms - offensive vaginal disease, variable colour
- Signs - red, swollen, tender vaginal

CAUSES

- Endogenous - vaginal defences are lost (following abortion, delivery)
- Iatrogenic - IUCD, vaginal operatious, tampons, foreign body, pessarie

Cause organisms	–	strophylococci, streptococci E.coli.
Diagnosis	–	gramstain, culture of the disease
Treatment	–	Treat specific cause Improve general health Foriegn body removal Terramycin vaginal tablet - 100 mg BD x 10 days.

Approach to the Problem of Vaginal Discharge

Vaginal discharge is a common problem and the successful management lies in accurate diagnosis, finding out the oetiological factor/pathogenic organism /hormonal deficiency and appropriately institution of treatment The successful management ensures better cure rate and less recurrence rate. The protocol consists of

a) Detail history
b) Clinical exam
c) Inspection of vulva vaginal cervix
d) Bimanual pelvic exam
e) Measurement of PH
f) Microscope exam of discharge

I) Wet smear - TV
- Monliasis
- BV

ii) Staining of smear- Gram`s Stain
- 1% brilliant cresyl violet
- Methelyne blue

iii)Vaginal cytology - papsmear

Investigations of a Patient with Vaginal Discharge

- Application of antiseptics to vagina should be avoided for 24 hours before testing.
- Bivalve cuscos speculum is introduced without any lubricant for visualisation of vagina and cervix.
- The discharge material is collected from vagina posterior fornix and cervix
- PH of the secretions is tested with indicator paper
- A wet smear is prepared from one drop of vaginal discharge from the posterior fornix to which is added one drop of normal saline and this is covered with a cover slip. When observed under microscope the active motile trichomonas vaginalies are seen .
- One drop of discharge on a slide - to which is added one drop of 10% KOH and is covered with a cover slip. When observed under the microscope the mycelia of the fungus candida albicans can be seen.
- A smear is made of a drop of the discharge on a glass slide and dried and stained by various preparation
  - Gram stain - for intracellular gram negative gonococci also shows cluecells of bacterial vagionosis.
  - One percent brilliant cresyl violet stain shows trichomonas vaginalis very clearly.
  - Methylene blue stain for visualising mycelia of candida albicans.

DIFFERENTIAL DIAGNOSIS OF VAGINAL INFECTIONS

CRITERIA	NORMAL	BACTERIAL VAGINOSIS	CANDIDA VAGINITIS	TRICHOMONAL VAGINITIS
Predisposing factors	• None	• Change in vaginal mileau • Loss of lactobacilli • Over growth of bacteroidis • Gardnerells vaginosis • Myoplasma	• Diabetes pregnancy • Broad spectrum antibiotic • Oral pill	• Common during child bearing age
Symptoms	• None	• Discharge, bad odor – possibly after intercourse	• Itching / burning discharge	• Frothy discharge, bad odor, vulvar pruritus, dysuria
Signs	• None	• Fishy odor, vaginal discharge	• Discharge lightly adherent to vaginal wall, when tried to remove leaves multiple petichial haemorrhages	• Swollen inflammed labia, introitus, multiple small punctate strawberry spots at vaginal vault
Characteristics of discharge	• White, clear, flocculent	• Thin, homogeneous, white to grey adherent, often increased	• White, curdy, like cottage cheese, sometimes increased	• Yellow to green, frothy, adherent, increased
Vaginal PH	• 3.8 – 4.2	• > 4.5	• < or = 4.5 (usually)	• > 4.5
Amine odor (KOH 'whiff' test	• absent	• present (fishy)	• absent	• fishy when present
Microscopic	• lactobacilli	• clue cells, coccoid bacteria, no WBCs	• mycelia, budding yeast, pseudohyphae with KOH preparation	• tichomonads, WBCs > 10/ hpf

CERVICITIS

Acute cervicitis is part of the lower RTI and is commonly caused by gonococcal or peurperal infections , consisting of mucopurulent discharge with congested enlarged tender cervix. The symptoms and management are as per the underlying condition.

Chronic Cervicitis usually caused by endogenous infection of vaginal organisms or as a result of pureperal injuries and infections, STI (gonococcal), foreign body (pessaries and tampoons). Symptoms consists of mucopurulent discharge, backache, lower abdominal pain, mennorhegia contact bleeding and infertility. The most important symptoms being muccopurulent discharge. Examination shows oedematous conjested cervix. The treatment consists of diathermy cauterization and cryosurgery.Administration of antibiotics or local antiseptics is of no use.most often the male is asymptomatic with a silent infection and it is mandatory to treat the sexual partner to ensure cure and prevent recurrence.

Inspection of Cervix
(Speculum examination)

NORMAL	ABNORMAL	MALIGNANT
* Pink * clear white/mucoid discharge * Round Smooth surface * No bleeding	* Any redness * Abnormal discharge *distortion of cervix in shape, size, contour & surface. * Contact bleeding without an obvious growth/ulcer	* Growth * Friable * Bleeding on touch * Ulcer

COMMON ORGANISMS THAT INFECT CERVIX

1. PROTOZOAL : trichomonas vaginatis
2. FUNGAL candida albicaans
3. VIRAL : HSV II, HPV
4. BACTERIAL : gardnerella vaginate
5. CHLAMYDIA
6. MIXED INFECTIONS

CERVICITIS	
ACUTE	CHRONIC
Causes : - post delivery, abortion, Operative injuries (streptococci, staphy – lococci, e.coli) - STI (chlamydia, gono - cocci)	Causes : - as in acute cervicitis
Symptoms Copious, mucopurulent foul smelling discharge • Pruritus Vulva Lower abdominal pain O/E • Vulva congested, swollen and inflammed	Symptoms • asymptomatic • persistent vaginal discharge • post coital bleeding • chronic backache • lower abdominal pain • infertility
Speculum exam : cervix red, may be covered with discharge, may be thick and purulent frothy & greenish yellow - Trichomonas curd like - candida watery & persistent – BV vagina congested & covered with same discharge	Speculum exam : hypertrophied, congested, Oedematous, nabothian follicles Nabothian cysts, mucous polyps cervical erosion may bleed on touch tears can be on both sides or on one side
Diagnosis Wet smear exam,whiff test,high vaginal and endocervical swab culture and sensitivity	Diagnosis Pap smear,colposcopy,direct biopsy
Treatment As per the cause	Treatment Diathermy cautery,cryosurgery

UPPER GENITAL TRACT INFECTIONS

Pelvic Inflammatory Diseases (PID)

Definition PIDs are defined as diseases of upper genital tract,unrelated to pregnancy and surgery.The micro organisms ascend upwards from cervico-vaginal canal to endometrium,fallopian tubes and contiguous pelvic structures.givig rise to endometritis, Salpingitis, Oopharitis and peritonitis .However the brunt of acute infection falls on fallopian tubes.

- The infection occurs from 3 different sources:-

a) STI (Gonococci, Chlamydia)
b) Endogenous - BV Micro organisms
c) Iatrogenic - Introduction of IUCD, endometrial biopsy, HSG, etc. (Group A Streptococci, Pneumococci, E.coli).

PELVIC INFLAMMATORY DISEASE (PID)

DIAGNOSIS :

Minimum criteria

1. lower abdominal pain
2. cervical motion tenderness
3. adnexal tenderness

TREATMENT

Based only on clinical background with out any bacteriological examination for gonococii or chlamydiae

ADDITIONAL CRITERION

Oral temperature > 38.3 degree centigrade
Abnormal cervical / vaginal discharge
Laboratory documentation of cervical infection

CAUSATIVE ORGANISMS

Gonococci, chlamydia
Post abortal / post pcerperal – streptococci, staphylococci, e.coli

INVESTIGATIONS

Endocervix exam for inflammation, gram stain, culture and Sensitivity

RISK FACTORS	Younger age group Increased sexual activities Multiple sexual partners Unsafe sex HSG, IUD Unsafe abortion
GOALS OF TREATMENT	Treat aggressively the initial attack of PID Treat late sequelae Treat sexual partner Prevent re – infection Treat lower genital tract infection

PELVIC INFLAMMATORY DISEASE (PID)

OPD Treatment (CDC guidelines)

Regimen A - i.m. ceftriaxone 250 mg (or equivalent cephalosporin)

Plus

Oral doxycycline 100 mg BD
Both for 14 days

Regimen B - Oral ofloxacin 400 mg BD for 14 days

Plus

Oral clindamycin 450 mg QDS
Or
Oral metronidazole 500 mg BD for 14 days

INPATIENT TREATMENT (CDC recommendation)

- Cefatoxine 2mg I.V * 6 hourly
- Doxycyclin 100mg IV BD
- Continued for 48 hours after the patients have improved
- Then – doxy 100mg * 14 days

REFERRAL FOR ACTUE PID

- when the diagnosis is uncertain like appendicities, ectopic etc
- to mass, to abscess, pelvic abscess
- adolescent patient (unpredictable) to prevent damage to reproductive tract
- severe, nausea and vomitting
- patient has failed to respond to oral regimes to OPD therapy of 48 – 72 hrs and given parenteral therapy
- serious pt. – pregnant pt

Genital Tuberculosis

This is usually secondary to Tuberculosis else where in the body, whether this is clinically apparent or not and the spread by haematogeneous route. This is caused by Myeo.tuberculosis, mainly affecting the fallopian tubes and the endometrium. The disease is indolent usually detected when the woman is being investigated for infertility, there by meaning, primary sterility is the commonest manifestation of genital tuberculosis. Involvement of the tube can occassionly be manifested as ectopic pregnancies. The other manifestations are menorrhagia, anenorrhoa / Oligomenorrhea. In about 20% of patients intermittent or chronic lower abdominal pain can be the only symptoms.

DIAGNOSIS

Is by high index of suspicion in women who have amenorrhea or sterility with no obvious cause. This can be confirmed by endometrial curettage for tissue diagnosis. The management is like any other tuberculous infection in the body for a period of 9-12 months.

GENITAL TUBERCULOSIS

Treatment -

First 3 months (3 drugs)	INH 300 mg Rifampicin 450 mg Ethambutol 800 mg
Next nine months (2 drugs)	INH 300 mg Rifampicin 450 mg

Management - prophylaxis

1. Vaccination at birth to all newborns
2. Routine health check up of school going girls
3. To investigate thoroughly In suspected cases
4. screening of family members for koch's

Pelvic Inflammatory Disease

SEQUALE	
Immediate	Late
Pelvic abscess to a rupture	Infertility – 12 %
Gen. Peritonitis	Ectopic – 6-10 fold risk
Septicaemia	Chronic pelvic pain
	Chronic pelvic infection
	Hydrosalpinx / pyosalpinx

Preventive Measures

As in most of diseases, prevention obviously, is better and easier than cure and if you look into the causes of RTI, all the RTI are preventable and it is a pity that such preventable conditions are responsible for a great percentage of gynaec morbidity. Prevention needs more of literacy, creating awareness and education at the community level.

The prevention and control of HIV and other STI's should begin at the primary health care level.

Health eduction through mahila mandal, mass media workshops, individual contacts and counselling should promote sexual hygenic practices and safe sex paractices and also proper menstrual hygiene.

Prevention can be implemented at 3 levels

PRIMARY PREVENTION

This can be achieved by education and counselling about the hygenic practices, including sexual hygenic safe sex practices including promotion of condom use and efforts to improve safe abortion and safe deliveries.

SECONDARY PREVENTION

This is aimed at prevention of the spread of infection to others and requires early detection and prompt treatment in addition to counselling regarding the practice of safe sex.

TERTIARY PREVENTION:

This is to prevent the complications of RTI by prompt diagnosis and adequate and appropriate treatment. The complications include ascending infections to upper genital tract leading to tubal damage and if the RTI has occured during pregnancy abortion and still birth.

Prevention of RTI

Primary	Secondary	Tertiary
• Avoid infection by education • Counselling about sex • Contraception	Early detection and treatment to prevent spread	Envisage controlling communication and sequale

In the whole discussion in RTI - STI in women it is important to recognise that many of the RTI requires the treatment of the partner whether symptomatic or not, and the medication should be given simultaneously and abstinance should be practised during the treatment to ensure cure and prevent relapses. The presence of RTI / STI increases the risk of HIV infection by 5-10 times.

PELVIC INFLAMMATORY DISEASE (PID)

PREVENTION

1. To prevent ascending infections
2. To prevent STD – sexual education barrier contraceptives
3. Widespread screening for cervical infection and B
4. Recurrance prevention by treating partners
5. Health education

SYNDROMIC MANAGEMENT

In the absences of clinical expertise and diagnostic laboratory support, the WHO has recommended syndrome based approach for the diagnosis and treatment of RTI-STI in symptomatic patients for e.g. when the genital ulcer is detected, therapy is advised for the two common causative diseases e.g. syphlis and chancroid; similarly for vaginal dishcarges the therapy targets four common condition - Gonorrhoea candidiasis, trichomoniasis and bacterial vaginosis; for uretheral discharge therapy for both Gonococcal and Chlamydian disease; for lower abdominal pain therapy for PID.

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SEXUAL TRANSMITTED DISEASES AND HIV

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SEXUALLY TRANSMITTED DISEASE (STD)

The Magnitude of the Problem

Worldwide in 1995, the World Health Organization estimated that there are over 330 million new cases of curable STD*.

The report below is based on a number of studies from many countries. It suggests that prevalence rates of STD seem to be far higher in developing countries than in developed countries.

Sexually transmitted diseases are a major public health problem in both developed and developing countries, but prevalence rates apparently are far higher in developing countries, where STD treatment is less accessible. Among women, syphilis prevalence rates may be 10 to 100 times higher in developing countries; gonorrhea rates may be 10 to 15 times higher and chlamydia rates may be 2 to 3 times higher. For example, the annual rate of new gonorrhea infections in large African cities is 3 000 to 10 000 per 100 000 population, or as many as one in every 10 people. By comparison, in the US the annual incidence of gonorrhea was 233 per 100 000 population in 1991, and in Sweden, about 30 per 100 000 in 1987.

Among developing regions STDs appear to be more common in Africa than in Asia or Latin America. In a (recent) review ... a median of 20% of women attending family planning, antenatal, or other clinics in Africa had trichomoniasis, for example, while the median prevalence in Asian studies was 11%, and in Latin American studies, 12%.

