

OBSTETRICS AND GYNAECOLOGY

Departmental Objectives: At the end of training in Obstetrics and Gynaecology, the student will be able to:

1. Appreciate the socio-cultural, economic and demographic factors that influence the practice of Obstetrics & Gynaecology.
2. Appreciate the principles of reproductive anatomy and physiology.
3. Understand the preconceptual, antenatal, intranatal and postnatal factors that affect the mother and foetus.
4. Recognise the changes and adaptation that occur in the mother during pregnancy, labour and puerperium.
5. Impart antenatal care, detect deviations from normal pregnancy and refer risk cases appropriately.
6. Know the management of normal labour, be aware of the factors that deviate labour from its normal course and refer such cases appropriately.
7. Institute primary treatment in Obstetric and Gynaecological emergencies.
8. Resuscitate and take adequate care of the new born.
9. Assist couples with infertility and those requiring contraception.
10. Know the normal menstrual cycle, aetiopathology and management of menstrual abnormalities.
11. Know about the benign and malignant tumours of the genital tract and appreciate the need for screening and prevention.
12. Recognise the importance of infections and other diseases of the genital tract.
13. Know about the displacements of genital tract and injuries.
14. Understand the implications of medico-legal and ethical issues concerning the speciality.
15. Acquire communication, decision making and managerial skills.
16. Acquire skills to perform - Obstetrical & Gynaecological examinations and certain minor investigations and therapeutic operative procedures.

COURSE CONTENT OBSTETRICS:

1. **Anatomy of female reproductive tract**

Must know: Anatomy of internal and external reproductive organs including their relationship to other pelvic organs..

Should know: Applied anatomy as related to Obstetrics and Gynaecology

May know: Abnormal variants of internal and external reproductive organs

2. **Physiology of conception:**

Must know: Gametogenesis, Ovulation, menstruation, fertilisation and implantation Spermatogenesis.

Should know: Normal semen parameters, disorders of ovulation

May know: Clinical applications pertaining to ART

3. **Development of fetus and Placenta:**

Must know: Basic embryology. Development and structure and functions of placenta. Fetal development and growth at various gestational ages.

Should know: Abnormalities of placenta and cord. Teratogenic agents and drugs to be avoided / contraindicated in early pregnancy.

May know: Changes of fetal circulation at birth

4. **Diagnosis of Pregnancy:**

Must know: Clinical symptoms and signs of early pregnancy Dating in early pregnancy including USG dating Various tests to diagnose pregnancy

Should know: Congenital anomalies that can be diagnosed in early pregnancy

May know: Level 1 and Level 2 USG

5 **Maternal Changes during Pregnancy**

Must know: The physiological changes in Blood, Cardiovascular, Respiratory, urinary tract and gastrointestinal tract

Should know : Differentiation between physiological and pathological changes

May know: Clinical management

6 **Antenatal care**

Must Know; Objectives of antenatal care, clinical diagnosis of pregnancy and differential diagnosis, Monitoring of fetal growth by Gravidogram, Relevant and basic investigations like Hb for screening anaemia and blood group and Rh typing Nutritional requirements, Drug prescription, Immunisation during pregnancy

Should know Diagnosis of malpresentation, antenatal fetal surveillance. Pelvic assessment.

May know: Diagnosis and management of fetal congenital anomalies PCPNDT Act .

7 **Complications of Early pregnancy**

Must know Various types of abortions including septic abortion, definitions, causes, investigations and their management. Diagnosis of Ectopic pregnancy and management. Gestational Trophoblastic Diseases.

Should know Modern management of ectopic pregnancy.

May know: Chemotherapy for Gestational Trophoblastic Neoplasia.

8. **Hyperemesis Gravidarum**

Must know: Aetiopathogenesis, investigations and management

Should know: Differential diagnosis

May know: Unusual complications of hyperemesis and management

9. Antepartum haemorrhage

Must know Classification, clinical features, differential diagnosis, investigation including USG features, management and complications.

Should know Management of Complications like DIC.

