



YENEPOYA

(DEEMED TO BE UNIVERSITY)

Recognized under Sec 3(A) of the UGC Act 1956

Accredited by NAAC with 'A' Grade

YENEPOYA (DEEMED TO BE UNIVERSITY)

Deralakatte, Mangaluru -575018

REGULATIONS AND CURRICULUM GOVERNING

POSTGRADUATE PROGRAM (MS) IN

OBSTETRICS AND GYNAECOLOGY (OBG)

(REVISED CURRICULUM – AMENDED UP TO 2019)

ATTESTED
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NOTIFICATION - 34-ACM/2019 dtd. 20.02.2019

Sub:- Implementation of Competency Based Medical Education PG Curriculum
Ref. : Resolution of the Academic Council at its 34th Meeting held on 08.02.2019 vide
Agenda 33

The Academic Council at its 34th Meeting held on 08.02.2019 and subsequently the 45th meetings of Board of Management held on 09.02.2019 have accepted the proposal for implementation of Competency Based Medical Education (CBME) for the PG Curricula of the following programs as per the MCI Norms.

1. MD in Pathology
2. MD in General Medicine
3. MD in Anaesthesiology
4. MD in Paediatrics
5. MD in Respiratory Medicine
6. MD in Radio-diagnosis
7. MD in Anatomy
8. MD in Physiology
9. MD in Biochemistry
10. MD in Microbiology
11. MD in Pharmacology
12. MD in Forensic Medicine
13. MD in Psychiatry
14. MD in Dermatology
15. MD in Community Medicine
16. MS in General Surgery
17. MS in OBG
18. MS in Otorhinolaryngology
19. MS in Ophthalmology
20. MS in Orthopaedics

This revised curriculum shall come into effect from the academic year 2019-2020 onwards.

REGISTRAR

Yenepoya (Deemed to be) University,
University Road, Deralakatta
Mangalore 575 018

GUIDELINES FOR COMPETENCY BASED POSTGRADUATE TRAINING PROGRAMME FOR MS IN OBSTETRICS AND GYNAECOLOGY

SUBJECT SPECIFIC LEARNING OBJECTIVES

Programme Objectives

The goal of the MS course in Obstetrics and Gynaecology is to produce a competent Obstetrician and Gynaecologist who can:

- a. Provide quality care to the community in the diagnosis and management of Antenatal, Intra-natal and Post-natal period of normal and abnormal pregnancy and labor.
- b. provide effective and adequate care to a pregnant woman with complicated pregnancy.
- c. provide effective and adequate care to a normal and high risk neonate.
- d. perform obstetrical ultrasound in normal and abnormal pregnancy including Doppler.
- e. manage effectively all obstetrical and gynecological emergencies and if necessary make appropriate referrals.
- f. provide quality care to the community in the diagnosis and management of gynaecological problems including screening, and management of all gynecological cancers including during pregnancy.
- g. conduct a comprehensive evaluation of infertile couple and have a broad based knowledge of assisted reproductive techniques including – ovulation induction, *in vitro* fertilization and intra-cytoplasmic sperm injection, gamete donation, surrogacy and the legal and ethical implications of these procedures.
- h. provide counseling and delivery of fertility regulation methods including reversible and irreversible contraception, emergency contraception etc.
- i. provide quality care to women having spontaneous abortion or requesting Medical Termination of Pregnancy (MTP) and manage their related complications.

SUBJECT SPECIFIC COMPETENCIES

A. Cognitive Domain

At the end of the MS Course in Obstetrics and Gynaecology, the student should have acquired knowledge in the following:

- recognizes the health needs of women and adolescents and carries out professional obligations in keeping with principles of National Health Policy and professional ethics

- has acquired the competencies pertaining to Obstetrics and Gynaecology that are required to be practiced in the community and at all levels of health system
- on genetics as applicable to Obstetrics.
- on benign and malignant gynecological disorders.
- on Gynecological Endocrinology and infertility.
- on interpretation of various laboratory investigations and other diagnostic modalities in Obstetrics & Gynecology.
- on essentials of Pediatric and adolescent Gynecology.
- on care of postmenopausal women and geriatric Gynecology.
- on elementary knowledge of female breast & its diseases.
- on vital statistics in Obstetrics & Gynecology.
- Anesthesiology related to Obstetrics & Gynecology.
- Reproductive and Child Health, family welfare & reproductive tract infections.
- STD and AIDS & Government of India perspective on women's health related issues.
- Medico-legal aspects in Obstetrics & Gynecology.
- Asepsis, sterilization and disposal of medical waste.
- be able to effectively communicate with the family and the community
- is aware of the contemporary advances and developments in medical sciences as related to Obstetrics and Gynaecology.
- maintain medical records properly and know the medico-legal aspects in respect of Obstetrics & Gynecology
- Understands the difference between audit and research and how to plan a research project and demonstrate the skills to critically appraise scientific data and literature
- has acquired skills in educating medical and paramedical professionals

Ethical and Legal Issues:

The post graduate student should understand the principles and legal issues surrounding informed consent with particular awareness of the implication for the unborn child, postmortem examinations consent to surgical procedures including tubal ligation/vasectomy, parental consent and medical certification, research and teaching and properly maintain medical records.

