# OBSTETRICS & GYNAECOLOGY — M D

## PROGRAM GOALS

The residency program in Obstetrics and Gynaecology constitutes a structured educational experience, planned in continuity with undergraduate and continuing medical education, in the health care area encompassed by this speciality. While the programme contains a hospital patient care service component, it is designed primarily to provide education as the first priority.

The main goal of the educational curriculum is to provide an opportunity for resident physicians to achieve the knowledge, skills and attitudes essential to the practice of Obstetrics and Gynaecology and provide opportunity for increasing responsibility, appropriate supervision, formal instruction, critical evaluation and counseling for the resident.

## SPECIFIC AIMS AND OBJECTIVES & SYLLABUS OF THE JUNIOR RESIDENT TRAINING PROGRAM IN OBST. & GYNAE

At the end of 3 years of post graduate training, a resident must acquire knowledge, skills and competencies as a result of training under the resident education programme syllabus which includes the following :

### *I. Basic Sciences*

(a) Normal & abnormal development, structure and function of (female & male) urogenital system and female breast.

(b) Applied anatomy of genito-urinary system, abdomen, pelvis, pelvic floor, anterior abdominal wall, upper thigh (inguinal ligament, inguinal canal, vulva, rectum and anal canal).

(c) Physiology of Spermatogenesis.

(d) Endocrinology related to male and female reproduction.

(e) Anatomy & physiology of urinary & lower GI (Rectum / anal canal), tract.

(f) Development, structure & function of placenta, umbilical cord & amniotic fluid.

(g) Anatomical & physiological changes in female genital tract during pregnancy.

(h) Anatomy of fetus, fetal growth & development, fetal physiology & fetal circulation.

(i) Physiological & neuro-endocrinal changes during puberty, adolescence, menstruation, ovulation, fertilization, climacteric & menopause.

(j) Biochemical and endocrine changes during pregnancy, including systemic changes in cardiovascular, hematological, renal, hepatic and other systems.

(k) Biophysical and biochemical changes in uterus and cervix during pregnancy & labour.

(l) 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 labour, on fetus, their excretion through breast milk.

(m) Mechanism of action, excretion, metabolism of identified drugs used in Obstetrics & Gynaecology.

(n) Role of hormones in Obstetrics & Gynaecology.

(o) Markers in Obstetric & Gynaecology – Non neoplastic and Neoplastic Diseases

(p) Pathophysiology of ovaries, fallopian tubes, uterus, cervix, vagina and external genetilia in healthy and diseased conditions.

(q) Normal and abnormal pathology of placenta, umbilical cord, amniotic fluid and fetus.

(r) Normal and abnormal microbiology of genital tract - bacterial, viral & parasitical infections responsible for maternal, fetal and gynaecological disorders

(s) Humoral and cellular immunology in Obstetrics & Gynaecology

(t) Gametogenesis, fertilization, implantation & early development of embryo

(u) Normal pregnancy, physiological changes during pregnancy, labour & puerperium

(v) Immunology of pregnancy

(w) Lactation

## *II. Obstetrics*

(a) The full range of obstetrics, including high-risk obstetrics and medical and surgical complications of pregnancy

(b) Genetics, including the performance and assistance of prenatal diagnostic and therapeutic procedures and patient counseling

(c) Learning and performing operative vaginal deliveries, including obstetric forceps or vacuum extractor

(d) Performing vaginal breech deliveries

(e) Performing vaginal births after previous cesarean delivery

(f) Obstetrical anethesia : residents must learn the principles of general and conduction anesthesia, together with the management and the complications of these techniques

(g) Experience in the management of critically ill patients

(h) Immediate care of the newborn: every resident must have experience in resuscitation of the human newborn, including tracheal intubation; the principles of general neonatal complications must be learned as well

(i) The full range of commonly employed obstetrical diagnostic procedures, including imaging techniques especially ultrasonography.