May know: Surgical management of APH. Adherent placenta, predisposing factors and management.

10. Malpresentations and malpositions and CPD

Must know Causes, clinical findings, definitive diagnosis of malpresentations and malpositions and mechanism of labour in such cases Causes of contracted pelvis and diagnosis and management
Diagnosis of CPD and Trial of labour

Should know: Definition of Obstructed labour and rupture uterus, causes, clinical features and management. Prevention of obstructed labor.

May know Various types of Pelvis.

11. Multiple pregnancy

Must know Causes, diagnosis, differential diagnosis, complications in pregnancy and labour and management

Should know Mechanism of twin to twin transfusion and management

May know Management of single fetal demise. Higher order pregnancy.

12. Amniotic fluid disorders

Must know Types, Causes, diagnosis, investigations and management

Should know: Associated complications

May know Recent trends in management

13. Hypertensive disorders of Pregnancy

Must know Classification, diagnosis, investigations and management of Gestational hypertension, preeclampsia, and Eclampsia and complications Predictive tests &Prevention of pre-eclampsia and Eclampsia

Should know: Management of complications of Hypertensive disorders and chronic hypertension and renal disease.

May know: Differential diagnosis of convulsions in a pregnant woman

14. Anaemia during pregnancy

Must know Causes, classification of various types of anaemias and their diagnosis, Nutritional anaemias and their management. Prevention of anaemia

Should know Maternal and fetal complications of anemia

May know: Management of Non-nutritional anaemias in pregnancy

15. Diabetes mellitus and pregnancy

Must know Classification, Diagnosis, Screening for GDM and management of Diabetes during pregnancy and labour. Recent advances in diagnosis and management

Should know Complications of diabetes and their management

May know: Management of neonate of diabetic mother

16. Heart disease and pregnancy

Must know Classification, evaluation, diagnosis and management during pregnancy and labour.

Should know: Complications of heart disease in pregnancy and labor. Contraception.

May know Aetiopathogenesis of cardiac disease in pregnancy. Surgical management during pregnancy.

17. Intrauterine- Growth restriction and Intra uterine fetal demise

Must know Causes, diagnosis and management

Should know: USG and Doppler characteristics in IUGR

May know Recent advances in management

18. Infections during pregnancy

Must know UTI, Malaria, Syphilis, Tuberculosis, Hepatitis, HIV and TORCH infections during pregnancy and their management

Should know: Maternal and fetal complications

May know: Recent advances

19. Preterm labour and Post-dated pregnancy

Must know Causes, diagnosis, prevention and management of preterm labour. Evaluation and management of Post-dated pregnancy.

Should know Various Tocolytics. Neonatal problems of Preterm and post-term babies

May know Cervical cerclage surgeries

20. Rh Negative Pregnancy

Must know Diagnosis, evaluation and management Prevention of Rh Isoimmunisation Management of Haemolytic disease of New born

Should know In-utero management of Rh iso-immunised fetus

May know Neonatal management

21. Normal labour

Must know Physiology, mechanism and conduct of normal labour Monitoring in various stages and abnormal labour or dysfunctional labour. Partogram. Diagnosis and management of fetal distress Active management of third stage of labour and complications

Should know: Diagnosis and management of abnormal labor and Non Stress Test

May know: Pain relief during labour

22. Postpartum haemorrhage

Must know Definition, types, diagnosis and management of PPH. Types of Oxytocics, dosage and contraindications.

Should know Retained placenta, manual removal of placenta.

May know Management of Inversion of uterus. Rupture uterus and its management.

23. Induction/Augmentation of labour

Must know Pre-requisites for induction. Various methods of cervical ripening. Various methods /drugs for augmentation of labour

Should know Complications and contra-indications for induction.

May know Failed induction.

24. Operative Obstetrics

Must know Indications, technique & complications of episiotomy. Indications, technique of Caesarean section, Forceps and vacuum deliveries Assisted breech delivery

Should know: Complications of Caesarean section and operative vaginal deliveries.

