

# **OBSTETRICS AND GYNAECOLOGY**

Obstetrics and Gynaecology include family welfare and family planning

## **1.GOAL**

The broad goal of the teaching of undergraduate students in Obstetrics and Gynaecology is that he/she should acquire understanding of anatomy, physiology and pathophysiology of the re-productive system and gain the ability to optimally manage com-mon conditions affecting it.

## **2.OBJECTIVES**

### **2.1. KNOWLEDGE**

At the end of the course, the student should be able to:

- 1.Outline the anatomy, physiology and pathophysiology of the reproductive system and the common conditions affecting it.
- 2.Detect normal pregnancy, labour puerperium and manage the problems he/she is likely to encounter therein.
- 3.List the leading causes of maternal and perinatal morbidity and mortality.
- 4.Understand the principles of contraception and various tech-niques employed, methods of medical termination of pregnancy, sterilisation and their complications.
- 5.Identify the use, abuse and side effects of drugs in pregnancy, premenopausal and post-menopausal periods.
- 6.Describe the national programme of maternal and child health and family welfare and their implementation at various levels.
- 7.Identify common gynaecological diseases and describe principles of their management.
- 8.State the indications, techniques and complications of surgeries like Caesarian section, laparotomy, abdominal and vaginal hyster-ectomy, Fothergill's operation and vacuum aspiration for M.T.P.

### **2.2. SKILLS**

At the end of the course, the student should be able to:

- 1.Examine a pregnant woman; recognize high risk pregnancies and make appropriate referrals.
- 2.Conduct a normal delivery, recognize complications and provide postnatal care.

3. Resuscitate the newborn and recognize congenital anomalies.
4. Advise a couple on the use of various available contraceptive devices and assist in insertion in and removal of intra-uterine contraceptive devices.
5. Perform pelvic examination, diagnose and manage common gynaecological problems including early detection of genital malignancies.
6. Make a vaginal cytological smear, perform a post coital test and wet vaginal smear examination for *Trichomonas vaginalis*, moniliasis and gram stain for gonorrhoea.
7. Interpretation of data of investigations like biochemical, histo-pathological, radiological, ultrasound etc.

### **2.3. INTEGRATION**

The student should be able to integrate clinical skills with other disciplines and bring about coordination of family welfare programmes for the national goal of population control

### **3. GENERAL GUIDELINES FOR TRAINING**

3.1. Attendance of a maternity hospital or the maternity wards of a general hospital including (i) antenatal care (ii) the management of the puerperium and (iii) a minimum period of 5 months in-patient and out-patient training including family planning

3.2. of this period of clinical instruction, not less than one month shall be spent as a resident pupil in a maternity ward of a general hospital.

3.3. During this period, the student shall conduct at least 10 cases of labour under adequate supervision and assist in 10 other cases.

3.4. A certificate showing the number of cases of labour attended by the student in the maternity hospital and/or patient homes respectively, should be signed by a responsible medical officer on the staff of the hospital and should state:

3.4.1. that the student has been present during the course of labour and personally conducted each case, making the necessary abdominal and other examinations under the supervision of the certifying officer who should describe his/her official position.

3.4.2. that satisfactory written histories of the cases conducted including wherever possible antenatal and postnatal observations, were presented by the student and initialed by the supervising officer

### **4. DEPARTMENT OBJECTIVES**

At the end of the training in Obstetrics and Gynaecology the M.B.B.S. student should be able to:

- 4.1. Appreciate the socio-cultural, economic and demographic factors that influence the practice of Obstetrics and Gynaecology.
- 4.2. Appreciate the principles of reproductive anatomy and physiology.
- 4.3. Understand the preconception, antenatal, intranatal and post-natal factors including drugs that affect the mother and foetus.
- 4.4. Recognize the changes and adaptation that occur in the mother during pregnancy, labour and puerperium.
- 4.5. Impart antenatal care, detect deviations from normal pregnancy and refer risk cases appropriately.
- 4.6. Manage normal labour, recognize the factors that may lead to complications and refer such cases appropriately.
- 4.7. Institute primary treatment in Obstetrics and Gynaecological emergencies
- 4.8. Resuscitate and take adequate care of the newborn.
- 4.9. Assist couples with infertility and those requiring contraception.
- 4.10. Know the aetiopathology and management of menstrual abnormalities.
- 4.11. Know about the benign and malignant tumors of the genital tract and appreciate the need for screening and prevention.
- 4.12. Recognize the importance of infections and other diseases of the genital tract and give appropriate treatment.
- 4.13. Know about the displacements of genital tract and injuries.
- 4.14. Understand the implications of medicolegal and ethical issues concerning the speciality.
- 4.15. Acquire communication, decision making and managerial skills.
- 4.16. Acquire skills to perform Obstetrical and Gynaecological examinations and certain minor investigations and therapeutic operative procedures.

## **5. SYLLABUS**

### **5.1. THEORY**

#### **5.1.1. OBSTETRICS**

##### **1.BROAD PERSPECTIVES**

Vital statistics, birth rate, maternal mortality, perinatal and neo-natal mortality, live birth, still birth, abortion, period of viability including definitions of all the above.