Risk Management:

The post graduate student should demonstrate a working knowledge of the principles of risk management and their relationship to clinical governance and complaints procedures.

Confidentiality:

The post graduate student should:

- be aware of the relevant strategies to ensure confidentiality and when it might be broken.
- understand the principles of adult teaching and should be able to teach common practical procedures in Obstetrics and Gynaecology and involved in educational programme in Obstetrics and Gynaecology for medical and paramedical staff.
- be abreast with all recent advances in Obstetrics and Gynaecology and practice evidence based medicine.

Use of information technology, audits and standards:

The post graduate student should:

- acquire a full understating of all common usage of computing systems including the principles of data collection, storage, retrieval, analysis and presentation.
- understand quality improvement and management and how to perform, interpret and use of clinical audit cycles and the production and application of clinical standards, guidelines and protocols.
- understand National Health Programmes related to Obstetrics and Gynaecology and should be aware of all the Acts and Laws related to specialty.

Health of Adolescent Girls and Post-Menopausal Women

The student should:

- Recognize the importance of good health of adolescent and postmenopausal women.
- Identification and management of health problems of post-menopausal women.
- Understanding and planning and intervention program of social, educational and health needs of adolescent girls and menopausal women.
- Education regarding rights and confidentiality of women's health, specifically related to reproductive function, sexuality, contraception and safe abortion.
- Geriatric problems.

Reproductive Tract and 'HIV' Infection

- Epidemiology of RTI and HIV infection in Indian women of reproductive age group.
- Cause, effect and management of these infections.
- HIV infections in pregnancy, its effects and management.
- Relationship of RTI and HIV with gynaecological disorders.
- Planning and implementation of preventive strategies.

Medico-legal Aspects

- Knowledge and correct application of various Acts and Laws while practicing Obstetrics and Gynaecology, particularly MTP Act and sterilization, Preconception and P.N.D.T. Act.
- Knowledge of importance of proper recording of facts about history, examination findings, investigation reports and treatment administered in all patients.
- Knowledge of steps recommended for examination and management of rape cases.
- Knowledge of steps taken in the event of death of a patient.

B. Affective domain

1. Should be able to function as a part of a team, develop an attitude of cooperation with colleagues, and interact with the patient and the clinician or other colleagues to provide the best possible diagnosis or opinion.
2. Always adopt ethical principles and maintain proper etiquette in dealings with patients, relatives and other health personnel and to respect the rights of the patient including the right to information and second opinion.
3. Develop communication skills to word reports and professional opinion as well as to interact with patients, relatives, peers and paramedical staff, and for effective teaching.

C. Psychomotor domain

At the end of the course, the student should acquire following clinical & operative skills and be able to:

Operative Skills in Obstetrics and Gynaecology

- Adequate proficiency in common minor and major operations, post-operative management and management of their complications.
- Operative procedures which must be done by P G students during training period: *(in graded manner - assisting, operating with senior person assisting, operating under supervision)*

(Operations MUST BE DONE/OBSERVED during PG training programme and log book maintained)

1. Obstetrics: Venesection, culdocentesis

Conduct normal deliveries

Episiotomy and its repair

- Application of forceps and ventouse (10).

- Carry out caesarian section delivery (10 must be done)
- Manual removal of placenta
- Management of genital tract obstetrical injuries.
- Post partum sterilization/Minilap tubal ligation (20 must be done)
- Medical termination of pregnancy - various methods (20 must be done)

2. Gynaecology: Endometrial / cervical biopsy.

Dilatation and curettage

Coldocentesis, Colpotomy

- Opening and closing of abdomen (10 must be done)
- Operations for pelvic organ prolapse
- Ovarian cyst operation
- Operation for ectopic pregnancy
- Vaginal and abdominal hysterectomy

Operations must be OBSERVED and/or ASSISTED when possible:

- Internal podalic version
- Caesarea Hysterectomy
- Internal iliac artery ligation
- Destructive obstetrical operations
- Tubal microsurgery
- Radical operations for gynaec malignancies
- Repair of genital fistulae
- Operations for incontinence
- Myomectomy, Laparoscopic and hysteroscopic surgery

Diagnostic Procedures

- Interpretation of x-rays - Twins, common fetal malformations / mal-presentations, abnormal pelvis (pelvimetry), Hysterosalpingography
- Sonographic pictures at various stages of pregnancy - normal and abnormal pregnancies, Fetal biophysical profile, common gynaecological pathologies.
- Amniocentesis
- Fetal surveillance methods - Electronic fetal monitoring and its interpretation
- Post-coital test
- Vaginal Pap Smear
- Colposcopy
- Endoscopy - Laparo and Hystero-scopy.

Health of Adolescent Girls and Post-Menopausal Women

- Provide advice on importance of good health of adolescent and postmenopausal

women.