May know Destructive operations in Obstetrics. Breech extraction

25. Post-caesarean pregnancy

Must know Evaluation of a case of post-caesarean pregnancy and management. Monitoring of a case of post-caesarean in labour and complications of VBAC.

Should know Indications for repeat Caesarean section.

May know: Complications of Caesarean at repeat CS.

26. Puerperium

Must know Course of Normal Puerperium and complications of Puerperium like Puerperal sepsis and its diagnosis and management and prevention. Breastfeeding and common problems of lactation

Should know:Care of neonate and infant and Immunisation schedule

May know: Diagnosis and management of DVT. Lactational failure.

27. Contraception

Must know Cafeteria approach, various methods of contraception, advantages, side-effects, failure rates. Selection of patients and counselling ;IUCD Insertion and removal. Emergency contraception, tubectomy; vasectomy, complications and failure rates.

Should know Failure rates of each method.

May know : Implants, rings , patches. Newer methods of contraception.

28. Medical termination of Pregnancy

Must know MTP Act, Indications, Contraindications, Various methods of First trimester and Second trimester termination and their complications. Concurrent contraception.

Should know Management of complications of various methods of MTP

May know Pharmacotherapeutics of drugs

29. Perinatal and Maternal mortality in INDIA

Must know Definition of PNMR & MMR. Causes and prevention of Perinatal and maternal mortality.

Should know PNMR and MMR- National perspective

May know Near miss maternal mortality

GYNAECOLOGY

1. Vaginal discharge

Must know Physiological and pathological causes of vaginal discharge Clinical characteristics, Investigations for diagnosis, management

Should know: Syndromic approach, NACO kits

May know: Long term complications

2 .Amenorrhoea

Must know Classification of Primary and Secondary amenorrhoea , investigations and principles of management

Should know Details of management.

May know: Fertility management

3 Abnormal uterine bleeding

Must know Normal menstrual pattern and physiology of menstrual cycle. Various bleeding patterns like HMB, metrorrhagia and polymenorrhoea - Causes, investigations, diagnosis of AUB Definition, Etiology and classification of DUB (PALMCOIEN) and its management

Should know Role of transvaginal sonography and sonosalpingography

May know: Surgical management

4. Infertility

Must know Definition of Infertility. Causes and investigation of a couple with infertility; semen analysis. Causes of anovulation and induction of ovulation. Tests for ovulation & tubal patency

Should know Management of tubal factors of infertility including re-canalisation.

May know ART and their success, counselling for ART

5. **Pelvic organ prolapse**

Must know Classification. causes, diagnosis. investigations and management in relation to age and parity. Preventive aspects of pelvic organ prolapse

Should know Prolapse surgeries

May know: Nulliparous prolapse

6. **Urinary Incontinence**

Must know Classification; differential diagnosis and Investigations. Approach to case of urinary incontinence.

Should know: Management of Stress urinary incontinence

May know Surgeries for Stress urinary incontinence

7. **Benign tumours of Internal reproductive organs**

Must know Causes. Investigations, complications and management of fibroid uterus, Ovarian cysts, Endometriosis

Should know Conservative surgery

May know Recent advances in management

8. **Uterine anomalies**

Must know Classification and diagnosis, clinical aspects and reproductive outcome

Should know: indications for surgical management

May know Surgical procedures for specific anomalies

9. **Pelvic Inflammatory disease**

Must know Definition, causes, sequelae and management of PID Sexually transmitted infections and their prevention

Should know Genital tuberculosis diagnosis and management (in detail. Prevention of PID

May know: Inpatient management of PID

10. **Genital tract injuries and Genital fistulae**

Must know Degrees of perineal tear and management. Causes, clinical features and diagnosis of genital fistulae and their management

Should know: Prevention of Obstetric fistulae

May know Operative techniques and complications. Post-coital injuries and operative injuries to urinary tract.