## **2.ANATOMY OF THE FEMALE REPRODUCTIVE TRACT**

Basic Anatomy: Relationship to other pelvic organs - Applied Anatomy as related to Obstetric and Gynaecological surgery

## **3.PHYSIOLOGY OF CONCEPTION**

Gametogenesis - Ovulation, menstruation, fertilization and im-plantation.

## **4.DEVELOPMENT OF FOETUS AND PLACENTA**

Basic embryology, factors influencing foetal growth and de-velopment; anatomy of placenta - Teratogenesis, placental barrier.

## **5.DIAGNOSIS OF PREGNANCY**

Clinical features; differential diagnosis; principles underlying the pregnancy test - Immunological tests and their interpretation; ul-tra-sonogram

## **6.MATERNAL CHANGES IN PREGNANCY**

Genital tract, cardiovascular system and hematology - Respi-ratory and gastrointestinal system

## **7.ANTENATAL CARE**

Objectives of antenatal care ; assessment of period of gesta-tion; detect abnormality with the help of gravidogram; clinical moni-toring of maternal and foetal well-being; detect normal foetal pel-vic relation (obstetrical palpation); advise immunization against teta-nus; basic investigations - Foetal well-being : biophysical monitor-ing ; pelvic assessment.

## **8.COMPLICATIONS OF EARLY PREGNANCY**

Abortions: Definition, Types, Causes; Management of incom-plete, inevitable abortion - Ectopic Pregnancy: Clinical features; differential diagnosis of acute abdomen; principles of surgical man-agement; Causes and conservative management of ectopic preg-nancy - Hyperemesis Gravidarum : Aetiopathology; Impact on maternal and foetal health; principles of management - Gestational Trophoblastic Tumours: Clinical features; differential diagnosis; principles of management ; follow up; Laboratory investigations and ultrasonography.

## **9.ANTEPARTUM HAEMORRHAGE**

Classification; clinical features ; differential diagnosis ; prin-ciples of management - Aetiopathology; ultrasonography; compli-cations and management.

## **10. ABNORMAL PRESENTATIONS AND CONTRACTED PELVIS**

Causes, salient features; principles of management of occipito-posterior, face and brow presentation - Obstructed labor: definition, clinical features, prevention; mechanism of breech delivery

### **11. MULTIPLE PREGNANCIES**

Clinical features; diagnosis and complications ; principles of management ; investigations - Causes : management.

### **12. PREGNANCY - INDUCED HYPERTENSION**

Definition; early detection; investigations; principles of management of pregnancy - induced hypertension and eclampsia -Aetiopathology; differential diagnosis of convulsions in pregnancy; complications of eclampsia

### **13. ANAEMIA IN PREGNANCY**

Aetiology; classification; diagnosis; investigations; adverse effect on the mother and foetus; management during pregnancy and labour

### **14. OTHER MEDICAL DISORDERS LIKE HEART DISEASE / DIABETES MELLITUS / URINARY TRACT INFECTION / VIRAL INFECTIONS**

Clinical features; early detection; effect of pregnancy on the disease and impact of the disease on pregnancy - Complications of the diseases

### **15. NORMAL LABOUR**

Physiology; mechanism in occipito - anterior presentation -Monitoring : Partogram; conduct of labour; pain relief

### **16. MANAGEMENT OF THIRD STAGE OF LABOUR**

Active management of third stage of labour (AMTSL) - Complications: Predisposing factors; prevention; management of atonic post-partum hemorrhage - Management of injuries to the lower genital tract.

### **17. UTERINE DYSFUNCTION**

Classification; recognition of uterine dysfunction; principles of induction and acceleration of labour

### **18. FOETAL DISTRESS AND FOETAL DEATH**

Clinical features; causes; diagnosis; principles of management; prevention

### **19. HAEMOLYTIC DISEASE INCLUDING Rh ISO IMMUNISATION**

Mechanism; Prophylaxis; foetal complications

## **20. PUERPERIUM**

Physiology; clinical features; complications: recognition and principles of management; prevention of puerperal sepsis.

## **21. BREAST FEEDING**

Physiology of lactation; care of breast; counselling regarding breast feeding; mastitis and breast abscess.

## **22. CARE OF NEW BORN**

Assessment of maturity; detect asphyxia; principles of resuscitation; common problems.

## **23. MEDICAL TERMINATION OF PREGNANCY**

Legal aspects; indications; methods; complications - Management of complications

## **24. CONTRACEPTION**

Various methods and devices; selection of patients; counseling of couples; side effects; failures and complications

## **25. OPERATIVE OBSTETRICS**

Indications, technique and complications for episiotomy, vacuum extraction; low forceps, instrumental evacuation; menstrual regulation - Indications and steps of operation: Caesarean section; assisted breech delivery; external cephalic version; cervical cerclage; intra-amniotic instillation.