- Identification and management of health problems of post-menopausal women.
- Planning and intervention program of social, educational and health needs of adolescent girls and menopausal women.
- Provide education regarding rights and confidentiality of women's health, specifically related to reproductive function, sexuality, contraception and safe abortion.
- Provide advice on geriatric problems.

Reproductive Tract and 'HIV' Infection

- Provide advice on management of RTI and HIV infections in Indian women of reproductive age group.
- Provide advice on management of HIV infections in pregnancy, relationship of RTI and HIV with gynaecological disorders.
- Planning and implementation of preventive strategies.

Medico-legal Aspects

- Correct application of various Acts and Laws while practicing obstetrics and gynaecology, particularly MTP Act and sterilization, Preconception and P.N.D.T. Act.
- Implement proper recording of facts about history, examination findings, investigation reports and treatment administered in all patients.
- Implement the steps recommended for examination and management of rape cases.
- Follow proper procedures in the event of death of a patient.

Environment and Health

- Follow proper procedures in safe disposal of human body fluids and other materials.
- Follow proper procedures and universal precautions in examination and surgical procedures for the prevention of HIV and other diseases.

1. Rules and regulations pertaining to PG Course as per the Council/Governing body:

POSTGRADUATE TRAINING PROGRAMME :

Lectures, seminars, symposia, Inter- and intra- departmental meetings (clinic pathological,

Radio-diagnosis, Radiotherapy, Anaesthesia, Pediatrics/Neonatology), maternal morbidity/mortality meetings and journal club. **Records of these are to be maintained by the department.**

Teaching and learning activities

A candidate pursuing the course should work in the institution as a full time student. No candidate is permitted to run a clinic/laboratory/nursing home while studying postgraduate course. Each year should be taken as a unit for the purpose of calculating attendance.

Every student shall attend teaching and learning activities during each year as prescribed by the department and not absent himself/herself from work without valid reasons.

A list of teaching and learning activities designed to facilitate students of our department to acquire essential knowledge and skills are as follows:

1. Lectures: Lectures are to be kept to a minimum. Final year and Second year Postgraduate students are scheduled to take undergraduate bedside clinics once in a week.
2. Journal club once in 1 month
3. Subject Seminar once in a week
4. Case presentations- twice a week
5. Debate: once in a month
6. OPD work – on scheduled OPD days
7. Ward rounds :
 - a. Service rounds :Every day for the care of the patients. Newly admitted patient should be worked up by the PGs and presented to the seniors the following day.
 - b. Teaching rounds : Each unit will conduct grand rounds for teaching purpose
8. Clinico pathological discussion : interesting cases and the slides are discussed regularly with the department of pathology.
9. Inter departmental meetings to be held with department of Radiology & Paediatrics to discuss interesting cases.
10. CME – at least 2 state level CME programmes should be attended by each students in 3 years.
11. Conferences : PG students should present 1 poster and 1 paper at conferences with due support from the teaching staffs.
12. Should have atleast 1 publication at the end of 3 years.

The unit head will scrutinize for the PG work at the end and will be scrutinized by the HOD at the end of each unit posting.

7.7 External postings

COURSE CONTENT

THEORY:

BASIC SCIENCES

- Gametogenesis
- Normal and abnormal development, structure and function (female and male) urogenital system and female breast.
- Applied Anatomy of genito-urinary system, abdomen, pelvis, pelvic floor, anterior abdominal wall, upper thigh (inguinal ligament, inguinal canal, vulva, rectum and anal canal).
- Blood supply, innervations and Lymphatic drainage of the pelvis and reproductive organs.
- Physiology of spermatogenesis.
- Endocrinology related to male and female reproduction (Neurotransmitters).
- Ovulation, fertilization, implantation, development of foetus and placenta.
- Anatomy and physiology of urinary and lower GI (Rectum / anal canal) tract.
- Development, structure and function of placenta, umbilical cord and amniotic fluid.
- Anatomical and physiological changes in female genital tract during pregnancy.
- Anatomy of fetus, fetal growth and development, fetal physiology and fetal circulation.
- Physiological and neuro-endocrinal changes during puberty, adolescence, menstruation, ovulation, fertilization, climacteric and menopause.
- Biochemical and endocrine changes during pregnancy, including systemic changes in cardiovascular, hematological, renal hepatic, renal, hepatic and other systems.
- Biophysical and biochemical changes in uterus and cervix during pregnancy and labor.
- Pharmacology of identified drugs used during pregnancy, labour, post-partum period in reference to their absorption, distribution, excretion, (hepatic) metabolism, transfer of the drugs across the placenta, effect of the drugs (used) on labor, on fetus, their excretion through breast milk.
- Mechanism of action, excretion, metabolism of identified drugs used in the management of Gynaecological disorder.
- Role of hormones in Obstetrics and Gynaecology.

Markers in Obstetrics & Gynaecology - Non-neoplastic and neoplastic diseases

- Pathophysiology of ovaries, fallopian tubes, uterus, cervix, vagina and external genitalia in healthy and diseased conditions.
- Normal and abnormal pathology of placenta, umbilical cord, amniotic fluid and fetus.
- Normal and abnormal microbiology of genital tract. Bacterial, viral and parasitical infections responsible for maternal, fetal and gynaecological disorders.
- Humoral and cellular immunology in Obstetrics & Gynaecology.