11 Pre-malignant lesions and Malignancies of genital tract

Must know Etiology and Pathology, Classification, diagnosis of pre-malignant and malignant lesions of vulva, vagina. Cervix, uterus and ovary Screening for carcinoma cervix Clinical and

Surgicopathological Staging and principles of management of cervical, endometrial cancer and ovarian cancer

Should know Screening for Breast and endometrial and ovarian malignancies Chemotherapy and Radiotherapy of Carcinoma cervix including adverse effects Chemotherapy of Ovarian cancer

May know: Surgical management of gynaecological malignancies

12 Operative Gynaecology

Must know Indications, technique and complications of Dilatation and Curettage and Fractional curettage, Vaginal hysterectomy, Ward Mayo's operation, Manchester repair, Abdominal Hysterectomy, Ovariectomy. Tubal recanalisation and diagnostic laparoscopy. Diagnosis and principles of management of post-operative complications

Should know Staging laparotomy for endometrial and ovarian malignancy. Indications and techniques of Colposcopy, Hysteroscopy and Operative laparoscopy. Detailed management of various post-operative complications.

May know: Basic principles of robotic surgeries

13 Problems of Adolescence and menopause

Must know Menopausal symptoms and management of menopause, HRT. Causes and investigations of post-menopausal bleeding, normal and abnormal puberty.

Should know Management of PCOS and precocious puberty. Tanner staging.

May know: Disorders of sexual differentiation. Ferriman Galway scoring.

SKILLS

1. Communication skills

Must acquire History taking skills- Present and past Obstetric history, Menstrual history, History of Medical and Surgical disorders if any, Socioeconomic history, Dietary history Family history and treatment history
Counseling for contraception, Breast feeding

2. Clinical skills

Must acquire **A. General Physical examination and Systemic Examination**

B. Obstetric examination Per abdominal examination *Diagnosis of early pregnancy
*Measurement of symphysis fundal height, abdominal girth * Plotting Gravidogram to monitor fetal growth * Obstetric palpation to know the lie, Presentation and position of fetus

C. Diagnosis and Monitoring Labour * Appreciate Normal Uterine contractions by palpation *Fetal heart normality *Station of presenting part *Plotting a Partogram and recognition of deviations from normal Catheterisation of bladder during labour Technique of ARM Conduct of normal labour including active management of III stage Technique of Episiotomy and its suturing Recognition of Perineal tears and suturing Exploration of Genital tract for injuries after delivery Care of Normal New-born and resuscitation of asphyxiated New-born

D. Gynaecological examination

Must acquire Inspection and recognition of various parts of external genitalia Recognition of perineal body and anus Per speculum examination and recognition of Unhealthy cervix and growth on cervix Technique of Pap smear collection Bimanual pelvic examination to know the size and position of uterus and presence and absence of adnexal mass Identification of cystocele, rectocele and enterocele and descent of cervix Technique of rectal examination Technique of cervix biopsy Technique of Schiller's test and acetic acid test Technique of IUCD insertion and removal

Recommended Books Latest editions of the following books are recommended Obstetrics: 1. Manual of Obstetrics, Edited by Daftary SN, and Daftary GS Published by Elsevier, New Delhi, India. 2. Text Book Of Obstetrics Sheila Balakrishnan Published by Paras Medical Publisher 3. Williams Obstetrics, 24th Edition, Study Guide (Obstetrics)1 November 2014 4. Munro Kerr's Operative Obstetrics 12th Edition by Baskett 5. Holland And Brews Manual Of Obstetrics Paperback - 1998 5. Mudaliar and Menon's Clinical Obstetrics Edited by Gopalan Sarala and Jain Vanita Published by Orient Longman, Chennai, INDIA. 6. Textbook of Obstetrics Paperback - 2017 by J.B. Sharma.

Gynaecology: 1. Howkins & Bourne Shaw's Text book of Gynaecology edited by Padubidri VG and Daftary SN Published by Elsevier 2. Jeffcoate's Principles of Gynaecology Hardcover - 2014 by Malhotra Narendra 3. Williams Gynecology, 3rd Edition (2016 4. Shaw's Text book of Operative Gynaecology Revised by Hudson CN and Setchell ME Published by Reed Elsevier India Pvt., Ltd.