## *III. Gynecology*

(a) The full range of the content of medical and surgical gynecology

(b) Diagnosis and medical and surgical management of urinary incontinence

(c) Oncology, including radiation and chemotherapy

(d) Diagnosis and nonsurgical management of breast disease, including fine needle aspirations

(e) Reproductive endocrinology and infertility

(f) Psychosomatic and psychosexual counselling

(g) The full range of commonly employed gynecologic diagnostic and surgical procedures, including imaging techniques

(h) Experience in the management of critically ill patients

### *IV. Contraception, Neonatology and Recent Advances*

(a) Contraception (Male & Female)

(b) Medical termination of pregnancy – safe abortion – selection of cases, technique & management of complication of medical and surgical procedures, MTP law

(c) National health programmes

(d) Social obstetrics and vital statistics

(e) Care of new born : Normal and high risk new born (including NICU care)

(f) Asphyxia and neonatal resuscitation

(g) Neonatal sepsis – prevention, detection & management

(h) Neonatal hyper-bilirubinemia – investigation & management

(i) Birth trauma – Detection & management

(j) Detection and management of fetal/neonatal malformation

(k) Management of common neonatal problems

(l) Emergency medicine

(m) Ethics and medical jurisprudence

## TRAINING PROGRAMME : SCHEDULE

The Junior Residents in Obstetrics & Gynae must undergo the following rotation training during their 3 year's course towards M.D. (OB/GYN)

Obstetric Ward : 1 yr

Gynaecology Ward : 1 yr

Unit Rotation : 3 months each in the other 2 unit (6 mths)

Labour Room : 4 months

Family Planning : 1 months

Radio Therapy : 2 wks

Neonatalogy : 2 wks 1mth

Total = 36months

(Future Plan Rural posting (Ballabhgarh - 1mth)

## OBSTETRIC & GYNAECOLOGY UNITS

The Department of Obst. & Gynae has 3 units (I,II, & III), and Post Partum Programme which is under the programme Director (Head of the Dept.). Each unit has the following :

### *Staff*

1. 3-4 faculty members
2. 2 senior residents
3. 5-6 junior residents

One JR and SR are posted in Post Partum Programme

### *Beds*

To streamline the functioning of the Deptt. and to ensure that all faculty members participate equally in P.G teaching and patient care, the 40 beds in Gynae Ward, 45 beds in Obstetric ward have been divided equally among the 3 units.

In addition the Intensive Care Labour Ward has 13 beds (5 – 1$^{st}$ stage beds, 2 second stage beds, 4 postnatal beds, 2 observation beds). The attached Maternity OT has 2 operation theatres and 4 post operative beds. All these beds and O.T are for common use by all units.

Staff also has to look after patients admitted in Pvt. Ward and emergency beds (C6, D6 wards), EHS patients ($AB_6$)

### *Function of the Obstetrics & Gynaecology units*

Each clinical units in the Deptt. of Obst. & Gynae has the following main functions:

**1. OPD**

*General OPD :* Two per week, forenoon

*Antenatal clinic :* One per week, afternoon

*Oncology Clinic :* One per week at IRCH

*Special Clinics :* Fetal Medicine Clinic, Gynae Endocrine Clinic, Menopause Clinic (are run by some units)

*Family Planning Clinic :* 6 days/week forenoon and afternoon (3d/wk). The Post Partum Program is under the supervision of Head of the Deptt. who is the Program Director. The PPP also runs the following :

1. MTP OT - 6 days/week
2. Ligation (Sterilization) in Maternity OT - 6 days/week
3. Outreach clinics at Urban Health Centres 1 day/week

### *Patient care in Wards*

1. Obstetric
2. Gynaecology
3. Emergency coverage for all patients with Obst/Gynae problems attending AIIMS casualty on days the unit is on call. The same unit also provides emergency consultation for the AIIMS hospital and attached centres who may require O & G Consultation during after office hours.

### *Patient Care in Labour Room*

Labour emergency coverage is done by each unit concerned from 8 AM – 5PM, after which the emergency unit "on call" provides intensive care duty. Labour Room duty on Sundays is on rotation.

### *Operation Theatre*

Each unit routinely has two days Main OT, 2 days Maternity OT and Interventional ultrasound OT, besides emergency OT patient care.

### *Ultrasound sessions*

Each unit has 3 U/S session (2 forenoon & 1 afternoon), besides access to Emergency U/S

## RESPONSIBILITIES & LEARINING ACTIVITIES OF JUNIOR RESIDENTS

The daily routine for a O & G Gynae starts early enough (7.30AM – 8AM) to be able to perform his/her ward responsibilities before Senior Resident rounds/Consultant Rounds/going to Operation Theatre.