Controlling Sexually Transmitted Diseases,
Population Reports, *June 1993, Page 3.*

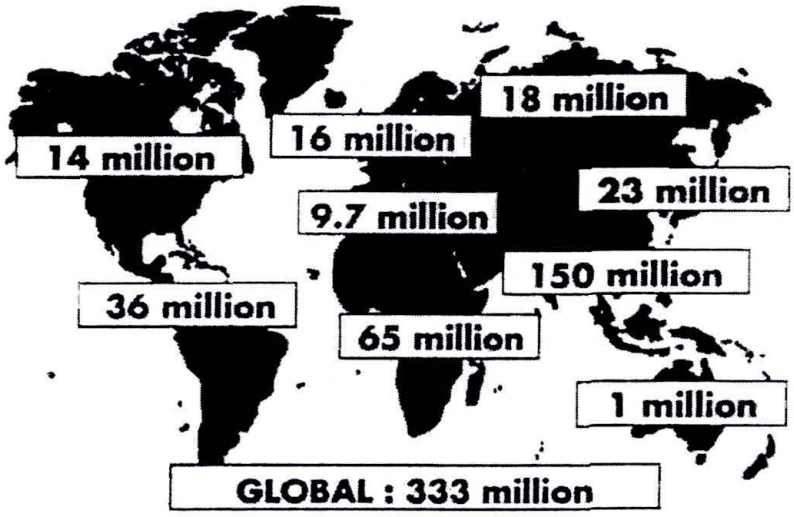


Figure 1. Estimated new cases of curable STD* among adults, 1995.
**** gonorrhoea, chlamydial infection, syphilis and trichomoniasis.***

Distribution of STD by age and sex

STD, including HIV-infection, are widespread throughout the world. They affect sexually-active people of both sexes, so STD occur in both males and females. However, statistics rarely show an equal distribution between men and women, nor do they show an equal distribution between different age groups.

Most children below 14 years of age are free from infection. Other than for congenital syphilis, ophthalmia neonatorum and HIV-infection, most children under 14 years old are not affected by STD.

Between the ages of 14 and 19 years, cases occur more commonly among females. This is due to several factors:

- The start of sexual activity is usually earlier for girls than for boys;
- Girls have sex with older partners, who are more experienced and also more likely to carry infections;
- Biological vulnerability of young girls - due to characteristics of the genital tract of young girls, they are especially vulnerable to infection with STD.

For both males and females, rates of STD tend to be highest in the 15-30 age group, decreasing in later ages.

Most large studies show that, after the age of 19, cases occur more or less equally in both sexes. However, there is usually a slight male preponderance. There are several possible reasons, some perhaps more obvious than others:

- Sexually transmissible infections often produce no symptoms or only mild symptoms in women, so fewer women come forward for treatment - and therefore they fail to appear in statistics;
- Services in general may be more accessible to men than women. For example, where men migrate to urban areas for employment, they have access to the urban services - and therefore are more likely to appear in statistics;
- As we have discussed before, cultural and economic constraints might also prevent a proportion of women from attending for treatment;
- A large number of men might be infected after practising unsafe sex with a small number of sex workers;
- Older men may be more sexually active than women of the same age:
- Men are more likely to change partners than women.In many developing countries, the best available indicators of STD levels in women are surveys taken by antenatal, family planning, or gynaecological clinics. They show a high prevalence of STD among the women attending.

PATHOLOGY / PATHOGENESIS

Sexually Transmitted Pathogens and the disease caused by them are mentioned below:

Agents	Associated Disease or Syndrome
1. Bacteria	
Neisseria gonorrhoea	Urethritis, epididymitis, proctitis, cervicitis, endometritis, Salpingitis, bartholinitis, pharyngitis, conjunctivitis, prepubertal vaginitis, PROM, chorioamnonitis premature delivery , prostatitis in men, disseminated gonococcal infection (DGI)
Chlamydia trachomatis	Same as above + otitis media, rhinitis, Reiter syndrome, pneuomonia in infants
Mycoplasma hominis	Salpingitis, post partum fever
Ureaplasma urealyticum	Nongonococcal urethiritis, premature labour
Treponema Pallidum	Syphilis
Gardnerella Vaginalis	Vaginosis
Haemophilus ducreyi	Chancroid
Calymmatobacterium	Granuloma Inguinale granulomatis
Shigella Spp	Shigellosis in homosexual men
Campylobacter	Enteritis, procto-colitis
Group B Streptococcus	Neonatal sepsis, neonatal meningitis
2. Viruses	
HIV	AIDS
Herpes Simplex	Genital Herpes, neonatal herpes, aseptic meningitis
Human Papilloma virus	Condyloma'accuminata, CIN, Carcinoma, Cervix, penile carcinoma
Hepatitis B	Hepatitis, polyarteritis nodosa, polymyalgia rheumatica, Hepatocellular carcinoma
Hepatitis A	Acute hepatitis A
Cytomegalo virus	Infectious mononucleosis, birth defects cognitive impairment
Molluscum Contagiosum	Genital molluscum contagiosum
Human T-lymphotropic virus	T - Cell leukemia or lymphoma retrovirus type – 1
3. Protozoa	
Trichomonas Vaginalis	Vaginitis
Entamoeba histolytica	Amoebiasis in homosexual men
Giardia lamblia	Giardiasis in homosexual men
4. Fungi	
Candida albicans	Vulvovaginitis, balanitis
5. Ectoparasites	
Phthirus pubis	Pubic lice infestation
Sarcoptas Scabiei	Scabies

Vulnerable groups

In most communities there are certain people who may be particularly vulnerable to STD. These people vary from community to community but may include:

- Teenage girls who are sexually active;
- Women who have several partners "in order to make ends meet";
- Commercial sex workers and their clients;
- Men and women whose jobs force them to be away from their families or regular sexual partners for long periods of time.

How accurate can any figures be ?

Most often, figures on STD are taken from the numbers attending health facilities for treatment. This tends to underestimate the true extent of STD in the general population for several reasons, some of which we have already covered:

- Both men and women with STD may be symptom-free, but women more so than men. For example:
  - 70% of women and 30% of men infected with chlamydia may not have symptoms;
  - up to 80% of women and 10% of men infected with gonorrhoea may also not have symptoms;

- Clinics offering treatment for STD may not be accessible to many of the population;

- Many people with STD do not seek treatment, and in developing countries people are not routinely screened for STD when they seek other health care;

- Because of the stigma attached to STD, many people seek treatment from alternative providers who do not report cases (such as traditional healers and pharmacists);

- Some governments are reluctant to admit to a high prevalence of STD, although the AIDS epidemic is beginning to change this attitude.

COMPLICATIONS OF STD:

STD can be devastating and sometimes fatal. Their complications include:

1. Chronic abdominal or pelvic pain or both as the result of chronic PID.
2. Irreversible damage to fallopian tubes and female infertility.
3. Urethral strictures in the male
4. Chronic epididymitis and male infertility.
5. Spontaneous recurrent abortions.
6. Increased risk of ectopic pregnancy and its consequent morbidity.
7. Potentially blinding eye infections and pneumonia in infants.
8. Social consequences such as domestic disharmony, violence and divorce.
9. Persons with STD (Gonorrhoea, Chlamydia, Syphilis, Chancroid & Trichomoniasis) are more likely to become infected when exposed to HIV and are more likely to transmit HIV.

Challenges of Controlling STD

- Sexual behavior is difficult to change.
- Sex is embarassing to discuss.A person affected with STD is slow to come for treatment and reluctant to disclose the truth.
- Many STD carriers are asymptomatic.
- Treatment is not always simple or effective. (For example: Resistance to drugs makes treatment expensive and complicated. HIV and herpes have no curative treatment.)
- Use of drugs/alcohol affect decision to take protective measures.

Strategies

Any strategy used to control STD must be feasible, effective and affordable.

- Early diagnosis and treatment to reduce transmission and complications
- Education regarding high risk behaviour unsafe sex, protection with condoms, limitation of sexual partners and importance of compliance to treatment.
- Treatment and education of sexual partners of people with STD.
- Targeting vulnerable groups such as sex workers.

APPROACH	ADVANTAGES	DISADVANTAGES	EVIDENCE	COMMENTS
1 Aetiological diagnosis/ specialist centres	• Accurate laboratory based diagnosis with appropriately tailored treatment • Training of staff from rural health units.	• Expensive • Delays in diagnosis • Minimal role as referral centre • Limited coverage of population • Asymptomatic infection not detected, but treatment possible by active partner notification and epidemiological) treatment of partners	Mabey, 1995	Not appropriate for wide-scale use in resource-poor countries
2 Clinical diagnosis	• Immediate presumptive diagnosis & treatment with good compliance • Patient does not leave untreated.	• Poor sensitivity/specificity & positive predictive value (PPV) • Does not identify asymptomatics	O'Farrell, 1994 Bogaerts, 1995	Not appropriate for wide-scale use in resource-poor countries
3 Syndromic treatment	• Problem orientated • Immediate presumptive diagnosis & treatment of possible aetiologies Patient does not leave untreated • Allows tor standardisation of management & monitoring of drug usage & antibiotic resistance • Use of non-medical staff • Use of integrated system of delivery, eg through PHC centres, MCHCs etc • Most cost-effective option	• Low sensitivity/specificity for cervical gonococcal/chlamydia infections in women • Not always acceptable to medical staff • Monitoring & modifications to maintain validity • Asymptomatic infection not detected, but treatment possible by active partner notification and epidemiological treatment of partners	Bogaerts 1995 Mayaud, 1995 Vuylsteke, 1993	Useful in resource-poor countries for the treatment of men and women with genital ulcers, but not in women with vaginal discharge Leucocyte esterase dipstick (LED) test & risk assessment scores to be further evaluated, and the development of other non-invasive genital tests for diagnosis. For women i) Treat all symptomatic vaginal discharge as bacterial vaginosis, tnchomoniasis and condidosis ii) Consider screening for cervicitis by speculum examination or developing locally valid risk assessment scores for presence of gonorrhoea and chlamydia
4. Private practitioners	• Often specialists who can choose aetiological or syndromic approach, and immediate diagnosis and appropriate treatment	• Cost to patient • Not widely available • Partner notification often not instituted		Can be used in conjunction with other approaches, but does not give wide enough access and coverage of STI control in the population
5. Alternative agencies/ therapies and informal sector	• Widely used - often first line in offering advice, education and treatment	• Treatment often empirical and poor efficacy	Mulder, 1994	Formal and informal sectors must recognise contribution that each makes and work in partnership

Syndromic Management

The main features of syndromic case management are:

- classifying the main causative agents by the clinical syndromes to which they give rise;
- using flow-charts which help the service provider to identify causes of a given syndrome;
- treating the patient for all the important causes of the syndrome;
- ensuring that partners are treated, patients educated on treatment compliance and risk reduction, and condoms provided.

Identifying the syndromes

Although STDs ore caused by many different organisms, these organisms only give rise to a limited number of syndromes. A syndrome is simply a group of the symptoms of which a patient complains, and the signs observed during examination. This table explains the signs and symptoms for the main STD syndromes and their etiologies.

Syndrome	Symptoms	Signs	Most common etiologies
Vaginal discharge	Vaginal discharge Vaginal itching Dysuria (pain on urination) Pain during sexual relations	Vaginal discharge	VAGINITIS: - Trichomoniasis - Candidiasis CERVICITIS: - Gonorrhoea - Chlamydia
Urethral discharge	Urethral discharge Dysuria Frequent urination	Urethral discharge (if necessary ask patient to milk urethra)	Gonorrhoea Chlamydia
Genital ulcer	Genital sore	Genital ulcer Enlarged inguinal lymph nodes	Syphilis Chancroid Genital herpes
Lower abdominal pain	Lower abdominal pain and pain during sexual relations	Vaginal discharge Lower abdominal tenderness on palpation Temperature >38°	Gonorrhoea Chlamydia Mixed anaerobes
Scrotal swelling	Scrotal pain and swelling	Scrotal swelling	Gonorrhoea Chlamydia
Inguinal bubo	Painful enlarged inguinal lymph nodes	Swollen lymph nodes Fluctuation Abscesses or fistulae	LGV Chancroid
Neonatal conjunctivitis	Swollen eyelids Discharge Baby cannot open eyes	Oedema of the eyelids Purulent discharge	Gonorrhoea Chlamydia

The aim of syndromic management is to identify one of these seven syndromes and manage it accordingly.

It includes only those syndromes that are caused by organisms which both respond to treatment and lead to severe consequences if left untreated. Other STD syndromes, such as vesicular lesions (herpes), genital warts and dysuria in women (painful passing urine), are not included among the seven syndromes in this programme.

Using syndromic flow-charts

Because the seven syndromes are easy to identify, it has been possible to devise a 'flow-chart' for each one. Each flow-chart takes us carefully through the decisions and actions that we need to take, leading to guidance on the condition or conditions for which to treat the patient. Once trained, service providers will find the flow-charts easy to use, so it is possible for non-STD specialists at any health facility to manage STD cases.

If this is a key benefit of the flow-charts, what other benefits does it offer in turn?

- **promptness of treatment,** because STD services can be made available at any first-line health facility. Patients are thus treated at their first visit;
- **wider access to treatment,** because treatment is available at more health centres, so reaching far more of the population;
- **opportunities for introducing preventive and promotive measures** such as education and distribution of condoms.

Treatment for all the causative agents

While a clinical or etiological diagnosis tries to identify just one causative agent, syndromic diagnosis includes immediate treatment for all the most important causative agents.

This means that - if all the necessary drugs are available - syndromic treatment will quickly render the patient non-infectious. Mixed infections occur quite often, so the costs of over-treatment can be balanced against the cost of failing to treat people for mixed or symptom-free infections.

Responding to criticisms of the syndromic approach

The main criticisms made against the syndromic approach are answered below.

'The syndromic approach isn 't scientific.'

On the contrary, it is based on a wide range of epidemiological studies over the industrialized and developing world. A number of validation studies compared syndromic and laboratory diagnosis to assess the accuracy of syndromic diagnosis. They found syndromic diagnosis to be similar, and hence accurate. As a result, syndromic diagnosis of STD has been taken up even in hospitals in both Amsterdam and London.

'Syndromic diagnosis is far too simple for a physician to use - it can even be used by nurses.'

Simplicity does not prevent physicians from using other tools including thermometer or stethoscope! And surely it is an advantage that other service providers can use a syndromic approach to diagnosis? For example, in the Netherlands, nurses have been using syndromic diagnosis to treat STD patients for a number of years. Simplified diagnosis and treatment also allows health workers more time to provide education and counselling.

'The syndromic approach fails to make use of a service provider's clinical skills and experience.'

Many clinicians rely too much on their own clinical judgement. They don't want to face the fact that they can make a clinical diagnosis in only 50% of STD cases. They also miss all the mixed infections.

'It would be better to treat the patient first for the most common cause and then, if the symptoms don't improve, treat for a second cause. Patients who are not cured by the first treatment may not return to the health centre and may even seek treatment elsewhere. They may also become asymptomatic in the untreated STD and further spread the infection.

The syndromic approach results in a waste of drugs, because patients are being over-treated.'

In fact studies have shown that the syndromic approach is the most cost-effective in the long run. Why? Because of the comparatively large costs of technology, skills and infrastructure of an etiological approach, and the long-term costs of failed treatment of, and clinical diagnosis based on experience only.

'Good, simple laboratory tests such as Gram stain should be included in STD diagnosis.'

Patients have to wait for the results and may not return for treatment. They also stay infectious and complications can occur. Gram stain is only justified when microscopy is already available, rapidly performed and accurate.