- Gametogenesis, fertilization, implantation and early development of embryo.
- Normal Pregnancy, physiological changes during pregnancy, labor and puerperium.
- Immunology of pregnancy.
- Lactation.

MEDICAL GENETICS

- Basic medical genetics including cytogenetics.
- Pattern of inheritance
- Chromosomal abnormalities - types, incidence, diagnosis, management and recurrence risk.
- General principles of Teratology.
- Screening, counseling and prevention of developmental abnormalities.
- Birth defects - genetics, teratology and counseling.

CLINICAL OBSTETRICS :

Antenatal Care:

Includes diagnosis, of pregnancy; Identification of high risk group of mothers and foetus with different modality of investigation. Clinical monitoring of maternal/foetal welfare and selection of place of delivery.

- Prenatal care of normal pregnancy including examination, nutrition, immunization and follow up.
- Identification and management of complications and complicated of pregnancy – abortion, ectopic pregnancy, vesicular mole, Gestational trophoblastic Diseases, hyperemesis gravidarum, multiple pregnancy, antipartum hemorrhage, pregnancy induced hypertension, preeclampsia, eclampsia, Other associated hypertensive disorders, Anemia, Rh incompatibility, diabetes, heart disease, renal and hepatic diseases, preterm - post term pregnancies, intrauterine fetal growth retardation,
- Neurological, hematological, dermatological diseases, immunological disorders and other medical and surgical disorders/problems associated with pregnancy, Multiple pregnancies, Hydramnios, Oligoamnios.
- Diagnosis of contracted pelvis (CPD) and its management.
- High-risk pregnancy
 - Pregnancy associated with complications, medical and surgical problems.
 - Prolonged gestation.
 - Preterm labor, premature rupture of membranes.
 - Blood group incompatibilities.
 - Recurrent pregnancy wastage.
- Evaluation of fetal and maternal health in complicated pregnancy by making use of diagnostic modalities including modern ones (USG, Doppler, Electronic monitors) and plan for safe delivery for mother and fetus. Identifying fetus at risk and its management. Prenatal diagnostic modalities including modern ones.
- Infections in pregnancy (bacterial, viral, fungal, protozoan)
 - Malaria, Toxoplasmosis.
 - Viral – Rubella, CMV, Herpes, HIV, Hepatic viral infections (B, C etc)
 - Sexually Transmitted Infections (STDs)
 - Mother to fetal transmission of infections.

- Identification and management of fetal malpositions and malpresentations.
- Management of pregnancies complicated by medical, surgical (with other specialties as required) and gynecological diseases.
 - Anemia, hematological disorders
 - Respiratory, Heart, Renal, Liver, skin diseases.
 - Gastrointestinal, Hypertensive, Autoimmune, Endocrine disorders.
 - Associated Surgical Problems.
 - Acute Abdomen (surgical emergencies - appendicitis and GI emergencies).
 - Other associated surgical problems.
 - Gynaecological disorders associate with pregnancy - congenital genital tract developmental anomalies, Gynaec pathologies - fibroid uterus, Ca Cx, genital prolapse etc.
 - Prenatal diagnosis (of fetal problems and abnormalities), treatment – Fetal therapy
 - M.T.P, PC & P.N.D.T Act etc
 - National health MCH programs, social obstetrics and vital statistics
 - Recent advances in Obstetrics.

Intra-partum care:

- Normal labor - mechanism and management.
- Partographic monitoring of labor progress, recognition of abnormal labor and its appropriate management.
- Identification and conduct of abnormal labor and complicated delivery - breech, forceps delivery, caesarean section, destructive operations.
- Induction and augmentation of labor.
- Management of abnormal labor - Abnormal pelvis, soft tissue abnormalities of birth canal, mal-presentation, mal-positions of fetus, abnormal uterine action, obstructed labor and other distocias.
- Analgesia and anaesthesia in labor.
- Maternal and fetal monitoring in normal and abnormal labor (including electronic fetal monitoring).
- Identification and management of intrapartum complications, Cord presentation, complication of 3rd stage of labor - retained placenta, inversion of uterus, rupture of uterus, post partum hemorrhage.

Post Partum

- Complication of 3rd stage of labor retained placenta, inversion of uterus, post partum hemorrhage, rupture of uterus, Management of primary and secondary post-partum hemorrhage, retained placenta, uterine inversion. Post-partum collapse, amniotic fluid embolism
- Identification and management of genital tract trauma - perineal tear, cervical/vaginal tear, episiotomy complications, rupture uterus.
- Management of critically ill woman.
- Post partum shock, sepsis and psychosis.
- Postpartum contraception.

Breast feeding practice; counseling and importance of breast-feeding. Problems in breast-feeding and their management, Baby friendly practices.

- Problems of newborn - at birth (resuscitation), management of early neonatal problems.
- Normal and abnormal purpurae - sepsis, thrombophlebitis, mastitis, psychosis. Hematological problems in Obstetrics including coagulation disorders. Use of blood and blood components/products.