### *OPD Services*

Each resident posted in the Obst. & Gynae department would have two OPD days/week.

OPD starts at 9.00 am every day except Sundays and holidays. Residents must be in their OPD cubicle by 9.00am sharp. It is advisable not to change the cubicle repeatedly as this practice makes it difficult for patients attending for follow up.

The following guidelines may be helpful for optimal and efficient functioning in the medical OPD

- Residents should see patients one-by-one on first come first service basis to avoid confusion
- They should evaluate each patient and write the observations on the OPD card with date and signature
- OPD card is a legal document, hence one should be careful about what one writes on the card
- Investigations should be ordered as and when necessary using prescribed forms. All investigation forms should be carefully and completely filled. Short history, findings and clinical assessment should be clearly outlined on forms meant for radiology, pathology and other investigations
- Resident should consult the senior resident/consultant in case of any difficulty regarding diagnosis and the management of each case
- Patient requiring admission according to JR's assessment should be sent to the senior resident on duty for evaluation
- Patient requiring immediate medical attention should be seen on priority. Consultant/senior resident on duty in OPD should be fully apprised of the case in person. Ideally, the resident should also brief casualty medical officer regarding the case. All haemodynamically unstable patients should preferably be escorted by the resident.
- Only if the patient merits a specialist opinion should she be patient be referred to the specialty OPD with the objective of referral and resident's opinion clearly written on the card.
- Patients with chronic illness may be referred to specialty clinic, if required, for further management and follow up and not for routine diagnostic work up, which should preferably be done in the medical OPD itself.
- Patients should be clearly explained as to the nature of the illness, the treatment advice and the modus operandi for getting the investigation done.

- Routine investigation reports reach the investigation file of each room. Reports of Pap Smear, histopathology, X-ray, scans, and pathology investigations reach the sister-in-charge usually by 4-6 days time.
- Resident should specify the date and day when patient has to come for follow up.
- Medical representative should be entertained only after completing OPD work
- Following are available with the sister-in-charge of OPD, BP instruments, weighing machine, special investigation forms, pap smear bottles, punch biopsy forceps, stich removal set, dressing set, Emergency first-aid kit, etc.

### *In-Patient Care (Ward & Labour Room)*

The usual doctor-patient ratio for in-patient services is 1:4-6 which may vary depending on the strength of the residents in the unit. Each Junior resident is responsible and accountable for all the patients admitted under his/her care.

The following are the general guidelines for the functioning of the junior residents in the ward.

- Detailed work up of the case as soon as she is admitted.
- Case sheet maintenance with page numbers, index & in order.
- To organize his/her investigations and collect the reports, if necessary
- Bedside procedures for therapeutic or diagnostic purpose
- Presentation of a precise and comprehensive overview of the patients in clinical rounds to facilitate discussion with SRs and consultant.
- To obtain opinion of specialists of other medical disciplines, if considered necessary by the senior resident and/or consultant
- To evaluate the patient twice daily (and more frequently if necessary) and maintain a progress report in case file along the lines mentioned above.
- Immediate Post operative cases have to seen at least every 2 hourly or more frequently depending on seriousness of case. Notes should be written legibly in case sheet after every examination and signed.
- To establish rapport with the patient for communication regarding the nature of illness and further plan of management
- If surgery is required, the patient and relatives must be explained about the procedure, prognosis and risks in a mature and realistic manner. Informed written consent must be taken and countersigned. This is very important and is a legal document.
- To write instruction about patients treatment pre operative and post operative clearly in the case sheet and in instruction book along with time, date and the bed number with legible signature of the resident.
- To carefully inspect treatment chart of patient daily to check whether physicians instructions are being carried out correctly
- To hand over responsibility of the patients to the resident on duty, verbally and in written before returning for the day
- To plan out the work of the next day in advance to facilitate functioning and avoid delays

**Admission day :** Admission day for a unit starts from 8.00am of the OPD day and ends at 8.00am of the next day. Following guidelines should be observed by the resident during the admission day.