GUIDELINES FOR MANAGEMENT OF STD

Drug Treatment

GONORRHOEA:
- Ceftrioxone 250 mg IM Single Dose or
- Cefotaxime 500 mg IM Single Dose or
- Ciprofloxacin 500 mg Oral Single Dose

In Pregnancy:
- Same as above or
- Ampicillin 2 G or 3 G + Probenecid 1 G oral Single Dose

TRICHOMONAS VAGINALIS:
- Metronidazole 2 G Oral Single Dose or
- Metronidazole 400 mg Oral BID for 5-7 Days

Note: Metronidazole is to be avoided during the first trimester of pregnancy.
Caution the patient not to consume alcohol while on treatment.

VAGINAL CANDIDIASIS:
- Nystatin 100 million Units Vaginal Pessary at bed time for 14 days or
- Miconozole 200 mg Vaginal Pessary at bed time for 3 days or
- Clotrimazole 500 mg Vaginal Pessary at bed time for 5 days

GENITAL HERPES:
- Acyclovir 200 mg 5 times Daily for 5 Days

CHLAMYDIA:
- Doxycycline 100 mg Oral BID for 7 Days or
- Tetracycline 500 mg Oral QID for 7 days or
- Erythromycin 500 mg Oral QID for 10 days

SYPHILIS:
- Benzathine Penicillin G 2.4 million Units IM Single Dose
- Non pregnant patient: Tetracycline 500 mg Oral QID for 15 days or Erythromycin 500 mg Oral QID for 10 days in case of allergy to penicillin

CHANCROID:
- Erythromycin 500 mg Oral TID for 7 days or
- Ciprofloxacin 500 mg Oral Single Dose or
- Ceftrioxone 250 mg IIM Single Dose or
- Trimethoprim 80 mg Oral BID for 7 days

CERVICITIS:
- Ciprofloxacin 500 mg Oral Single Dose or
- Ceftrioxone 250 mg IM Single Dose or
- Cefixime 400 mg Oral Single Dose or
- Trimethoprim 80 mg 10 Tablets OD for 3 days

ANAEROBIC INFECTIONS:
- Metronidazole 400 mg Oral BID for 14 days

LYMPHOGRANULOMA VENEREUM:
- Doxycycline 100 mg Oral BID for 14 days or
- Sulphadiazine 1 G Oral QID for 14 days

TREATMENT SCHEDULE FOR SYNDROMIC MANAGEMENT:

1. Urethral Discharge: Treat for Gonorrhoea and Chlamydia
2. Genital Ulcer: Treat for Syphilis and Chancroid
3. Vaginal Discharge: Treat for Trichomonas, Candidiasis, Cervicitis and Chlamidia
4. Lower Abdominal Pain: Treat for Gonorrhoea, Chlamydia and Anaerobic Infection
5. Scrotal Swelling: Treat for Gonorrhoea and chlamydia
6. Inguinal Bubo: Treat for Lymphogranuloma Venereum
7. Neonatal Conjunctivitis:Treat the baby for Gonococcal conjunctivitic with :

- Ceftriaxone 50 mg/Kg IM Single Dose or
- Kanamycin 25 mg/Kg IM Single Dose
- Treat the baby for Chlamydia with Erythromycin syrup 50 mg/Kg/Day Oral QID for 14 days or Trimethoprim 40 mg Oral BID for 14 days
- Clean eyes with saline or clean water
- Treat mother and her partner(s) Gonorrhoea and Chlamydia

Assessing the patient's risk of further STD

Personal sexual behaviour:

1. Number of sexual partners in the past year.
2. Sex with a new or different partner in the past three months.
3. Any other STD in the past year.
4. Has the patient ever exchanged sex for money, goods or drugs (include both giving and receiving)?
5. Use of herbs as a drying agent, or similar sexual practices.

Other personal risk factors:

1. HIV infection?
2. Use of skin-piercing instruments such as:
   - needles (injections, tattoos);
   - scarification or body-piercing tools;
   - circumcision knives;
3. Has the patient ever had a blood transfusion? When?
4. For young children, risk of perinatal transmission of STD/HIV means that service providers must question the parents about their possible infections, for example, gonorrhoea, syphilis, chlamydia, HIV.

Partner(s) sexual behaviour:

Does the patient's partner(s):

- have sex with other partners?
- also have an STD?
- have HIV-infection?
- inject drugs?
- if male, have sex with other men?

Personal drug use:

The key issue is whether the patient is mixing drugs with sex - which may increase the risk of spreading STD or being re-infected. Sharing needles or 'works' also carries a high risk of transmitting or being infected with HIV. So:

1. Use of alcohol or other drugs (if so, what?), before or during sex?
2. Exchange of sex for drugs (or drugs for sex)?

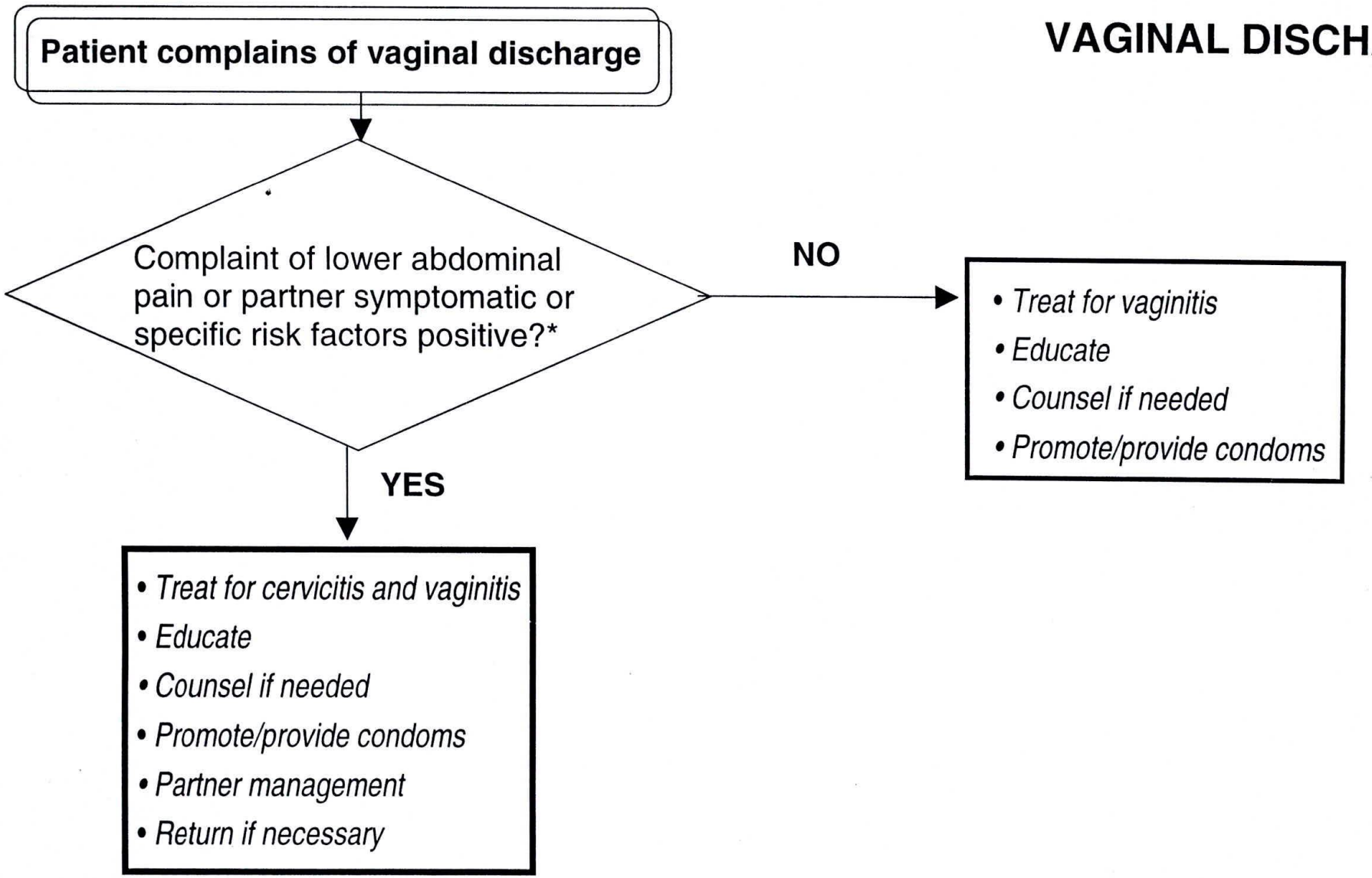
Patient's protective behaviour:

1. What does the patient do to protect him/herself from STD/HIV?
2. Use of condoms? When and how? How often? With whom?
3. What kinds of low-risk or safe sexual activities does the patient practise? How often? With whom? Why?

PREVENTIVE MEASURES:

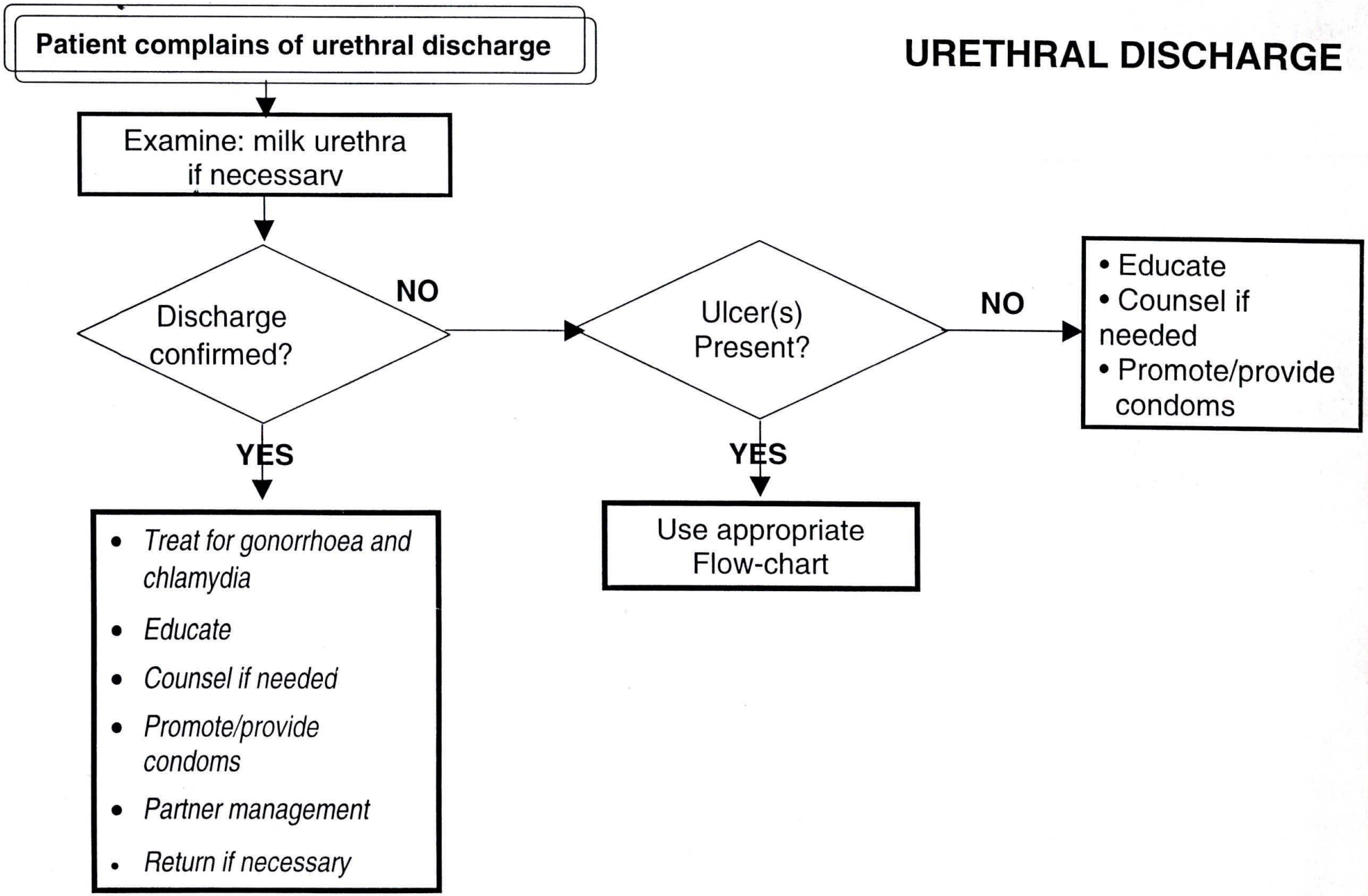
1. Limiting sexual act with one faithful partner
2. Using condoms correctly and consistently.
3. Replacing high risk penetrative sex with low risk (such as masturbation)
4. Dispel wrong notions and myths about STD.
5. Change sexual behavior.
6. Education.
7. Precautions during situations of poverty, social disruption and civil unrest.
8. Need to treat the affected and their sexual partners correctly and completely.
9. Adequate follow up of all cases.