Operative Obstetrics:

- Decision-making, technique and management of complications.
- Vaginal instrumental delivery, Caesarian section, Obst. Hysterectomy, destructive operations, manipulations (External/internal podalic version, manual removal of placenta etc)
- Medical Termination of Pregnancy - safe abortion - selection of cases, technique and management of complication. MTP law.

New Born

1. Care of new born: Normal and high risk new born (including NICU care).
2. Asphyxia and neonatal resuscitation.
3. Neonatal sepsis - prevention, detection and management.
4. Neonatal hyper - bilirubinemia - investigation and management.
5. Birth trauma - Detection and management.
6. Detection and management of fetal/neonatal malformation.
7. Management of common neonatal problems.

Clinical gynaecology and fertility regulation

History taking with special reference to gynaecological history, abdominal and pelvic examination, relevant investigation to arrive at most probable diagnosis.

Topics induced: Infection, New growths (both benign and malignant) and other pathological disorders of vulva, vagina, urinary bladder, cervix uterus, fallopian tubes. Ovaries and Pelvic cellular tissues including STD and HIV.

Epidemiology and etiopathogenesis of gynaecological disorders.

- Diagnostic modalities and management of common benign and malignant gynaecological diseases (diseases of genital tract):
 - Fibroid uterus
 - Endometriosis and adenomyosis
 - Endometrial hyperplasia
 - Genital prolapse (uterine and vaginal)
 - Cervical erosion, cervicitis, cervical polyps, cervical neoplasia.
 - Vaginal cysts, vaginal infections, vaginal neoplasia (VIN)
 - Benign Ovarian pathologies
 - Malignant genital neoplasia - of ovary, Fallopian tubes, uterus, cervix, vagina, vulva and Gestational Trophoblastic diseases, Cancer Breast.

- Diagnosis and surgical management of clinical conditions related to congenital malformations of genital tract. Reconstructive surgery in gynaecology.
- Intersex, ambiguous sex and chromosomal abnormalities.
- Reproductive endocrinology: Evaluation of Primary/secondary Amenorrhoea, management of Hyperprolactinemia, Hirsutism, Chronic an-ovulation, PCOD, thyroid and other endocrine dysfunctions.
- Infertility - Evaluation and management
 - Methods of Ovulation Induction
 - Tubal (Micro) surgery
 - Management of immunological factors of Infertility
 - Male infertility
 - Obesity and other Infertility problems.
 - **(Introductory knowledge of) Advanced Assisted Reproductive Techniques (ART)**
- Reproductive tract Infections: prevention, diagnosis and treatment.
 - STD
 - HIV
 - Other Infections
 - Genital Tuberculosis.
- Principles of radiotherapy and chemotherapy in gynaecological malignancies. Choice, schedule of administration and complications of such therapies.
- Rational approach in diagnosis and management of endocrinal abnormalities such as: menstrual abnormalities, amenorrhoea (primary/secondary), dysfunctional uterine bleeding, polycystic ovarian disease, hyperprolactinemia (galactorrhea), hyperandrogenism, thyroid - pituitary - adrenal disorders, menopause and its treatment (HRT).
- Urological problems in Gynaecology - Diagnosis and management.
 - Urinary tract infection
 - Urogenital Fistulae
 - Incontinence
 - Other urological problems
- Orthopedic problems in Gynaecology.
- Menopause: management (HRT) and prevention of its complications.
- Endoscopy (Laparoscopy - Hysteroscopy)
 - Diagnostic and simple therapeutic procedures (PG students must be trained to do these procedures)
 - Recent advances in gynaecology - Diagnostic and therapeutic
 - Pediatric, Adolescent and Geriatric Gynaecology
 - **Introduction to Advance Operative procedures.**

Operative Gynaecology

- Abdominal and Vaginal Hysterectomy
- Surgical Procedures for genital prolapse, fibromyoma, endometriosis,
- ovarian, adenexal, uterine, cervical, vaginal and vulval pathologies.
- Surgical treatment for urinary and other fistulae, Urinary incontinence
- Operative Endoscopy

Family Welfare and Demography

- Definition of demography and its importance in Obstetrics and Gynaecology.
- Statistics regarding maternal mortality, perinatal mortality/morbidity, birth rate, fertility rate.
- Organizational and operational aspects of National health policies and programs, in relation to population and family welfare including RCH.
- Implementing safe motherhood initiative
- Community maternal health care
- MCH problems
- Risk approach of pregnant women, Anaemia, STD syphilis, tetanus, AIDS
- Domiciliary care
- Postnatal complications
- Low birth weight (L.B.W.)
- Socio economic status and birth weight correction
- Infant feeding
- Road to health chart and school health programme
- Pre pregnancy and post pregnancy counselling
- Various temporary and permanent methods of male and female contraceptive methods.
- Knowledge of in contraceptive techniques (including recent developments).
 - Temporary methods
 - Permanent Methods.
 - Recent advances in contraceptive technology
- Provide adequate services to service seekers of contraception including follow up.
- Medical Termination of Pregnancy: Act, its implementation, providing safe and adequate services.
- Demography and population dynamics.
- Contraception (fertility control)

Reconstructive surgeries like

- Tuboplasty
- Vaso Vasotomy

Male and Female Infertility

- History taking, examination and investigation.
- Causes and management of male infertility.
- Indications, procedures of Assisted Reproductive Techniques in relation to male infertility problems.