- Routine ward work and discharge of patients should be completed by 9.00am of the admission day
- Resident should inform the doctor on duty about the sick patients, giving detailed verbal and written over, including proposed plan of management. Staff on duty should be fully detailed about drugs and I.V. fluid orders of the sick patient(s).
- After attending to OPD duty, resident should check up with the senior resident on duty about the cases allotted to him/her for the work up.
- Before proceeding for lunch resident, a brief evaluation of the patients should be done. Vital signs should be immediately recorded in the case sheet as soon as a resident examines a patient. Immediate medical care should be provided if patient is sick. Urgent investigations should be sent, if considered necessary.
- Resident should work up the patient in detail and be ready with the preliminary necessary investigations reports for the evening discussion with the consultant on call. It would be in order to discuss the clinical details and plan of management of the case, with the SR before the Consultants round starts.
- After clinical round, resident should plan out the investigation for the next day in advance, fill up the forms of the investigations.
- Responsibility of patients should be handed over to the doctor on call personally.
- In the event of any procedural and logistic problems (e.g. delay in getting a portable X-ray done), SR, consultant or duty officer may be contacted for help.

## *Doctor on duty*

Duty days for each Junior Resident are allotted according to the duty roster made by the SR and/or consultant every month. No change is permissible unless it is by a mutual consent and in such event senior resident/consultant should be duly informed.

- Resident on duty has to report for duty before 8.00am and take detailed over from the previous doctor on duty with especial reference to sick patients
- Doctor should carry the pageboy during duty hours. The custody and maintenance of the working condition of page boy is the responsibility of the junior resident on duty for the day. 'Page Boy' should be tested repeatedly during the day with a test call especially during taking over and leaving the ward for any purpose. Response to a page call should be immediate by telephone or preferably in person. A resident should never ignore a page call.

(Not responding to "page" may invite disciplinary action)

- The resident on duty for the admission day should know in detail about all sick patients in the wards, and relevant problems of all other patients. Admission during night should be worked up and managed according to the suggested guidelines, with intensive monitoring of sick patients.
- In morning, detailed over (written and verbal) should be given to the next resident on duty. This practice *should be irrigidly observed*.
- If a patient is critically sick, discussion about management may be done with SR or consultant at any time, e.g. before or after usually time or evening round.

- The doctor on duty should be available in the ward throughout the duty hours, except during meal times when he/she is covered by a colleague

### *In case of New Admission/Transfer*

This is done usually with the knowledge of senior resident on call. If patient is sick, the doctor on call should accompany the patient from the casualty or another ward. Initial evaluation and stabilization of the patient should be carried out pending detailed evaluation.

### *Care of Sick Patients*

Case of sick patients in the ward takes precedence over all other routine work for the doctor on duty. Patients in critical condition should be meticulously monitored round the clock and records maintained. Treatment alterations should be done by doctor on duty in consultation with the Senior Resident, and Consultant, if necessary.

### *Care of Patients in Labour Room Intensive Care*

Residents will have 1 day duty (8AM –9PM) and 1 night duty (9PM to 8AM) per week and Sundays/ holidays by rotation. Residents have to workup the cases as in In-Patient Care instructions.

Patients in first stage must be monitored very carefully (maternal & fetal). Delivery (Normal, forceps, ventouse) should be conducted. Under supervision of Sr. Res. Decision for operative delivery/Cesarean section must be in consultation with Sr. Res. and Consultant on duty. J.R. have to assist in C.S/perform C.S under supervision and discretion of Sr. Res. & consultant.

**If patient merits ICU** care eg. eclampsia, then it must be discussed with the Senior Resident and Consultant. Consultation should be sent to SR/Consultant Anesthesia or they are contacted on phone for evaluating the patient, and transfer to ICU.

### *Discharge of the patient*

Patient should be informed about her discharge about 24 hours in advance. It should be planned in such a manner that patient vacates bed by 11 AM – 12 Noon in the morning. Preferably, discharge on Sundays and other holidays are to be avoided.