VAGINAL DISCHARGE

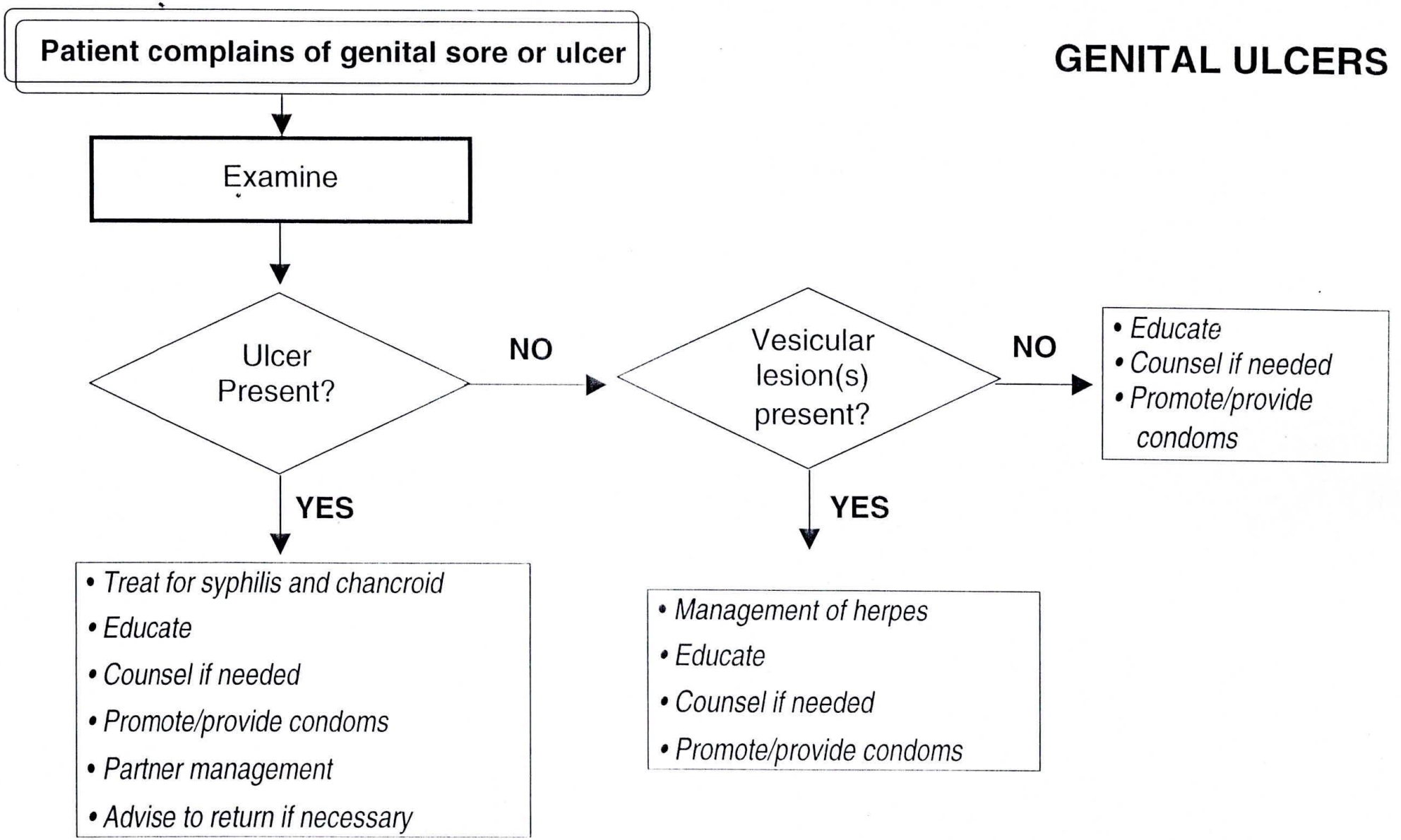


*** Positive =** age <21 years; or single; or > 1 partner; or new partner in past 3 months

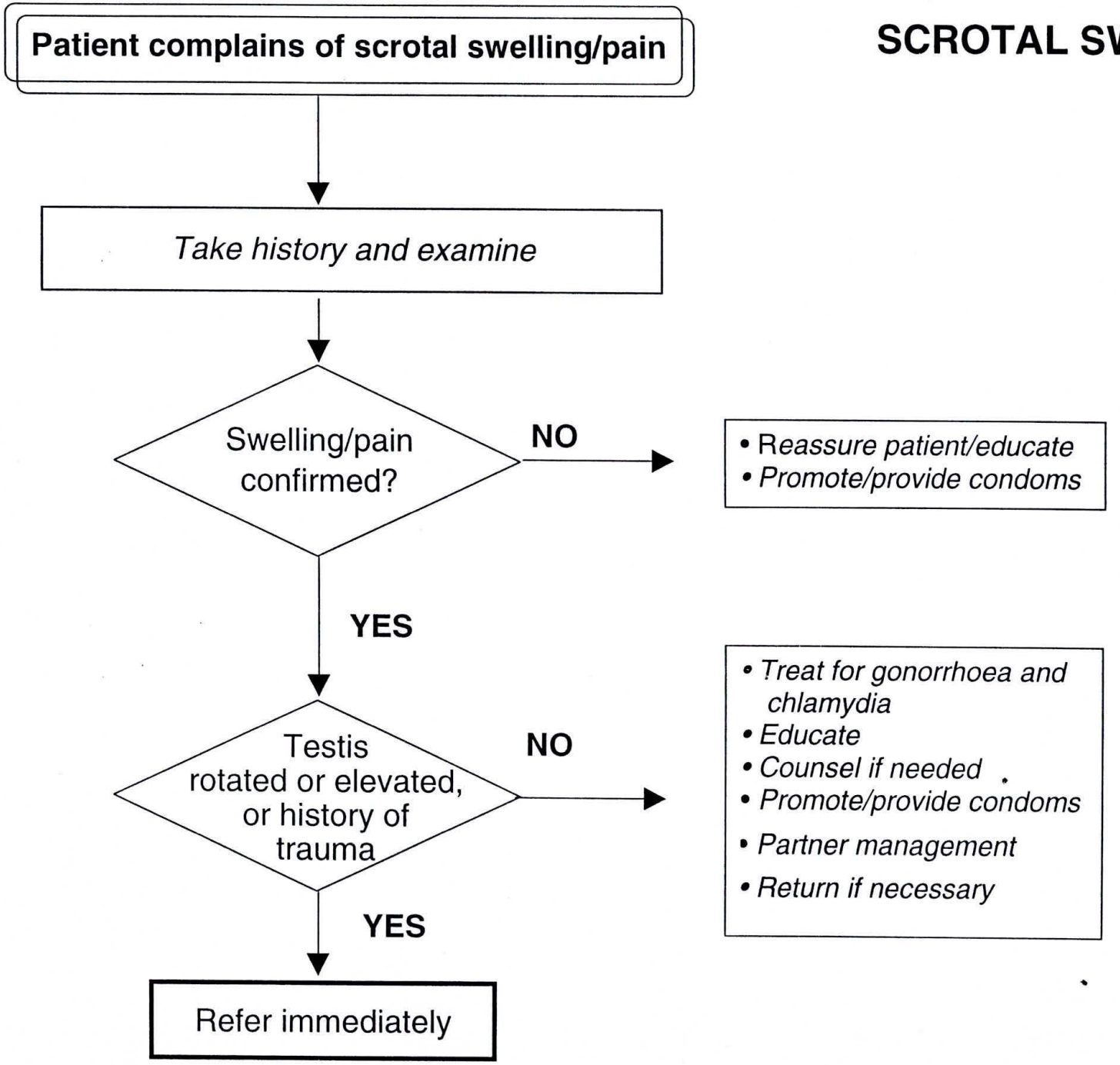
URETHRAL DISCHARGE

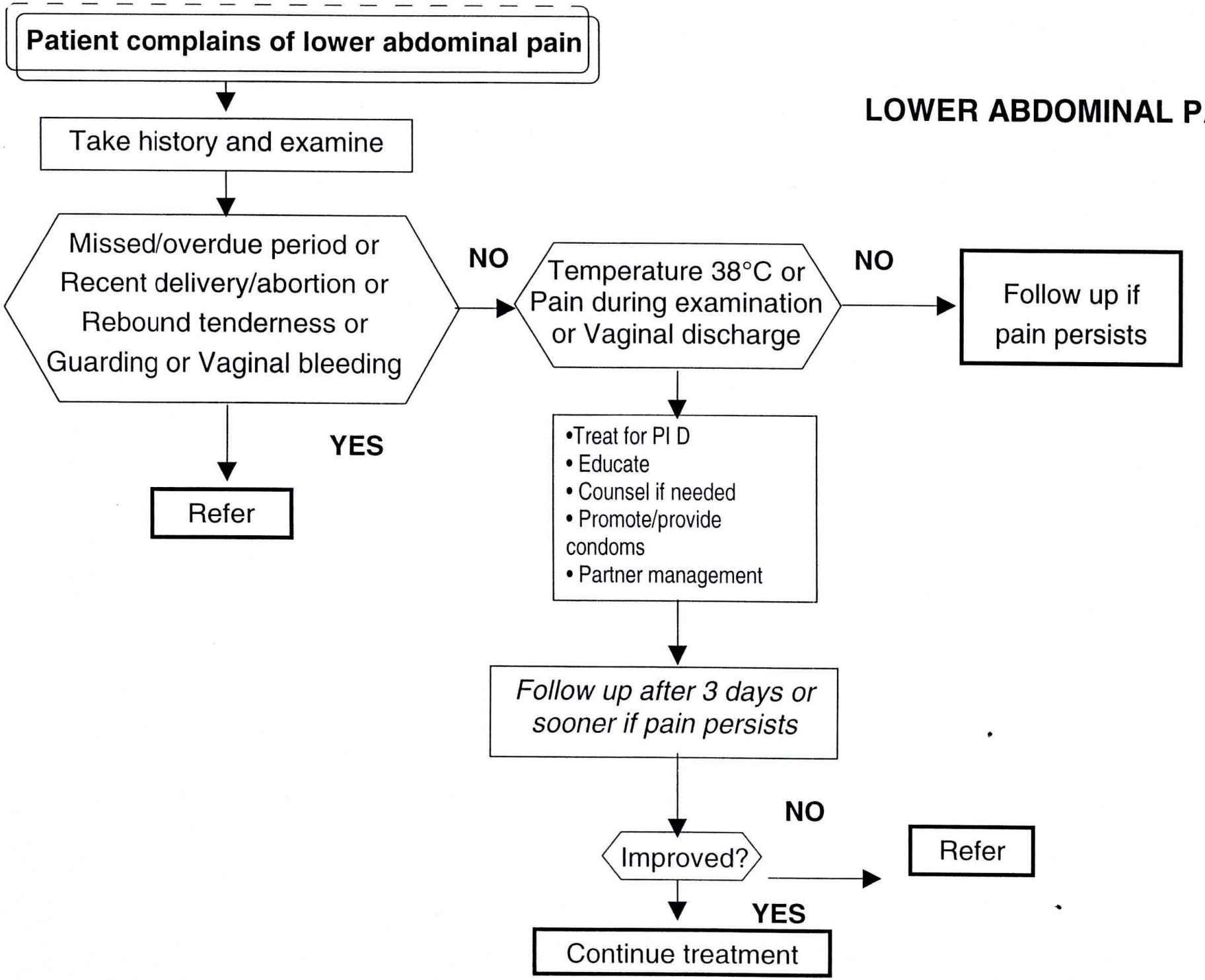


GENITAL ULCERS

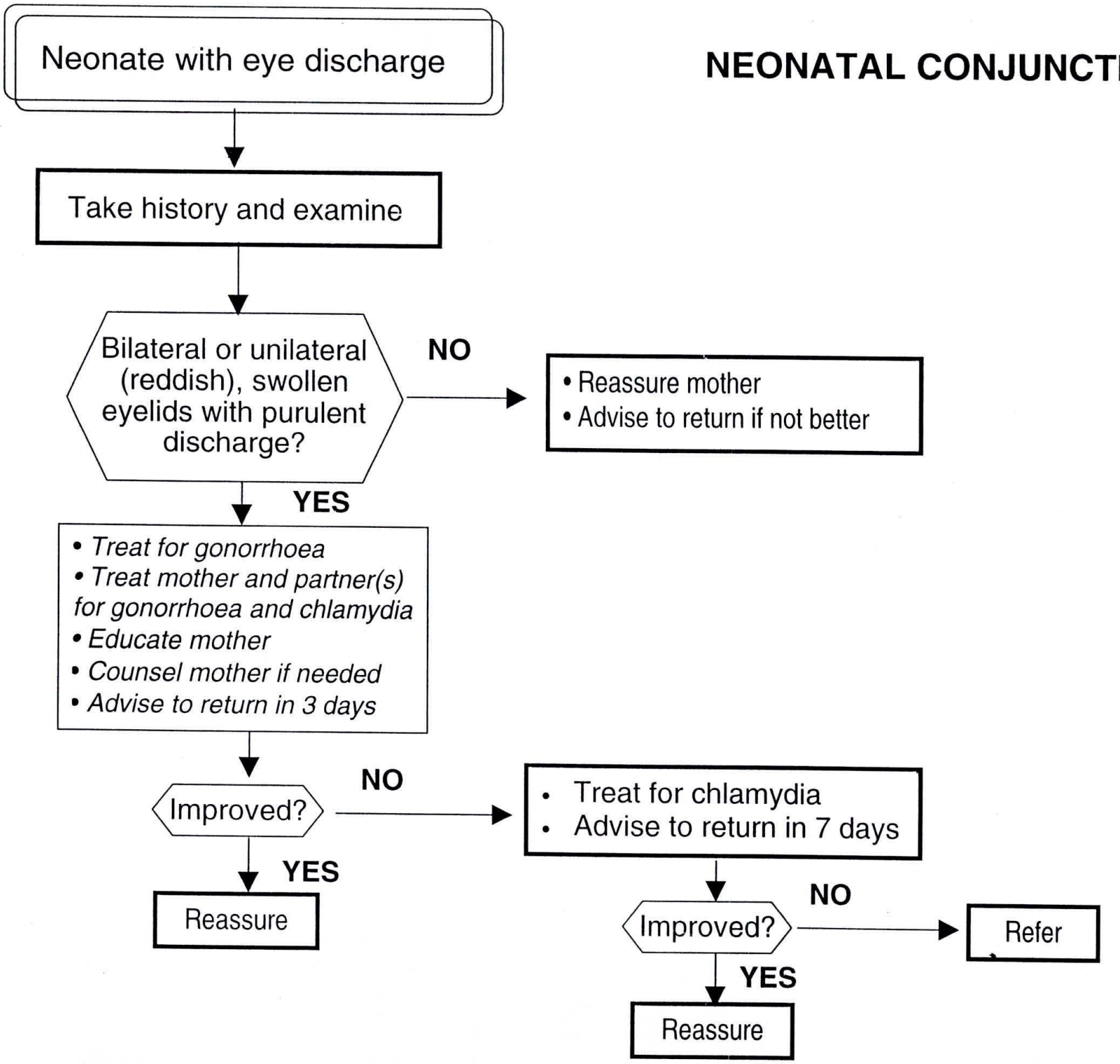


SCROTAL SWELLING

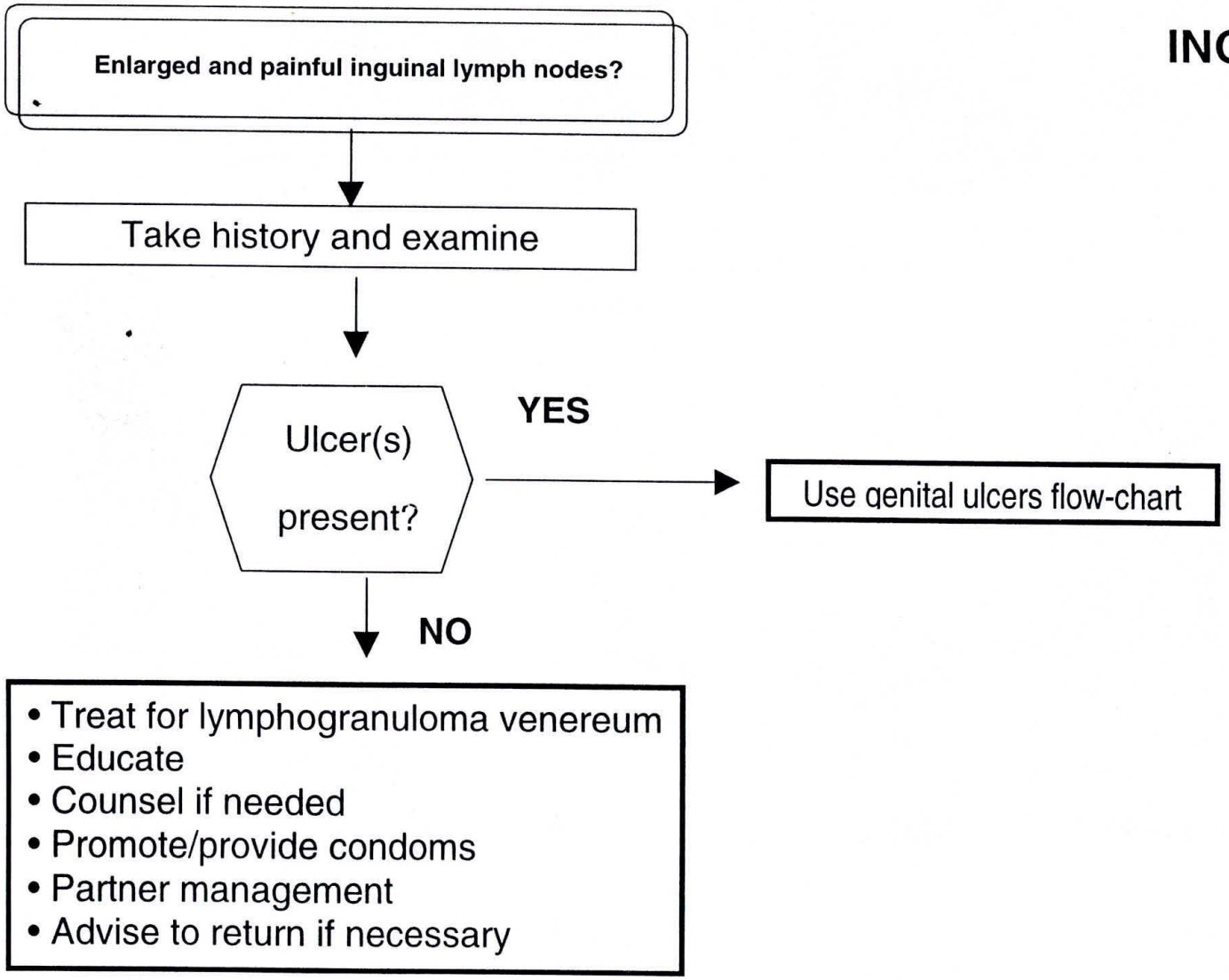



LOWER ABDOMINAL PAIN
Patient complains of lower abdominal pain
Take history and examine
Missed/overdue period or
Recent delivery/abortion or
Rebound tenderness or
Guarding or Vaginal bleeding
NO
Temperature 38°C or
Pain during examination
or Vaginal discharge
NO
Follow up if
pain persists
YES
Refer
•Treat for PI D
• Educate
• Counsel if needed
• Promote/provide
condoms
• Partner management
Follow up after 3 days or
sooner if pain persists
NO
Improved?
Refer
YES
Continue treatment

NEONATAL CONJUNCTIVITIS



INGUINAL BUBO



HIV/AIDS

Global and Indian Scenario

WHO (1992) estimated that at least 10-12 million adults and children world wide had been infected with HIV and of these two million had gone on to develop AIDS - the last stage of HIV infection. WHO estimated that by the year 2000, there will be cumulative total of 30-40 million men, women and children will have been infected and 12-18 million will have developed AIDS. Nearly 90 per cent of the projected HIV infection for this decade will occur in developing countries.

Since the first AIDS case was registered in Bombay in 1986, 310 cases have been reported to the Ministry of Health and Family Welfare from 18 states and union territories by 31st March, 1993. Maharashtra and Tamil Nadu are leading in the number of cases followed by Punjab, Delhi and Kerala.

Among the probable means of acquiring these infections, multipartner sex dominates (75.3%) followed by blood transfusion (12%) and sharing of unsterilized needles by drug users (6.5%). Eighty-three per cent of all infections were acquired within the country .Ninety per cent of the cases will die below age of 50 years and more than 2/3 were between 20 and'40 years. In November, 1992, Ministry of Health and Family Welfare and WHO undertook the exercise to assess the actual prevalence of HIV in our country. Having extrapolated the available data on HIV prevalence in commercial sex workers, drug users using injections, antenatal clinic attendants and blood donors, the team has concluded that number of HIV infected persons in India in 1991 exceeded 600,000.

Virology

The virus causing AIDS was independently identified by a team of French Scientists led by Dr Luc Mositagnier of Pasteur Institute and American Scientists led by Dr. Robert Gallo of National Cancer Institute. The International Committee on nomenclature of AIDS virus named it "Human Immunodeficiency Virus" or HIV and to date two types of HIV viz. HIV 1 and HIV 2 are identified. These viruses belong to a unique group of Retroviruses having a special enzyme named reverse Transcriptase.

Cells Susceptible in Human Host

Haemopoetic system	:	T-lymphocytes (Helper cells), N-lymphocytes macrophages, dendritic cells, promyelocytes and megakaryocytes.
Brain	:	Microglia, astrocytes, capillaries endothelial cells and oligodendrocytes.
Others	:	Bowel epithelial cells, bowel enterochromaffin cells, Kupffer cells, cervical endothelial cells, myocardial cells and cells of prostate and testis. Cells normally not susceptible to HIV can become infected following viral infections with CMV and Herpes etc.

Fate of Infected Cells

Latent infection : Cell remains normal with normal functions, however progeny of cell will carry proviral DNA. Lysis of cells due to replication of virus. Formation of giant cells. Cell is not destroyed but other normal and infected cells stick to this cell and may fuse resulting in giant cell. These fused cells may or may not function normally. Virus concentration is high in Blood, semen and vaginal secretion.

Immunology

HIV infection induces humoral as well as cellular immune response. Humoral response is evidenced by specific antibody production against different viral proteins after a latent period of 3-6 months. It is called "window period". However the antibodies do not seem to protect against fatal outcome in AIDS. This may be due to me fact that antibodies produced after 3 months of infection are incapable of blocking virus entry into susceptible cells.

How does the virus spread?

- by sexual intercourse (homo or heterosexual) when one of the partner is infected
- use of contaminated needles
- by transfusion of infected blood
- by an infected mother to her unborn child
- less commonly in other ways

High Risk Behaviour Group for HIV Infection

- Everybody who is exposed to the infection, especially: persons with venereal diseases and sores in their genital part
- persons who have multiple sexual partners
- also prostitutes (male/female) with a number of clients per day
- patients receiving untested blood from unknown donors

HIV Infection in Pregnant and Lactating Mothers

- HIV infection can spread from the mother to unborn child during pregnancy or delivery
- A pregnancy might precipitate the onset of symptoms of AIDS.
- A woman who knows or suspects that she is an HIV carrier should avoid pregnancy.
- Any woman who lives in an area with many HIV positive people belongs to high risk group and should be tested before she decides to have a baby
- The virus has been found in breast milk in low concentration. The chances that this low concentration can infect a baby are extremely low
- Since risks of bottle feeding are well known, mother should be encouraged to breast feed the infants under all circumstances.

Recognition of an Individual with AIDS-Symptoms, Signs and Diagnosis Recognition

Some person pass through first stage with fever and throat infection like a bad cold.They can then be without symptoms for a time period. For some period before the final diagnosis can be made the person might suffer from symptoms of infection. They are grouped into what is called ARC (AIDS related complex). The manifestations of disease vary widely in the world. Different signs and symptoms may be predominant in different areas. For example, "Slim disease" stressing the weight loss is most common in Africa, while pneumonia is common in USA. Diarrhoea and Tuberculosis may be more common in other areas.

To make the diagnosis the persons should show at least two major and one minor sign.

Major Signs		Minor Signs
Loss of more than 10% of body weight	–	Persistent cough
Chronic diarrhoea for more one month.	–	Generalised itchy skin disease than
Prolonged fever for more	–	Swollen glands than one month

To make the diagnosis in infant or child they sliould show at least two major and two minor signs.

Major Signs		Minor Signs
Weight loss or slow growth	–	Thrush in mouth
Chronic diarrhoea for more than one month	–	Swollen glands
Persistent cough	–	Generalised skin disease
Prolonged fever for more than one month	–	If one/both parents have symptoms and signs of AIDS.

Confirmation of Diagnosis

Laboratory diagnosis of HIV infection is necessary, and no individual should be identified as HIV positive on the basis of single test.
Laboratory diagnosis is made by:

i) detection of specific antibodies

ii) isolation of HIV

iii) detection of HIV antigen

iv) detection of viral nucleic acid

Detection of Specific Antibody

Screening

The initial tests used for this purpose are sometimes termed as screening tests. These have high degree of sensitivity, though their speciticity may not he always high. These may be divided into 3 main categories e.g. ELISA, RapidTests, Simple Tests. There are about 50 such tests available now.

ELISA : They use enzyme as an indicator system for detection of complex formed due to reaction between antigen and antibody which is present in the patients sera.

Rapid Tests : They have a total reaction time of less than 30 minutes.They are 3 times more expensive than ELISA and do not require complex equipment. They are best suited for emergency clinics, casualities of trauma clinics where immediate screening of blood of donar or a recepient may be required. There are two types of tests (a) Latex Agglutination (b) Dot blot assays.