## **26. POST-CAESAREAN PREGNANCY**

Risks; identification of scar dehiscence

## **5.1.2. GYNAECOLOGY**

### **1. PHYSIOLOGICAL VAGINAL DISCHARGE**

Clinical characteristics

### **2. PATHOLOGICAL VAGINAL DISCHARGE**

Aetiology; characteristics; clinical recognition; investigation; treatment of common causes; genital hygiene

### **3. ABNORMAL & EXCESSIVE MENSTRUAL BLEEDING**

Definitions: classification of causes; clinical features; principles of investigation; diagnosis and management

#### **4.AMENORRHOEAS**

Causes; principles of management

#### **5.DYSFUNCTIONAL UTERINE BLEEDING**

Aetiopathology; classification; clinical aspects and diagnosis; principles of investigation and management - Hormone therapy; management options

#### **6.FERTILITY AND INFERTILITY**

1.Causes in male and female; Physical examination of both female and male partners; essential investigations and interpretation.

2.Management options; Principles of Medically Assisted Reproductive Technology (MART).

#### **7.ENDOMETRIOSIS & ALLIED STATES**

Aetiopathology; clinical features; principles of investigation and management - Implications on health and fertility

#### **8.GENITAL INJURIES & FISTULAE**

Causes; prevention; clinical features; principles of management

#### **9.GENITAL INFECTIONS**

STD, AIDS and Pelvic Tuberculosis - Infections affecting in-dividual organs - Aetiology; Pathology; clinical features; differen-tial diagnosis; principles of basic investigation; medical therapy -Long term implications; surgical management.

#### **10.DISPLACEMENTS OF UTERUS**

Genital Prolapse: Aetiology; clinical features; differential diag-nosis; principles of management; preventive aspects

#### **11.BENIGN TUMOURS OF PELVIC ORGANS**

Ovarian and Uterine tumours: Types; Aetiology; clinical fea-tures; differential diagnosis; principles of management

#### **12.MALIGNANCY OF GENITAL TRACT**

1.Cancer cervix uteri: Aetiopathology; clinical features; screening procedures; investigations; diagnosis; principles of management.

2.Epidemiological aspects; management options.

### **13. OPERATIVE GYNAECOLOGY**

Indications, technique and complications: Dilatation and Curet-tage (D & C); Fractional curettage; cervical biopsy – Indications and steps of abdominal hysterectomy; surgery for ovarian tumours; vaginal surgery for utero-vaginal prolapse - Laparoscopy; colpos-copy; hysteroscopy; management of postoperative complications- Re surgery in Gynaecology - Post-operative complications and their management.

#### **5.2. PRACTICAL**

5.2.1. Obtain a proper relevant history and perform a humane and thorough clinical examination including internal examinations (per-rectal and per-vaginal) in adults and children.

5.2.2. Arrive at a logical working diagnosis after examination.

5.2.3. Order appropriate investigations keeping in mind their need, relevance and cost effectiveness.

5.2.4. Plan and institute a line of treatment which is need based, cost effective and appropriate for common ailments taking into consideration:

**5.2.4.1. Patient**

**5.2.4.2. Disease**

**5.2.4.3. Socio-economic status**

**5.2.4.4. Institutional/Governmental guidelines.**

5.2.5. Recognize situations which call for urgent or early treatment at secondary and tertiary centres and make a prompt referral of such patients after giving first aid or emergency treatment.

5.2.6. Demonstrate interpersonal and communications skills benefiting a physician in order to discuss the illness and its out-come with patient and family.

5.2.7. Determine gestational age.

5.2.8. Maintain an ethical behavior in all aspects of medical practice.

5.2.9. Obtain informed consent for any examination/procedure.

5.2.10. Motivate colleagues, community and patients to participate actively in national health programmes.

5.2.11. Write a complete case record with all necessary details.

5.2.12. Write a proper discharge summary with all relevant information.



- 5.2.13. Write a proper referral note to secondary or tertiary centres or to other physicians with all necessary details.
- 5.2.14. Assess the need for and issue proper medical certificates to patients for various purposes.
- 5.2.15. Organize antenatal, postnatal, well-baby and other clinics.
- 5.2.16. Plan and manage health camps such as family welfare camp.
- 5.2.17. Adopt universal precautions for self-protection against HIV and hepatitis and counsel patients.
- 5.2.18. Do and examine a wet film of vaginal smear for Trichomonas and fungus.
- 5.2.19. Take a pap smear.
- 5.2.20. Take punch biopsy of cervix.
- 5.2.21. Conduct normal vaginal delivery.
- 5.2.22. Do artificial rupture of membranes.
- 5.2.23. Perform and suture episiotomies.
- 5.2.24. Assist in application of outlet forceps.
- 5.2.25. Assist in postpartum tubectomy.
- 5.2.26. Assist in performing MTP in the first trimester and be able to do evacuation in incomplete abortion.
- 5.2.27. Assist in Insertion and removal of IUCD.
- 5.2.28. Be able to diagnose and provide emergency management of antepartum and postpartum haemorrhage.

### **5.3. INTEGRATED TEACHING**

Family Planning - Embryology: Integrated foetal growth and development - Acute abdomen - Care of newborn - Prescribing in Pregnancy - Nutrition & Anaemia in Pregnancy - Physiological changes - Neonatal resuscitation problems.