Adolescent Gynaecology

- Paediatric gynaecology
- Normal and abnormal puberty
- Adolescent gynaecology problems

Geriatric problems

ONLINE COURSES TO BE ADOPTED :

- **Bio-medical research**

MONITORING LEARNING PROGRESS

i) Personal attitudes : The essential items are :

- Caring attitude
- Initiative
- Organizational ability
- Potential to cope with stressful situations and undertake responsibility
- Trust worthiness and reliability
- To understand and communicate intelligibly with patients and others.
- To behave in a manner which established professional relationship with patients and colleagues
- Ability to work in team
- A critical enquiring approach to the acquisition of knowledge
- The methods used mainly consist of observation. It is appreciated that these items require a degree of subjective assessment by the guide, supervisors and peers.
- Knowledge and correct application of various Acts and Laws while practicing
- Obstetrics and Gynaecology, particularly MTP Act and sterilization, Preconception and P.N.D.T. Act.
- Knowledge of importance of proper recording of facts about history, examination findings, investigation reports and treatment administered in all patients.
- Knowledge of steps recommended for examination and management of rape cases.
- Knowledge of steps taken in the event of death of a patient.

ii) Acquisition of knowledge :

The methods used comprise of 'Log Book' which records participation in various teaching/learning activities by the students. The number of activities attended and the number in which presentations are made are to be recorded. The log book should periodically be validated by the supervisors.

Case discussions : an interesting case in the wards to be selected and presented in the class. The ability to take detailed history, arrive at probable diagnosis and different modes of management to be discussed in detail.

Journal review meeting (Journal club): The ability to do literature search in department study, presentation skills, and use of audio – visual aids are to be assessed. The assessment is made by faculty members and peers attending the meeting using a checklist.

Seminars/Symposia: The topics should be assigned to the student well in advance to facilitate in depth study. The ability to do literature search, in depth study, presentation skills and use of audio-visual aids are to be assessed using a checklist

Clinico – pathological conferences : This should be a multidisciplinary case study of an interesting case to train the candidate to solve diagnostic and therapeutic problems by using an analytical approach. The presenters are to be assessed using a check-list similar to that used for seminar.

Medical Audit : Periodic morbidity and mortality meeting be held. Attendance and participation in these must be insisted upon. This may not be included in assessment.

iii) Clinical skills :

Day to day work : Skills in outpatient and ward work should be assessed periodically. The assessment should include the candidates' sincerity and punctuality, analytical ability and communication skills.

Clinical Meeting : Candidates should periodically present cases to his peers and faculty members. This should be assessed using a check list.

Clinical & procedural skills : the candidate should be given graded responsibility to enable learning by apprenticeship. The performance is assessed by the guide by direct observation. Particulars are recorded by the student in the log book.

Obstetrics I

- i. Diagnosis of early pregnancy and its complication and management
- ii. AIM of ANC and management of high risk pregnancies.
- iii. To work in labour wards and to manage normal and complicated deliveries.
- iv. Neonatal care and resuscitation in labour wards
- v. Follow – up of normal and abnormal deliveries during postnatal period
- vi. Assisting caesarean section initially, by the end of the course, they shall be able to do caesarean sections independently.
- vii. ICU management.
- viii. Family welfare programmes and reconstructive surgeries of the fallopian tubes
- ix. Rural obstetrics care referral services

Gynaecology

- i. To work in OPD and examine Gynaecology cases routinely,
- ii. Minor operation: To assist in the beginning and carry out work independently by the end of I year.
- iii. Major Operations : To assist as second assistant for the I six months and as first assistant for the next 6 months and do major operations like vaginal hysterectomy, with PFR and abdominal hysterectomy, Ovariectomy with the assistance of senior doctors. By the end the course the candidate shall be familiar with the techniques of above mentioned operations and to do independently.
- iv. To do investigations like HSG and USG under guidance initially and independently by the end of course.
- v. To assist medico legal cases.

- vi. Writing case records
- vii. Candidate should write separate PG case sheets, They should keep diary and log book and get verified by the Unit Chief by the end of each month.

Essential Research Skills

- i. Basic statistical knowledge
 - a. Ability to undertake clinical & basic research
 - b. Descriptive and inferential statistics
 - c. Ability to publish results of one's work.
- ii. This could be achieved during the course by attending workshops on research methodology, basic statistics classes and regularly having journal clubs etc., where selected articles are taken and evaluated for content quality and presentation.

Communication abilities

Ability to interact with and work as a team with other colleagues, with patients and with teachers.

Record keeping

The ability to maintain records as scientifically as possible. Knowledge of computer is helpful.