Computerised discharge summary should be precisely, but comprehensively, written. It should be noted that this document is carried by the patient wherever she goes for consultation, or following up. Hence, incomplete or incorrect information should be avoided. Apart from giving salient points in history and examination, resident should record important management decisions, and ensuring hospital course in a proper manner. Investigations should be properly written, giving dates and numbers of various pathological and radiological tests. Complete diagnosis, complications and procedures done during hospital stay should be duly recorded. Operation notes should be precisely written, with diagrams if necessary eg. after diagnostic laparoscopy, hysteroscopy, tuboplasty (before & after surgery etc.) Delivery notes should contain exact time of birth, birth wt., Apgar score and other maternal/fetal/neonatal details. Most important part of the discharge summary is the final advice given to the patient. Complete details of dietary, mobilization plan, and instructions regarding activity or exercise should be written, names of drugs, and dosage should be legibly written, giving the timing and duration of treatment. Contraceptive advise for Obst. cases must be written. Patient should be briefed regarding date, time and location of OPD/Clinic for the follow up visit. Three copies of discharge summary should be made, one for the patient, second to the attached in the case sheet, and third for unit record or for the follow-up OPD.

Discharge summary made by Junior Resident should be carefully checked and corrected by the Senior Resident and/or consultant and counter signed.

### *In Case of Death*

In case it is anticipated that a particular patient may not survive, relatives must be informed about the critical condition of the patient beforehand. In the event of death of a patient, inform the nearest available relative and explain the nature of illness. Follow up death summary should be written in the file. Face sheet notes and must be filled up and the sister-in-charge should be requested to send the body to the Mortuary from where the patient's relatives can collect the body. If it was an MLC case, death certificate has to be prepared in triplicate and body handed over to mortuary and the local police authorities should be informed. No death certificate is given to their relatives of the medico-legal cases from the wards.

### *In case Autopsy is Required*

Autopsy should be attempted for all patients, fetuses/neonates who have died in this hospital especially so if patient died of undiagnosed illness, unexpected deaths and in conditions where the diagnosis may have a bearing in the health of the relative/hospital staff. Post-mortem is routinely done in the event of medico-legal cases.

Resident should explain the procedure to the relatives emphasizing the need for it. They should fill up the consent form for autopsy after doing all the necessary formalities. The Junior Residents of Pathology on duty should be informed by page or written call, after checking their duty roster. Senior Resident and consultant of the unit should be informed about the autopsy. Resident should try to organize and expedite the process to ensure good compliance by the relatives. Autopsy consent form, autopsy request form and case sheet should be sent to the mortuary, with the dead body.

### *Speciality Clinics*

There are 3 officially recognized speciality clinics being run under the aegis of the department of Obstetrics & Gynaecology. These are as follows :

| *Name of the Clinic* | *Time and Day* | *Place* |
|---|---|---|
| Antenatal & High Risk Pregnancy | Mon/Wed/Fri, 2 PM onwards | G.O.P.D. |
| Fetal Medicine Clinic | Wed, 2 P.M. onwards | - do - |
| Oncology Clinic | Mon/Wed, 2 P.M. onwards | IRCH |

The department also runs Gynae Endocrinology Clinic, Menopause Clinic, Recurrent Pregnancy Loss, Pre pregnancy Counselling Clinic. Faculty members with interest/expertise/training in the subspecialty, attend and run these clinics.

**Referral of patients to these clinics :** As these clinics provide long-term follow-up, only those patients should be referred to these clinics who are really committed to avail of this facility. For simple consultation for reaching a diagnosis it is advisable that the residents carry out the preliminary work-up in the out-patients department itself and take the help of the Consultants/Senior Resident to chalk out the management plan.

### *Investigational facilities and their utilization*

AIIMS hospital is one of the most well-equipped hospitals in the country. However, it the responsibility of the ward team to requisition only at he relevant investigations after a careful analysis of the clinical problem. The approach should be positive (to confirm the clinical diagnosis) rather negative (to exclude some remote possibility). The so-called "routine" investigations must be kept to a minimum. The habit of planning investigations in "EMERGENCY" must be strongly discouraged. It hampers with the proper

functioning of the hospital laboratories and affects the reliability of the laboratory results because of load which cannot be handled.

### *Medico-Legal Responsibilities of the Residents and Interns*

As mentioned in the beginning of this document, Residents and Interns are advised to carefully read and learn the medico-legal responsibilities as related to their day-to-day work in the AIIMS hospital from the AIIMS hospital "Residents' Manual". The department of Obstetrics & Gynaecology Residents have to attend to a lot of "rape cases " in Casualty. They must be very sure of the formalities and steps involved in making the correct death certificates, mortuary slips, medico-legal entries, requisition for autopsy etc. Similarly, they must be fully aware of the ethical angle of their responsilities and should carefully learn how to take legally valid consent for the different hospital procedure/therapies etc.