Simple Tests : Simple tests are similar to rapid test but take longer than 30 minutes (a) latex agglutination (b) gelatin particle agglutination. They are cheap and easy to handle. No persons should be identified as HIV infected based on single screening test. The results must be confirmed by supplementary tests. These are a) Western blot assay (b) Immunofluroscence assay and (c) pepti-LAV assay.

Detection of HIV Antigen

The antigen test detects P 24 free in the serum. HIV antigen occurs during the early period and during late disease when patient is symptomatic. HIV antigen is also seen in newborn. Therefore, this test may be useful:

- when early infection is suspected and patient is seronegative
- during late disease
- to detect HIV infection in new born
- when HIV dementia and encephalopathy is suspected and test is performed with C.S.E

Detection of Viral Nucleic Acid

This is still a research technique and may be used for diagnosis of HIV infection in problematic cases.

Indirect Predictors

Cellular - TLC, Cd4/CD8 cell count and skin liypersensitivity test Serological - B-2 microglobilin, neopterin, interleukin-2 and gene marker

Management

There is still no drug available to cure AIDS. A few drugs such asAZT can help to slow down death process but they are very expensive and in short supply Patients suffering from symptoms, because they cannot fight infection, should be given treatment to ease their discomfort.

Patients who suffer from fever, diarrhoea and pain may need to be cared for in a hospital for sometime for symptomatic treatment and nursing care.

Persons who can be cared at home should be sent home. Families can respond better to the social and psychological needs of the sick member.

There is no need to isolate the AIDS patients for the sake of protecting others. On the other hand, it may be necessary to isolate a patient to protect her/him from surrounding infection. AIDS patients should be helped with their personal hygiene.This can normally be done without risk. But one thing should be remembered, that soiled or blood stained linen can transmit the virus and also bleeding or infected wounds can transmit the virus.

Care of Infected Equipment and Soiled Linen

The AIDS virus can spread through use of syringes, needles and instruments which have been in contact with the blood of a person who is carrying HIVeven if he is not sick. The virus is very fragile and dies at 56° or when soaked in common disinfectant.

There are three ways to sterlise equipment:

a) Boiling for 20 minutes

b) Steam or pressure cooking or autoclaving

c) Soaking for 20 minutes in disinfectant solution:
   i) Chlorine 5 gr per litre or 1 part household bleach in 10 parts of water
   ii) Alcohol, 700 gr ethanol in 1 litre of water solution freshly prepared

Sources and References for further reading:

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iv) National Guidelines for the Management of STD, 1999; 75 (Suppl 1) S 13-55.

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MENTAL HEALTH ISSUES RELATED TO REPRODUCTIVE HEALTH IN WOMEN

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THE INTERFACE BETWEEN PSYCHIATRY AND WOMEN'S REPRODUCTIVE HEALTH

There is probably no other area in medicine which is fraught with so many emotional issues as reproductive health. For women, issues such as fertility, pregnancy, abortion and contraception have always been areas of concern and debate. The reproductive health framework goes beyond the narrow confines of maternal and child health and family planning, to encompass all aspects of human sexuality.

It is important to recognize and describe psychiatric and psychological syndromes linked to reproductive health in women. Particularly in India and the rest of the developing world, there is an under recognition of these conditions by health professionals and a tendency to label some of these as `normal' based on cultural expectations.

Three main forms of mental health problems have been linked to reproductive function:

1. Those related to physiological changes such as menstrual cycle, pregnancy and menopause.

2. Complications of surgeries/procedures/gynaecological pathology.

3. Preexisting psychiatric problems and reproductive health.

Investigations in this field have been confronted with the problems which relate to the ways in which people have viewed mental health & reproductive issues. Medicalizing all problems takes a very narrow perspective and ignores the cultural, psychological and social perspective in which a problem occurs. Workers in this area have only recently acknowledged the value of understanding medical and psychosocial issues in an interactive manner and its relation to treatment compliance and help seeking.

Reproductive health is a large canvas and to be more focused and to describe the complex interplay of biological, hormonal and psychosocial factors, the chapter focuses on the following major areas - sterilization, menopause, psychiatric issues in relation to the menstrual cycle, gynaecological somatization and psychiatric syndromes related to reproductive pathology.

Sterilisation in Women and Mental Health

Several psychiatric problems have been described in relation to tubal ligation and laproscopic sterilisation among Indian women.

Clinical Presentation

1. History of vague pains and aches specially in the lower abdomen or low back for which no cause can be found.
2. Inability to work and fatigue
3. Disinterest and irritability
4. Decreased libido, dyspareunia

This usually occurs a few months after the procedure.

Women often tend to attribute several of their somatic and psychological problems to tubectomy even when there is no definite temporal correlation. Post tubectomy somatisation is a common presentation to primary health care clinics. An analysis of self-reported symptoms of gynaecological problems among 3,600 recent mothers in Karnataka , South India revealed a strong relationship between self reported symptoms and nature of contraceptive use. Nonusers or users of reversible contraceptive methods were less likely to report symptoms of morbid conditions than were sterilized women.

Risk Factors for post tubal ligation Mental health Problems

Risk factors associated with post tubectomy psychiatric problems have been

1. Poor motivation to undergo the surgery
2. Inadequate knowledge and myths about ligation
3. Fears related to laproscopic sterilisation being an electrical surgical technique
4. Poor family supports
5. Marital problems
6. Premorbid health anxiety
7. Fear of negative evaluation by others
8. Preoperative psychological distress

It has been found that the above factors are robust predictors of adverse psychosexual outcome immediately and 1 year after sterilization among women.

Pre and Post Sterilisation Counselling

In view of the high prevalence of somatic complaints attributable to tubectomy, it is important to emphasize the need for adequate pre and post sterilization counselling by trained professional and counsellors.

Presterilization counselling

1. Assessment of the woman's acceptance of the procedure
2. Existence of any pre existing minor psychological problems such as depression or anxiety (see appendix)
3. An evaluation of marital relationships
4. The couple/woman should be educated regarding the procedure
5. Dispel myths regarding sterilisation
6. Depression and anxiety if detected should be treated according to its severity.

If depression or anxiety is mild , it can be handled by simple counselling , however if it is severe it needs referral to a mental health professional (See appendix for guidelines for Referral)

Post Sterilization Counselling

1. Discuss with the woman her experiences of the procedure.
2. Education regarding any physical problems that the woman is falsely attributing to the procedure.
3. Couple counselling regarding sexual activity
4. Scope for follow up discussions in case a problem arises

Very often it is lack of knowledge which makes women falsely attribute all their physical and emotional problems to the sterilisation which needs to be handled at any early stage itself.