Surgical Skills

1. Conducting minimum 50 cases of normal delivery including forceps and ventouse application.
Episiotomy repair, colpocentesis 3rd degree perineal tear suturing
2. Tubectomy both mini lap and laparoscopic sterilization.
3. Destructive operations
4. Minor O.T. procedures :
 - i. MTP, D&C, suction evacuation, M.R. Mid-trimester procedure extraamniotic instillation with of 2% ethacardine Inj. Local application cerviprime gel insertion of intrauterine devisors.
 - ii. Cervical and Endometrial biopsy electric cauterization and cold cable tube testing procedure and hysterosalpingogram,
 - iii. Cervical biopsy, pap-smear,
 - iv. Diagnostic laparoscopy and hysteroscopy
 - v. Colposcopy
5. Major OT procedures
 - i. Caesarean section minimum 10 to be done and 20 operation to be assisted
 - ii. Vaginal hysterectomy minimum 20 to be assisted and 3 to be performed
 - iii. Abdominal hysterectomy minimum 20 to be assisted and 3 to be performed
 - iv. Ovariectomy
 - v. Cervical encerclage
 - vi. Caesarean hysterectomy
 - vii. Salpingectomy for ectopic pregnancy
 - viii. Laparotomy
 - ix. Internal iliac ligation
 - x. external podalic version and MRP
 - xi. Operation for inversion of uterus

6. Special Operations (Only to assist)
 - i) Tuboplasty
 - ii) Myomectomy
 - iii) Ovarian de- bulking operation
 - iv) Ventrofixation (Gilliam's Operation)
 - v) Sling operations for prolapse
 - vi) Wertheim's hysterectomy
 - vii) Simple and radical vulvectomy
 - viii) Operation for stress incontinence

- iv) Teaching skills : Candidates should be encouraged to teach undergraduate medical students and paramedical students, if any this performance should be based on assessment by the faculty members of the department and from feed back from the undergraduate

- v) Dissertation in the Department : Periodic presentations are to be made in the department. Initially the topic selected is to be presented before submission to the University for registration, again before finalization for critical evaluation and another before final submission of the completed work.

- vi) Periodic tests: The departments conduct three tests, two of them will be annual tests, one at the end of first year and the other in the second year. The third test may be practical's /clinical and viva – voce.

- vii) Work diary /Log Book : Every candidate shall maintain a work diary and record his/her participation in the training programmes conducted by the department such as journal reviews, seminars, etc. Special attention may be made of the presentations by the candidate as well as details of clinical or laboratory procedures, if any conducted by the candidate.

- viii) Records : Records, log books and marks obtained in tests will be maintained by head of the department and will be made available to the University.

STRUCTURED TRAINING SCHEDULE:

I YEAR

- 1) Theoretical knowledge, Basic sciences.
- 2) Examination and diagnosis of Obstetrics & Gynaecological cases with relevant investigations case recording.
- 3) Surgical Skills
Assisting Caesarean sections as second assistant initially and later on as first assistant.
Assisting all major gynecological operations like, vaginal & abdominal hysterectomies as a second assistant.

Minor Operations

Assisting minor operations like MTP, Tubectomy, Laparoscopy, Cervical biopsy
D & C in the initial period and later on doing independently under supervision

II YEAR

Theoretical knowledge of allied subjects

Clinical examination and diagnosis : The student is encouraged to take diagnostic, investigational and therapeutic decisions.

Surgical Skills : At the end of the second year the student should be capable of operating without assistance but under supervision, like caesarean section and minor operations like, MTP, cervical biopsy, D&, tubectomies, outlet forceps, emergencies during delivery. The student must know how to manage the complications during and after delivery confidently.

Conferences and workshops: Encouraged to attend one conference of State level and at National level. Presentation of paper in the conference should be done.

The student should be involved actively in presentation of seminars, panel discussion, Journal clubs and case discussions with seniors, and to maintain record in Log book.

III YEAR

Should be thorough with basic, allied and recent advances.

Clinical Diagnosis & examination : should be able to make clinical diagnosis and be familiar with techniques of operations like caesarean sections, abdominal and vaginal hysterectomies, reconstructive surgeries of fallopian tubes and surgeries on ovarian tumours. Techniques of assisted reproductive technologies.

Teaching activities : Final year student should take lead in conducting seminars, panel discussions, Journal Clubs and case discussions with I & II year students. The student should involve himself/herself in teaching undergraduate students specially bedside clinics.

The student should attend National and State level conferences, CME. Programmes and workshops on colposcopy, Hysteroscopy and endoscopic surgeries, including ultrasound guided procedures. The student must also be exposed to the assisted reproductive technologies like IVF – ET ICSI and also to observe radical surgeries in gynaec – Oncology..

Rotation and labour ward postings

- i) The student must work in labour wards at least 9 months during I, II & III year (3 months each year)
- ii) *Allied posts should be done during the course* –
 - Paediatrics : 15 days
 - Radio – diagnosis including Ultrasound and NST : 15 days
 - Oncology and Radiotherapy : 1 month
 - Anaesthesia : 15 days

During the training programme, patient safety is of paramount importance; therefore, skills are to be learnt initially on the models, later to be performed under supervision followed by performing independently; for this purpose, provision of surgical skills laboratories in medical colleges is mandatory.