Assessment and Management of Psychological Problems Related to the Premenstrual Phase

The influence of menstrual cycle on behaviour and mood has been described widely. By virtue of their disabling effects, premenstrual changes and more often the syndrome can interfere with women's performance at work and influence adversely their interpersonal relationships. For some women (nearly 5%) these can be very disruptive and will necessitate treatment. Most women may not be aware of the relationship between their mood and menstrual cycle and it is upto the discerning clinician to detect it.

Premenstrual Changes and the Premenstrual Syndrome

Premenstrual problems can be divided into three broad categories -

1. Premenstrual changes:

A large majority of women (nearly 80-90%) experience some form of change in the premenstrual period. Usually these changes are physical in nature and are mild in severity. In most women they do not cause any impairment and only help in heralding the onset of the menstrual period.

2. Premenstrual syndrome :

The PMS generally refers to

a. A constellation of changes in the following areas
   Mood, Physical symptoms and Behaviour (described in detail below)
b. These occur with a repetitive cyclical relationship to the luteal phase of the menstrual cycle
c. Is present in most cycles
d. The symptoms may be of sufficient severity to cause distress and/or significant impairment in social, occupational and personal life.

The syndrome equivalent of premenstrual changes is found in nearly 4-5% of women and usually warrants treatment.

3. **Premenstrual syndrome superimposed on an already existing disorder:**

Some women experience a constellation of all the changes described under PMS on the background of a preexisting psychiatric or medical condition. The physician needs to hence differentiate between a pre existing problem that increases during the premenstrual period and independent PMS. This can be easily obtained from the relative or the patient when one takes a detailed history of problems that occur even in between periods.

Clinical Presentation

The premenstrual syndrome (PMS) has often been described as a heterogenous disorder. Nearly 100 symptoms have been described under the rubric of premenstrual changes and the syndrome. Usually, women with premenstrual distress have more than one symptom and not infrequently have clusters of symptoms relating to various aspects of psychological and physical functioning. Some women with PMS have an additional increase in symptoms during the ovulatory phase.

Symptoms and Subsyndromes in the PMS

Description of commonly occurring symptoms

1. **Mood changes :** The commonly occurring mood changes are irritability, mood swings, feelings of guilt, suicidal ideation, depression and anxiety . The irritability is recognised as being unwanted and out of proportion to the situation.

   Depression usually manifests as crying spells, a feeling of inability to cope, moodiness and feelings of worthlessness, death wish and less commonly , suicidal ideation. Anxiety is another common symptom with accompanying motor restlessness, feeling `on edge' and occasionally agitation.

2. **Somatic symptoms :** The commonest somatic symptom described is decreased energy levels and fatigue. In some women mental symptoms of fatigue such as decreased concentration and slowed thinking may also be found. Pain is another common presenting complaint specially abdominal or low back pain.
   Sleep disturbances are also sometimes evident which can present both as insomnia and hypersomnia. In addition there are changes in appetite and some women report craving for certain foods, specially carbohydrates. Changes in sexual desire are also mentioned as a frequent complaint.

3. **Behavioural symptoms :** Lack of self control, easy weeping and impulsivity are some of the symptoms reported. There is a tendency to get angry at small slights and becoming increasingly rejection sensitive. A number of women also report lack of interest in socialisation.

4. **Cognitive changes:** Women with PMS report having muddled thinking, impairment in memory and poor judgement. Indecisiveness and an impairment in concentration have also been reported.

5. **Changes associated with water retention :** Engorgement of the breast with mastalgia, weight gain, and swelling of the feet have been reported. Glaucoma, with pain in the eyes and blurred vision may occur in the premenstruum. Water retention may also be responsible for headaches occurring during the premenstrual phase.

6. **Positive symptoms in PMS :** Though the usual manifestation of PMS is in the form of distress, a number of women also report an improvement in one or more areas of functioning. Nearly 15-40% of women report increased well being.

In a majority of women the changes in the premenstruum are bidirectional and include both positive and negative changes.

Diagnosis of PMS

PMS is diagnosed if a woman has several of the above symptoms (with at least one mood symptom) occurring at least for two consecutive cycles during the premenstrual phase and remitting in the postmenstrual week. The symptoms should cause significant impairment at work or with interpersonal relationships.

In a large community based study in Bangalore, 10% of women from the whole sample reported having a premenstrual syndrome. On relating phase to scores on various feeling and performance parameters it was observed that both menstrual and premenstrual distress was common rather than the distress being exclusively premenstrual.

Pains and aches and fatigue were the commonest symptoms reported in all these groups followed by irritability and losing temper - 10% of the whole group felt the symptoms were intolerable and 13% reported abstinence from work. The results indicate therefore that a large number of women have at least some changes premenstrually with a smaller number experiencing a large proportion of symptoms.

Premenstrual Subsyndromes

A number of studies carried out on PMS and premenstrual changes have revealed the existence of discrete subsyndromes.

It is easier to discuss subsyndromes in women with mild to moderate degrees of premenstrual changes rather than in the more severe cases. In the latter group there probably occurs an overlap of several syndromes with one of them predominating. The following subtypes have been described :-

1. **Depressive syndrome** - sadness of mood, crying spells, irritability
2. **Organic mental syndrome** - poor concentration, clumsiness
3. **Impulsive syndrome** - mood swings, anger outbursts, aggression
4. **Water retention syndrome** - mastodynia, swelling of feet, heaviness
5. **General discomfort syndrome** - pains and aches
6. **Increased well being syndrome** - positive feelings, increased energy levels

The importance of subtyping is mainly for management and charting the course of

the disorder.

MANAGEMENT

Assessment and Diagnosis

The initial step in treatment of PMS remains the establishment of definite PMS prospectively at least over two cycles. This is important for two reasons. Firstly, it differentiates between premenstrual exacerbations of preexisting disorders and a premenstrual syndrome and secondly helps the clinician in identifying which sub syndrome or syndromes characterize the PMS in the identified patients.

Other conditions to be ruled out

Once a diagnosis of PMS is reached, several gynaecological conditions such as endometriosis, polycystic ovarian disease and uterine fibroids and medical conditions such as hypothyroidism and hypoglycaemia need to be ruled out as these might mimic or worsen PMS.

A careful psychiatric evaluation to detect the presence of comorbid depressive disorder is also necessary (use guidelines given in appendix for diagnosis of depression). If in doubt consider referring to a mental health professional.

Treatment of the PMS

The management of PMS can be divided into two broad headings - pharmacological and non pharmacological.

Nonpharmacological methods are particularly useful in milder cases of PMS. These are in the form of

1. Regular exercise
2. Stress reduction techniques such as Yoga, planning the day in advance, minimising stressful activities during the premenstrual period.
3. Dietary modification.
   - Caffeine and alcohol should be avoided
   - women are encouraged to eat complex carbohydrates such as fruits, whole wheat bread, rotis etc. at frequent intervals rather than simple sugars such as sweets or chocolates. This prevents frequent changes in blood sugar levels which contributes to hypoglycaemic symptoms which often occur in PMS and cause fatigue, anxiety and irritability caused during this period.

Pharmacological Methods

Several pharmacological agents have been used and the decision to use a particular drug depends on the subsyndrome identified and the constellation of symptoms.

Hormones

Progesterone , Oral contraceptives , Gonadotrophin releasing hormone and Synthetic androgens have been used for treating PMS.

Though progesterone was initially the drug of choice in PMS, its usefulness is limited to cases where a definite progesterone deficiency can be demonstrated. Oral contraceptives have been found to decrease premenstrual moodiness, irritability, fatigue and depression and are used commonly.

Recent studies have used `medical ovariectomy' by Gonadotrophin releasing hormone agonist (GnRH) as a means of treatment in severe cases. Improvement has been reported with doses ranging from 400-600 mg/day.

Danazol , a synthetic androgenic derivative of ethisterone has been used as an antigonadotrophin and has been found to decrease depression and pain at doses of 100-400 mg/day.

Hormones are useful when a woman has a combination of psychological and somatic symptoms of PMS and are best administered under the supervision of a gynaecologist.

Drugs That Alter Salt & Water Balance

Diuretics such as triamterene, benzthiazide and spironolactone have been found useful in treating depression and irritability in association with water retention symptoms.

Prostaglandin Antagonists and Precursors

Levels of certain prostaglandins such as PGF2 & and PGE2 are altered during the luteal phase. Based on these findings both prostaglandin antagonists such as mefenamic aid and precursors such as gamma linoleic acid (GLA 120) have been used with beneficial results both on mood and somatic symptoms, specially pain.

Nutritional therapy (Vitamins and Minerals)

Pyridoxine (Vit B6) has been used in PMS based on its efficacy in treating oral contraceptive induced depression and has been found to have some benefit in doses as high as 500 mg daily. Vitamin E has been studied in the PMS and positive effects on motor coordination reported with some improvement on mood and anxiety.

Psychotropic drugs

In view of the frequent occurrence of depression and anxiety in PMS, a number of antidepressants and antianxiety agents have been tried with varying degrees of therapeutic success.

Drugs commonly used have been

Antidepressants - Selective Serotonin Reuptake Inhibitors such as Fluoxetine, Tricyclic antidepressants such as imipramine and amitryptiline.

Anxiolytics such as buspirone and clonazepam for short term use.

Referral to a mental health professional

Most women with minor problems can be handled by the family physician. If the woman has depression that interferes with functioning during the premenstrual period or has suicidal ideas , aggression or marked irritability, a referral to a mental health professional should be considered. In minor cases the primary care physician can handle premenstrual problems , preferably in liaison with a gynaecologist and/or a psychiatrist depending on which symptom cluster predominates, specially when hormonal treatment or psychotropic drugs are being considered.

Conclusions

PMS is a potentially treatable but underdetected disorder and has special relevance in the context of mental health as it is a common condition associated with mood disorders in women. Appropriate management of the disorder helps in decreasing disability in a significant proportion of women.

Psychiatric Problems Related to Gynaecological Pathology

Pelvic surgical procedures of any form have been reported to cause increased psychiatric morbidity. Depression and a post hysterectomy syndrome characterised by headaches, insomnia and tiredness have also been reported. However, recent literature using vigorous methodology reveals this problem only in women with preexisting psychopathology.

There is also evidence to indicate a high prevalence of depression among those with pelvic pain, menstrual irregularities and gynaecological cancers.

Infertility

Another important gynaecological pathology that has important mental health implications is infertility. Infertility in any culture imposes severe emotional stress on women. High rates of depression, anxiety and suicidal ideation have been reported in this group. Societal and cultural values regarding procreation, hold the women responsible for reproduction and a failure to do so in seen as a sign of weakness. Studies in India have reported high rates of mental health problems, marital disharmony and social ostracization. Despite the new `high tech' reproductive culture, few facilities are available to handle the emotional needs of such women and their spouses .The impact of sophisticated IVF technologies which are being utilized by couples in India on their emotional health is not known. These technologies are taxing, emotionally, financially and physically and there is a need to study the psychological impact of these in the Indian setting.

Gynaecological Cancers

Among the gynaecological cancers, cancer of the cervix is probably the commonest in India.

Clinical Problems in Women with Gynec. Cancers

a. A high prevalence of depression and anxiety has been seen
b. Social support has been found to be an important factor modulating the psychosocial adjustment in cancer patients.
c. Women with cervical cancers have concerns related to body image, sexuality, pain, radiotherapy and terminality.
d. Sexual problems are very common among women with gynaecological cancers, These are related to spreading the disease to the sexual partner, feelings of contamination and fears that the cancer may spread because of sexual activity.
e. Pain is a common correlate of advanced cervical cancers and studies done among Indian women have reported unrelieved cancer pain as the commonest cause of depression.

It is obvious that women with gynaecological cancers need psychosocial assessments and support. This is particularly relevant in countries like India where delay in seeking treatment is common and factors such as poor financial resources, decreased treatment options, inadequate knowledge and myths related to treatment and family burden increase the propensity to develop psychiatric problems.

MENTAL HEALTH & THE MENOPAUSE

Clinical Features

Several physical symptoms have been described in the menopause that are related to decrease in levels of oestrogen. These are mainly in the form of flushing, bone pains and vasomotor symptoms. Though it is well know that physical symptoms occur frequently in the perimenopausal period, the status of the psychological syndrome of menopause is far from clear.

The following psychological symptoms have been reported in the climacteric :

Depression (20-30%), anxiety (15-20%), sexual dysfunction (10%) and difficulties in concentration (5-8%).

Cross Cultural Variations

Several cross cultural variations in the perception of menopause have also been noted with Western women showing a higher incidence of depression. This has been accounted for by negative attitudes towards ageing and menopause in cultures where higher psychiatric morbidity has been reported.

Factors Contributing to mental health problems in menopausal women

Mental health of women in the climacteric appears to be related to

a. Psychosocial factors - attitudes towards ageing, role in the family, death or illness in spouse, marital relationship.
b. Premorbid functioning
c. Physical health than only to the menopausal status.

Though in most cases, menopause may not directly cause psychological problems, a small minority do have the problems which were described earlier. Surgical menopause appears to have a higher incidence of psychiatric morbidity compared to natural menopause.

Hormone Replacement Therapy & the Menopause

The role of HRT (hormone replacement therapy) in relieving symptoms of menopause has been fairly well established. Problems related to menopause that benefit with HRT include relief of vasomotor symptoms, prevention of osteoporosis and prevention of cardiovascular disease.

However, similar conclusions cannot be drawn regarding the beneficial effects of HRT on psychological symptoms. The only situation in which HRT has a definite role in ameliorating psychological symptoms are in surgical menopause (ie. following a hysterectomy with bilateral oophorectomy or in primary ovarian failure). In surgical menopause, HRT appears to have a two pronged approach. Firstly, its causes a `domino effect' i.e. it improves well being by decreasing physical distress. More importantly, however it improves sleep, cognitive and sexual functioning and has a definite beneficial effect on mood.

Assessment and Management

It is very important that a perimenopausal woman with psychological distress be assessed in detail. Factors that need to be considered are psychological, social and cultural attitudes towards ageing and other family and role related issues. Several changes occur in a woman's life around the perimenopausal period which include loss of loved ones including spouse, change in roles and the `empty nest syndrome' which may occur once the children leave home. All these factors may contribute to the depression or anxiety.

With the current state of knowledge considerable caution must be exercised when using HRT for psychological symptoms alone in natural menopause. However, women with degenerative disorders , cardiovascular disease & psychiatric problems in the context of surgical menopause should not be denied a trial of HRT.

GYNAECOLOGICAL SOMATIZATION

Several clinical conditions in gynaecological practice are known to have social and psychological associations. Among these the commonest and probably the least adequately understood are - chronic pelvic pain and vaginal discharge.

CHRONIC PELVIC PAIN

Clinical Features

1. Chronic pelvic pain (CPP) is defined as a general symptom of persistent pain and

heaviness located in the pelvis of at least several months duration without any identifiable cause.

2. Usually accompanied by anxiety, dullness, irritability and sleep disturbances in the form of insomnia
3. The pain usually worsens in emotionally stressful conditions
4. Sexual problems such as lack of libido, pain during intercourse

It can be a major problem for those afflicted because of the associated distress and for health services because of the large number of patients presenting with it . In at least two thirds of women with CPP, there is no obvious identifiable pathology. The most important theory explaining pelvic pain has been that of pelvic congestion syndrome.

Mental Health Issues in Chronic Pelvic Pain

Several psychological factors are linked to CPP

1. `The meaning of pain' - very often the pain being a way of communicating emotional distress.
2. Sexual abuse has been associated with CPP and eliciting history of abuse is very important.
3. The fact that women with CPP often go through several surgical procedures for pain relief that might contribute to the pain are often ignored.
4. In some women the condition may have a psychosomatic nature , with pain and discomfort getting worse in situations of emotional stress.

Management of CPP

1. Rule out an identifiable local cause for the Pelvic Pain
2. Explore areas of stress including marital and sexual adjustment
3. Other causes such as sexual abuse that might be contributing
4. Assess for presence of co existing depression and anxiety
5. Reassurance regarding benign nature of pain
6. Acknowledging the problem the condition is causing
7. Explaining the link between emotional factors and bodily symptoms
8. Non specific techniques like relaxation exercises, yoga and exercise that might decrease vascular congestion.
9. Referral to appropriate professional if co existing psychological problems are identified.

SYNDROME OF NON PATHOLOGICAL VAGINAL DISCHARGE

General Description

The belief that the passage of white discharge per vagina (WDPV) is associated with bodily complaints of weakness, tiredness, exhaustion and body aches is widely prevalent in certain groups of Indian women.The passing of vaginal discharge (non pathological) is perceived as being abnormal and a loss of vital fluid leading to depletion of energy. Nichter (1981) discussed this as an 'idiom of distress' and described WDPV as

a symptom state associated with complex cultural meanings. In a study conducted at Bangalore among 210 women with somatic complaints attending a psychiatric outpatient, it was found that 61 % reported passing white discharge that was not attributable to a gynaecological problem. 31 % of these women felt that it was abnormal to pass WDPV and considered it a sign of illness. Prevalent etiological notions for causation of illness by WDPV included a dissolving of bones, loss of dhatu or vital fluid and overheat.

Clinical Features

Women often present primary care physicians or gynaecological clinics with complaints of :

a. Exhaustion
b. Decreased Concentration and Efficiency
c. Vague pains and aches
d. Feeling Weak
e. Listlessness and Dullness
f. Decreased sexual satisfaction,
g. Anxiety and mental tension
h. Decreased desire to speak to others
i. Decreased productivity
j. They attribute all these features to excessive vaginal discharge
k. The discharge is usually non pathological and careful questioning also reveals that it is indeed not excessive

Explanatory Models for Causation given by women

Vaginal discharge

a. is because of dietary factors
b. indicated excess of heat in the body
c. a result of tubectomy
d. because of emotional stress
e. excessive physical activity
f. the belief that WDPV was harmful to their health

Most of the symptoms describe a syndrome that includes physical, mental and sexual elements and probably include psychiatric syndromes such as depression, anxiety and somatisation.

In many women a complaint of white discharge appears to be a medium of communication regarding health issues. It is important for health workers to enquire regarding explanatory models for physical complaints. The intricate relationship between their symptoms and WDPV would otherwise remain 'hidden' and lead to dissatisfaction and poor compliance to health care.

Help Seeking for WDPV

Women in both the above study samples reported that there is a secrecy surrounding their condition and associated sense of guilt and shame with the fear of

disgrace. Only 8 % of the women go to practitioners of modern medicine while among others shyness, fears and lack of women doctors prevent adequate help seeking. There are nearly 50 types of indigenous treatments for WDPV that includes preventive therapy.

According to Nichter (1981), prevalent etiological notions of WDPV include a dissolving of bones, loss of *dhatu* and overheat. *Ujla* (whiteness), *Sweta Pradara* (white discharge), *Safed paani* (white water), *white bleeding* and *bili hogovudu* (going white) where some of the common terms used by these women. A similar syndrome in men is the Dhat syndrome which is characterised by neurasthenia related to excessive seminal discharge.

Community studies done regarding the perception of white discharge among rural women from India have also revealed several interesting findings . Perceived causes in addition to those mentioned above have been - husband having extramarital relationships, contraceptive methods including vasectomy in the husband, following childbirth and abortion and sexual tension.

Management of Syndrome Related to Non Pathological White Discharge

1. Understanding the woman's perception of the condition and her attribution patterns ie. how she links the vaginal discharge to physical and psychological symptoms
2. Careful explanation of the difference between pathological and non pathological vaginal discharge.
3. Reassurance and suggesting alternate explanations for each of the symptoms that the woman attributes to the vaginal discharge
4. Management of the woman's presenting complaints eg. anaemia causing exhaustion or anxiety leading to decreased concentration, tremors and decreased efficiency
5. Dealing with Sexual problems if any

Sexual Health and Partner Counselling

One of the major areas of intervention in the context of RTI s and STDs is discussions regarding sexual relationships. This is obviously a very intimate area of a couple's life and requires sensitivity and careful handling. However, being a very important area it should not be neglected and a routine enquiry regarding sexual functioning should be made as part of the general history taking.

Who should be interviewed ?

Ideally, the sexual history should be obtained from both the partners. Some couples may feel comfortable talking about these matters together while others may feel diffident. The physician should take a decision based on the situation whether to see the couple as a unit or individually. Sometimes it might help to interview them individually and then have a joint session.

What are the areas to be assessed ?

a. Mutual Sexual Satisfaction

b. Any sexual dysfunction - male or female ? this includes
- decreased desire
- vaginismus or dyspareunia
- erectile failure
- premature ejaculation
- orgasmic problems

c. What is the level of openness and communication regarding sexual matters ?
d. Contraceptive use and any conflicts regarding nature of contraception.
e. In case of RTIs, specifically enquire regarding acceptance of condoms, awareness regarding proper use and disposal of condoms and any myths regarding condom use.
f. Awareness in both partners regarding signs and symptoms of common RTIs and STDs. - very often it may be a lack of awareness that delays treatment.
g. History of STDs and treatment
h. Sexual Practices - including nature of sexual intercourse (vaginal sex, oral sex, anal sex etc.) - this is important because if the physician counsels regarding safe sex practices only in the context of vaginal sexual intercourse, many other routes of infection may be missed out.
i. Presence of other sex partners
j. Type of other sex partners ie - another single partner, sex with unknown persons or commercial sex workers, sex with persons who may have other partners
k. Use of alcohol during sexual activity - this is important because very often men may not be able to use a condom properly if under the influence of alcohol
l. Sexual Orientation - This might be a delicate topic and needs to be enquired into very sensitively but with increasing awareness regarding homosexual and bisexual behaviour , if there is any evidence or if the physician has sufficient rapport these should be assessed.

PARTNER COUNSELLING

Key Points

1. Very often it is the woman alone who might come to a physician for help. Once a detailed assessment regarding sexual functioning is done , it will be clear to the physician what the level of sexual communication is between the partners. If the level of communication is open then the woman can take the initiative of bringing in the partner.

2. Majority of women , specially in our cultural context may not be able to discuss openly regarding these matters with their spouse and may not be able to negotiate options of safe sex or condom use.

3. It is best for the partner to be involved in treatment as early as possible and the physician should make efforts at bringing in the partner into treatment.

4. Sessions with the partner should focus on

a. Education regarding STDs and RTIs and how treatment of both partners is important in preventing re infection.
b. Dispelling myths about condom use and encouraging acceptance of condoms if needed.

c. Approaching the spouse as a partner in treatment. The spouse should not feel that he is being blamed for the infection.

Reluctant spouses may need individual sessions in order to discuss any other factor that may be contributing to sexual dissatisfaction, problems and lack of mutual understanding in the area.

Some points to remember are -

1. Approach the area with sensitivity and without offending the patient.
2. Confidentiality is very important as it encourages an open and honest discussion with the physician. The physician should emphasize this fact.
3. Use language that the patient understands rather than technical words
4. Use visual illustrations if necessary
5. Do not indicate embarrassment or reluctance - remember that if you treat the whole problem in a calm and confident manner , the patient will feel more relaxed, ask more questions and understand more.

Methods of Providing Adequate and Comprehensive Mental Health Care In Existing Reproductive Health Care Settings.

Most women may not seek advice for mental health issues unless the problem becomes severe. Women however may more frequently seek help for gynaecological complaints specially in primary health care . It would also be more acceptable for women seek help for their problems from a gynaecologist rather than from a mental health professional. Under these circumstances the communication of both physical and emotional distress might occur in contacts with a primary care physician or health worker rather than with a trained mental health professional. Help seeking regarding reproduction linked mental health issues is related to explanatory models, communication regarding dysfunction and attitudes towards illness. Limited choices and poor accessibility to appropriate information may often lead to poor detection and treatment.

It is important hence to integrate mental health in the care of those who came into reproductive and gynaecological health clinics. One of the ways in which morbidity could be reduced is by early assessment and identification of mental health problems. Simple screening methods can identify `at risk' cases and consider appropriate referrals.

Women's health programmes tend to compartmentalise programs on mental health, reproductive health and family planning, however, women's lives very often no such compartments! Integration of mental health issues in all aspects of women's health is the requirement of the times.

APPENDIX

Diagnosis and Management of Minor Psychological Problems Related to Reproductive Health

Diagnosing Anxiety

Check for the presence of the following symptoms

1. Apprehension, difficulty in concentrating, excessive worrying
2. Motor Tension, restlessness, tension headaches, tremulousness
3. Autonomic overactivity in the form of sweating, tachycardia, dry mouth, epigastric discomfort

Anxiety maybe related to specific situations or chronic. It needs treatment if it is present most of the time (weeks to months continuously) and interferes with a woman's day to day functioning.

Diagnosing Depression

Check for the presence of the following symptoms

Women have a higher incidence of women than men. Symptoms of depression include -

1. Pervasive sadness of mood
2. Loss of interest and enjoyment
3. Reduced energy leading to increased fatiguability other features include
   a. reduced concentration
   b. reduced self confidence
   c. pessimistic views about the future
   d. ideas of self harm or suicide
   e. disturbed sleep
   f. diminished appetite

In a depressive episode the lowered mood varies little from day to day and varies little with circumstances. In more minor forms of depression the mood worsens during stressful periods. To diagnose clinical depression it should be present continuosly for at least two weeks.

Diagnosing Somatisation Disorder

The main features are multiple, recurrent and frequently changing physical symptoms for a long period of time. Most patients have a long and complicated history of contact with both primary and specialist medical professionals during which many fruitless investigations are carried out. Common symptoms reported are

1. GI symptoms such as pain, belching, nausea
2. Neurological symptoms such as tingling, numbness, pains and aches
3. Vaginal discharge, menstrual irregularities and sexual problems
4. Depression and anxiety often co- exist

Minor Features of Depression and Anxiety (ie . which are situation specific and not continuous and do not interfere with personal, social or occupational functions)

1. Reassurance
2. Education regarding nature of problems and their cause
3. Simple Counselling techniques to improve methods of coping such as
   - ventilation regarding the problem
   - helping the patient identify alternative ways of solving the problem
   - finding activities that will help patient be busy and serve as a distraction technique
4. Marital or Family Counselling if a problem is identified which includes
   - helping the family or couple identify and express areas of maladjustment
   - improving communication between the couple or family members
   - education and explanation regarding the impact of problems within the family on the mental state of the patient
   - finding alternative methods of problem resolution within the family

Referral to a Mental Health Professional Should be Considered

1. If the problems are continuous and severe
2. Simple reassurance and education does not work
3. There is more than one problem area in the patient or family eg. patient has depression, husband has an alcohol problem and the children have emotional or school related problems.
4. History of suicidal ideation or attempt
5. History of Sexual Abuse
6. Marked sleep and appetite disturbances indicating the need for psychotropic medication
7. Presence of associated medical conditions which will require careful use of psychotropics

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DOCTOR PATIENT COMMUNICATION

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Effective communication between doctor and patients is a central clinical function. Most of the essential diagnostic information arises from the interview and the physician's interpersonal skills also largely determine the patient's satisfaction and compliance and positively influence health outcome. Most complaints by the public about physicians deal not with clinical competency but with communication problems. Only a small proportion of visits with doctors include any patient education and a surprisingly high proportion of patients do not understand or remember what their physicians tell them about diagnosis and treatment.

Patient's anxiety and dissatisfaction is related to positive health outcome. Explaining and understanding patient concerns, even when they cannot be resolved results in a significant fall in anxiety. Greater participation by the patients in the encounter improves satisfaction and compliance and outcome of treatment. Patients may be able to participate in making decisions about their investigations and management, if informed properly. Informed patients are likely to be more satisfied and possibly more compliant with doctor's recommendations.

The fulfillment of patient's expectations and requirements will depend upon the effectiveness of communication between patient and doctor, the validity of the patient" expectations and the ability of the doctor to fulfil them or, if he is unable to do so, to take an appropriate referral.

1. The purpose of communication is not just to deliver a message but to effect a change in the recipient in respect of his knowledge, his attitude or, eventually, in his behaviour.

2. The value of a communication is to be judged not on its purpose or content but on its effect on the recipient. An elegant or witty communication may satisfy the communicator but leave the recipient uninformed and unmoved.

3. Communication is effected not only by words which must have the same meaning for giver and receiver, but also by attitudes, expressions and gestures. This is especially relevant to a consultation where patient and doctor are both givers and receivers.

4. To make sure that a communication has succeeded, information about its effects ('feedback') both immediate or subsequent is needed.

It is important that the training of Doctors does not become too focussed on the technological and biomedical dimensions of healthcare to the exclusion of a more holistic view of the patient. One major task of healthcare is to provide reassurance and comfort for those in distress about their illness. There is also a need to provide the patient with an explanation for illness as well as instructions as to how best to deal with it. Giving such information and support may be one of the most important tasks performed by the Doctors.

This module focuses on the need for better communication information and emotional support for patient. These skills are needed:

a) In the process of diagnosis of treatment. This includes the doctor ascertaining the patients concerns, worries and theories about the illness and responding appropriately.

b) To give information to patient regarding illness, its treatment and any side effects and making sure that these have been understood and remembered.

c) To give emotional support and care to patients of their families recognising their feelings, fears, distress and anxiety.

d) This module will help you to refine your skills in communication and patient physician interaction and relationship.

- To the patient, information is power.
- Proactive is better than reactive.
- Continuity of communication helps build loyalty.
- Patients aren't happy with you unless you treat them as a whole person, not a disease.
- You can make patients comfortable or break the ice or reduce fear by using some very specific, very simple behaviors that matter to the patient.
- Technical skills aren't the challenge. Interpersonal skills are.
- The successful physicians gain great satisfaction from their interpersonal skills, which they claim differentiate them from less successful physicians.
- The key skills are listening and seeing the patient as a whole person with a life apart from their ailments.