Internal Assessment should be frequent, cover all domains of learning and used to provide feedback to improve learning; it should also cover professionalism and communication skills. The Internal Assessment should be conducted in theory and clinical examination.

Quarterly assessment during the MS training should be based on following educational activities:

1. Journal based / recent advances learning
2. Patient based /Laboratory or Skill based learning
3. Self directed learning and teaching
4. Departmental and interdepartmental learning activity
5. External and Outreach Activities / CMEs

The student to be assessed periodically as per categories listed in postgraduate student appraisal form (Annexure I).

SUMMATIVE ASSESSMENT, ie., assessment at the end of training

The summative examination would be carried out as per the Rules given in POSTGRADUATE MEDICAL EDUCATION REGULATIONS, 2000.

Postgraduate Examination shall be in three parts:**1. Thesis**

Every post graduate student shall carry out work on an assigned research project under the guidance of a recognised Post Graduate Teacher, the result of which shall be written up and submitted in the form of a Thesis. Work for writing the Thesis is aimed at contributing to the development of a spirit of enquiry, besides exposing the post graduate student to the techniques of research, critical analysis, acquaintance with the latest advances in medical science and the manner of identifying and consulting available literature.

Thesis shall be submitted at least six months before the Theory and Clinical / Practical examination. The thesis shall be examined by a minimum of three examiners; one internal and two external examiners, who shall not be the examiners for Theory and Clinical examination. A post graduate student shall be allowed to appear for the Theory and Practical/Clinical examination only after the acceptance of the Thesis by the examiners.

2. Theory Examination: 400 Marks

The examinations shall be organised on the basis of ‘Grading’ or ‘Marking system’ to evaluate and to certify post graduate student's level of knowledge, skill and competence at the end of the training. Obtaining a minimum of 50% marks in ‘Theory’ as well as ‘Practical’ separately shall be mandatory for passing examination as a whole. The examination for M.D./ MS shall be held at the end of 3rd academic year. An academic term shall mean six month's training period.

There should be four theory papers, as given below:

Paper I: Applied Basic sciences.

Paper II: Obstetrics including social obstetrics and Diseases of New Born

Paper III: Gynaecology including fertility regulation

Paper IV: Recent Advances in Obstetrics & Gynaecology

3. Clinical/Practical & oral/viva voce Examination: 200 Marks shall be as given below:

- a) **Obstetrics:**
Clinical
 Long Case: 1 case
 2 cases with different problems
 Short Case/ Spot Case: 1 case

- b) **Gynaecology:**
Clinical
 Long Case: 1 case
 2 cases with different problems
 Short Case/ Spot Case: 1 case

Pedagogy (20 Marks)

Viva voce: (80 marks)

- Instruments
- Pathology specimens
- Drugs and X-rays, Sonography etc.
- Dummy Pelvis

Maximum marks for MD	Theory	Practical	Viva	Grand Total
Obstetrics & Gynaecology	400	200	100	700

**Postgraduate Students Appraisal Form
Pre / Para /Clinical Disciplines**

Name of the Department/Unit :

Name of the PG Student :

Period of Training : FROM.....TO.....

Sr. No.	PARTICULARS	Not Satisfactory	Satisfactory	More Than Satisfactory	Remarks
		1 2 3	4 5 6	7 8 9	
1.	Journal based / recent advances learning				
2.	Patient based /Laboratory or Skill based learning				
3.	Self directed learning and teaching				
4.	Departmental and interdepartmental learning activity				
5.	External and Outreach Activities / CMEs				
6.	Thesis / Research work				
7.	Log Book Maintenance				

Publications

Yes/ No

Remarks* _____

***REMARKS: Any significant positive or negative attributes of a postgraduate student to be mentioned. For score less than 4 in any category, remediation must be suggested. Individual feedback to postgraduate student is strongly recommended.**

SIGNATURE OF ASSESSEE

SIGNATURE OF CONSULTANT

SIGNATURE OF HOD

Recommended Reading:

Books (latest edition)

Obstetrics

1. William Textbook of Obstetrics
2. High risk Obstetrics - James
3. High risk pregnancy - Ian Donal
4. Text book of Operative Obstetrics - Munro Kerr.
5. Medical disorder in pregnancy - De Sweit
6. High risk pregnancy - Arias
7. A text book of Obstetrics - Thrbull
8. Text book of Obstetrics - Holland & Brews.
9. Manual of Obstetrics - Daftary & Chakravarty

Gynaecology

1. Text book of Gynaecology - Novak
2. Text book of Operative Gynaecology - Te-lindes
3. Text book of operative gynaecology - Shaws
4. Text book of Gynaecology and Reproductive Endocrinology - Speroft
5. Text book of Obstetrics & Gynaecology - Dewhurst
6. Manual of Gynaecological Oncology - Disai
7. Text book of Gynaecology – Jaeffcot

Journals

03-05 international Journals and 02 national (all indexed) journals