Patients prefer doctors who:

1. Maintain eye contact;
2. Smile often;
3. Appear relaxed, not rushed or nervous;
4. Lean towards patients during conversations; and
5. Assume a relaxed posture while interviewing.

It's not what you say... but the way that you say it.'
'Good communication is a patient's right.!
'Communication competence is seen as essential for all Doctors.

There are four elements to communication :

- Speaking • Writing • Listening • Body language

We are far more influenced by what we see than by what we hear :

- Words : 70% • Tone of voice : 38% • Body language : 55%

The aims of communicating are:

- To be heard • To be accepted • To be understood • To get action.

If one of these aims is not achieved, then good communication has not taken place.

Communication is an interaction which takes place between two or more persons.

It can be through, talking, writing, expression of face and eyes, gestures, listening, observing. We impart, pass on and transmit a message, ideas or information. We also share and exchange information. The word communication is derived from Latin word 'Communis' meaning common when two people communicate ideas, facts, feelings etc. are exchange to establish commonness.

Interpersonal Communication

When two or three persons communicate with each other then it is called as interpersonal communication. It is also called face to face communication. It is intimate and complete as feedback is immediate. It is a two-way process e.g. Doctor discussing with a lady about her menstrual problems.

Advantages

1. Communication gets feedback promptly.
2. It creates goodwill between the communicator and the receiver.
3. Discussion of sensitive topics like, gynecological problems etc. is possible in one to one situations.
4. Sender and receiver can maintain confidentiality.
5. As it is face to face the communicator can understand the needs of the receiver and make changes accordingly.

Establishing a good rapport with the patient

How can we can establish a good rapport with a patient? This is where our communication skills come in:

- **Our verbal skills :** the way we talk to the patient and ask questions;
- **Our non-verbal skills :** how we behave towards the patient.

1. Verbal

Most of the time when we communicate it is through verbal messages. It is difficult for the receiver to remember all that is said verbally and therefore there are chances of the message getting shortened, change or distorted.

Guidelines to communicate verbally.

1. Make sure your listener is relaxed and ready to listen.
2. While communicating a message remember to give reference in context to what is being said.
3. Proceed in some logical order.
4. Ask questions.
5. Repeat the message.

Verbal skills

- Always phrase your questions politely and respectfully, however busy or rushed you may be;
- Use words that the patient understands. Avoid using medical terms they may not understand;
- Make your questions specific, so that the patient knows exactly how to answer you;
- Ask one question at a time: double questions confuse;
- Keep your questions free of moral judgements;
- Avoid leading questions that ask the patient to agree with you: let people answer in their own words;
- Ask the patient's permission to question them about their STD or their sexual behaviour.

For better communication communicator (Doctor) must have following skills.

- **Communicate clearly** – he/she should be able to construct the message clearly so that the receiver can understand it correctly.
- **Listen actively** – he/she should be good listener. This will help him to understand the problems of receiver.
- **Knowledge** – he/she should have knowledge of the subject on which he/she is communicating.
- **Understand others** – other person's attitude always affect the communication so he/she must be able to understand other persons attitude.
- **Language** – the communicator must have command over the language in which he/she has to communicate with other.
- **Ask for feed back** – he/she should have the ability to ask questions to get feed back about communication.
- Along with all this skills he/she should have positive regard and respect for people.

Open and closed questions

When talking to anyone, there are broadly two sorts of questions we can ask : closed questions and open questions.

Closed questions are ones that ask a patient to answer in one word or a short phrase, often with "yes" or "no":

"Is the swelling painful?"
"Is your period late?"
"Do you have a regular partner?"

Open questions enable the patient to give a longer reply:
"What is troubling you?"
"What kind of medicines are you taking at the moment?"

Open-ended questions allow the patient to explain what's wrong or how they feel in their own words, and to tell you everything they think is important. Closed questions, on the other hand, ask the patient to answer a precise question in the service provider's words.

How can we best use the two types of question? Patients often have trouble revealing information about their own sexuality, so open questions will help them to be more comfortable when you begin the questions. Generally, you will also gather much more information from one open question than you can from a closed one.

There is another difficulty with using closed questions early in the interview – this is the danger of missing important information.

Experts in interviewing STD patients suggests that we need to ask "Anything else?" several times, because some patients are so embarrassed about STD symptoms that they present first with other, quite unrelated symptoms – such as a headache!

Once you are sure that you have a complete understanding of the patient's problem as he or she sees it, closed questions may be very helpful to draw out specific details that you need to know.

Other verbal skills

In addition to positive non-verbal behaviour and appropriate, respectful questioning, there are a number of additional skills which can be extremely useful when interviewing patients with STD. They can help you to deal supportively with the patient's emotions as well as to gather information effectively.

These are the six skills:

- facilitation
- summarising and checking
- reassurance
- direction
- empathy
- partnership.

Facilitation

Nodding the head and raising the eyebrows are two examples of non-verbal facilitation. Here is an example of spoken facilitation in practice:

Patient	:	I'm not sure... it's embarrassing.
Service provider	:	That's all right, I'm listening.
Patient	:	Well, it's that...
Service provider	:	Yes?
Patient	:	There's this sore...

The service provider can use words, phrases or other sounds to encourage the patient to continue speaking.

Direction

This is a useful approach when a patient is confused and doesn't know where to begin, or when they are talking quickly and mixing up issues of concern.

Patient	:	I don't know, it's been there for three weeks. What am I going to tell my husband? Will anyone get to know? I mean it, it is curable isn't it?
Service provider	:	Let's find out what the problem is first. We can deal with that, and then we can talk about your husband.

Direction relieves the frustration of the service provider and allows the patient to share concerns and worries more easily.

Summarising and checking

Summarising and checking allow you to ensure you have understood the patient correctly. The patient is also able to correct any misunderstanding.

Service provider	:	(Summarising) So you're worried what to say to your husband, and you feel very embarrassed about this condition. You want to know whether we can cure it. (Checking) Have I got that right?
Patient	:	That's right, What IS wrong with me?

Use this skill when the patient has mentioned a number of things that you want to confirm.

Empathy

This may be the most important skill of all when dealing with the patient's feelings. Upon noticing that a patient is tense or anxious, for example, you can express your empathy by commenting on what you have noticed:

Service provider : I can see that this is worrying you a good deal.

Patient : Yes, it's been bothering me for over a week now. I'm worried sick.

By showing empathy, you allow the patient to express his or her fears, and establish more open communication between you. Like facilitation, it encourages the patient to continue speaking.

Reassurance

While no-one likes to be patronised with expressions like "Don't worry, it will be all right", reassurance is important to show that you accept the patient's feelings and that the problem need not last forever:

Service provider : I can understand that you feel worried about symptoms like these. As soon as I confirm what's wrong with you, we can try to begin treatment that will make you better.

Patient : That's good. So what else do you need to know?

Partnership

This skill enables you to offer the patient a commitment – with you personally or the team of people you work with:

Service provider : You've done the right thing to come here for treatment. Before you leave I'll make quite sure you know everything you need to about preventing further infection. And we'll also find the best way to discuss this with your husband.

Patient : Oh thank you. I don't want this to happen again.

Most good service providers use some of these interviewing skills some of the time. The key to interviewing patients who may have an STD/RTI is to use all six skills most of the time.

2. Non Verbal :

Following aspects communicate the feelings emotion and interest to the receiver.

1. Looks : Simple and friendly of the communicator.
2. Tone of voice : Courtesy and kindness are important.
3. Body posture : Can convey anger, rudeness, courtesy, kindness.

Gesture hands and feet:

Communicate authority, friendliness concern.

The key to effective non-verbal behaviour is to treat the patient with respect, and give him or her your full attention:

- Provide the patient with privacy. Clearly, privacy and confidentiality are essential, so the interview must take place some where quiet where you won't be disturbed;
- Establish eye contact with the patient. Look directly at him or her; in this way you can watch for key feelings that will help you to respond appropriately. The only time to avoid eye contact is when a patient seems very angry, since a direct gaze could be interpreted as aggressive.
- Listen carefully to what the patient says. Show that you are listening by leaning forward slightly towards the patient; nod your head or comment occasionally to encourage them. Don't fidget or write while the patient is talking, and don't interrupt him or her.
- Sit if the patient is sitting and stand when the patient stands; stay as close to the patient as is culturally acceptable – much better to be beside a table or desk than behind one.

These four points are very simple and they can make the difference between gaining or losing the patient's trust or confidence.

Importance of interpersonal communication in Reproductive Health Programme

Interpersonal communication is very useful for the implementation of Reproductive Health programme at the grass root level as the family physician needs to build rapport with the patients as they are the first contact for seeking help / treatment.

Through interpersonal communication they can create friendly and co-operative atmosphere with the patients. Interpersonal communication can help them to get information about health problems of the patient. They can educate people about safe motherhood, family planning, contraception, communicable diseases etc. Inter personal is face to face and only two persons take part in it. The physician win the heart of the client and their confidence. She can understand and give education to him/her. He/she can maintain their privacy and dignity.

Listening and questioning

To help your clients, you must talk to them and they must talk to you. You have information to give them. But they have information that you need in order to help them. Some clients may find it hard to talk. You can help by LISTENING ACTIVELY and QUESTIONING EFFECTIVELY.

How Can You 'Listen Actively'

- Meet with your clients in a private, comfortable place.
- Accept your clients as they are. Treat each as an individual.
- Listen to what your clients say and how they say it. Notice their tone of voice, choice of words, facial expressions and gestures.
- Put yourself in your client's place as she or he talks.
- Keep silent sometimes. Give your clients time to think, as questions, and talk. Move at the client's speed.

- Listen to your client carefully instead of thinking what you are going to say next.
- Every now and then repeat what you have heard. Then both you and your client know whether you have understood.
- Sit comfortably, avoid distracting movements, and look directly at your client.

How Can You "Question Effectively"?

- Use a tone of voice that shows interest, concern and friendliness.
- Ask one question at a time. Wait for an answer.
- Ask questions that let clients tell you their reproductive health needs.
- Ask questions that cannot be answered "yes" or "no".
  These questions encourage clients to say more.
  Examples are: "How can I help you?" "What have you heard about....?"
- Use words such as "then?" "and?" "oh?" These encourage clients to keep talking.
- Avoid starting questions with "why." Sometimes "why" sounds as if you were finding fault with a person.
- Ask the same question in different ways if you think the client has not understood.

Reproductive health is a very private part of client's lives. When they talk about Reproductive health, they may feel embarrassed, confused, worried or afraid. These feelings may make choices difficult. Some feelings may lead to choices that clients are sorry about later.

Listening skills are crucial. Think of the benefits for the patient when you listen well. The patient:

1. Feels accepted as a person.
2. Is able to express himself or herself.
3. Feels less anxious or tense.
4. Feels good about you.
5. Becomes clearer about what is on his or her mind.

You reap just as many benefits. The doctor:

1. Develops a positive relationship with the patient.
2. Gains additional insights & understandings, which enhance future communication.
3. Obtains a complete, accurate message and can act on it correctly, if action is needed.
4. Saves time in the long run by listening in the short run.
5. Gets to know problems, attitudes, feelings, interests, ambitions, hobbies and many other things that can help you treat the patient.

How can you help clients deal with their feelings?

First, let them show their feelings. Help them talk about their feelings. Give them your full attention. Listen actively and question effectively. Watch their body movements and their expressions. These can tell you what clients are feeling.

Aims of Patient Interaction

1. Talk to the patient/couple
2. Listen to what is said and what is not said.
3. Identify concerns and help the patient to manage them.
4. Provide information about Reproductive health.
5. Assess psychological and emotional impact of these concerns of the patient.
6. Assure the patient that his views have been heard.
7. Help patient make informed decisions which might influence his / her behaviour.
8. Identify the patients ways of coping.
9. Encourage patients to make decisions and manage his or her life as circumstances Permit.

How to achieve these aims?

- Objective should be specific and achievable.
- Listen to patient's story and guide the conversation.
- Help the patient to view their problems differently.
- Assess patient's –
  - i) Mental state
  - ii) Main concern
  - iii) Additional Resources needed
- Help patient to manage anxiety.
- Avoid dependency.
- Respect patient's own ways of coping.
- Set boundaries, do not make false promises.
- Assumptions should not be noted, take nothing for granted.
- Make the patient comfortable.
- Pay attention – listen actively to verbal and non-verbal communication.
- Physician must never allow their own values or prejudices to influence their decisions.
- Confidentiality should be maintained.
- Physician should show empathy (putting oneself in patient's position).
- Physician needs to be sensitive to cultural issues.
- Physician must keep up with current knowledge and confine their knowledge with skills of listening, supporting and guiding.
- Physician gives new information separating facts from myths & instructing about available and potential resources.
- The word "Gather" to be kept in mind.

G - Greet the client in a friendly way.
A - Ask the client about his needs.
T - Tell the client about the available methods of treatment.
H - Help the client to decide.
E - Explain how to choose.
R - Return visit should be planned.

Summary

- Appreciate the importance of demonstrating your respect for each STD/RTI patient, by your welcome, the privacy and confidentiality you offer and your respect for their opinions and views.
- Keep your questions free of moral judgement;
- Use the patient's terms, or words that he or she understands easily;
- Request permission to ask personal questions or examine the patient;
- Distinguish between open and closed questions;
- Identify when to use an open or closed question;
- Recognise six additional verbal skills that will help you gather information and support the patient effectively:
  - facilitation
  - direction
  - summarising and checking
  - empathy
  - reassurance
  - partnership.

Compliance Instructions

Patients appreciate complete written instructions when they leave your office. For the main conditions you treat, you can preprint these or make a checklist that you can quickly fill out. To excel in the instructions you provide, ask patients in a focus group or waiting room conversation to look at the forms you use and point to anything they consider vague or obscure. For instance, if you say to take a certain medication three times a day, how should the patient handle night time? Can they take the medication at mealtime, on an empty stomach, or exactly when and how? The practice that preempts feelings of insecurity and wondering on the part of their patients stands out as user-friendly and patient-centered.

Also regarding style, show a few patients the items you're planning to make available. Ask a few patients kept waiting to take a look while they're waiting. Get consumer input into color, type style and layout.

Also, print big and bold. Especially for the sake of older patients, make sure the print isn't tiny. You want your patients to understand and remember their post-visit instructions-their medication doses and schedules. Your instruction sheets that show the current list of their medications with dosage and frequency can probably be enlarged on your copier, to make the print more readable. This tends to eliminate phone calls from some patients, and also shows consideration on your part.

There are several kinds of what is called noncompliance.

First, there are those patients who do not take your prescribed drugs because they did not understand the instructions.

Learn to communicate in their language.

Second, there are those patients who do not take your recommended drugs because they do not trust your opinion.

Learn to build trust and respect.

Third, there are those patients who do not take your drugs because they make them feel bad.

Learn to hear these people
They are often correct

Language is the most important tool the physician has.
Learn to respect and use it wisely.

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