## TEACHING AND ACADEMIC ACTIVITIES IN DEPARTMENT OF OBSTETRICS & GYNAECOLOGY

During Junior Residency, Post Graduate is not only expected to provide proper patient care, she is also supposed to acquire academic knowledge and skills in the field of Obstetrics & Gynaecology.

### *Case Discussions, Seminars, Journal Club Presentations :*

This is held once a week with all the unit consultants and residents at a predetermined convenient time (4.15PM, Monday). The Junior Resident (usually final year) prepares a case and discusses in detail with the consultant. Interview is then taken by the consultants, on the pattern of final PG examination. The candidate is assessed and given marks on the standardized proforma. Seminars/Journal Clubs are held once/wk (Thursday 3.30 PM) and Jr. Res. ($1^{st}$ & $2^{nd}$ year) will have to present seminars on pre determined topics by turn.

By rotation, the JRs are alloted topics covering recent advances in Obstetrics & Gynaeocology. The list is prepared and circulated at the beginning of each session. Faculty members from the department of Obst. & Gynae and the various subspecialities act as Guides for these seminars. The JRs must contact the preceptors at least 4 weeks before the proposed seminar and carefully chalk out the out-line of the presentation. They must search adequately through the literature and work under the close guidance and supervision of their preceptor(s) and rehearse adequately in advance in order to give a satisfactory presentation with in terms of content and delivery.

Before the seminar, the JR is required to submit the properly edited write-up, prepared with the help of the preceptor, to all faculty members. The document must have relevant recent references on the topic discussed.

### *Perinatal Mortality Conference*

This is held in the seminar room once a month with Neonatology Unit where the details of the fetuses/ neonate who died the previous month are discussed. The objective of this activity is to understand the management of critically ill cases, identify administrative and personal lacunae and lapses if any, and provide future guidelines for similar cases.

### *Clinical Combined Round (CCR)*

Every Tuesday at 2.30 P.M. CCR is held in LT I to discuss interesting case/procedure/surgery seen by a department. Two departments (one surgical and one medical) present, for 30 min each an interesting case/procedure with brief review of literature.

### *Clinical Grand Round (CGR)*

This is a centralized teaching activity held at 4.00 P.M. on Tuesday in LT I where the research activity carried out by a department is presented. The total duration is one hour.

### *Clinico-Pathological Conference (CPC)*

In CPC, one senior faculty member from AIIMS, or any other medical college, discusses an ususual clinical case in detail, and gives his clinical diagnosis. Faculty member from department of pathology follows up the discussion with the final diagnosis.

### *Other Research Activities*

A resident is free to involve himself/herself with other ongoing research activities with any consultant of the department.

## TRAINING IN RADIO THERAPY DEPTT

Residents must observe techniques of radiotherapy for Cancer Cervix, Endometrium etc at IRCH.

## ROTATION IN NEONATOLOGY UNIT

Residents much learn care of newborn, resuscitation of asphyxiated babies, management of common neonatal problems.

## POST PARTUM PROGRAMME ROTATION

Residents must give contraceptive advice insert IUCD's observe and perform Medical Termination of Pregnancy (Medical & Surgical) in first and second trimesters of pregnancy, assist and perform mililap and laparoscopic ligations with Senior Residents, manage complications.

## EVALUATION OF RESIDENTS

Evaluation of Residents of their knowledge and acquisition of attitudes, skills and competencies is a continuous process throughout their 3-year period of training. Evaluation of certain attributes such as interpersonal relationships, professional responsibility, sensitivity to patient's need for comfort, ethical behavior etc. is closely observed by the teaching faculty during the day-to-day clinical work of the Resident.

## ASSESSMENT OF THE JUNIOR RESIDENTS IN THE DEPARTMENT OF OBSTETRICS & GYNAECOLOGY

At the end of each clinical posting in each of the Obst. & Gynae units mentioned above, the Residents are assessed by the faculty staff of the concerned unit/department. Assessments are held at regular intervals, during the posting 6 monthly, and at the end of posting of the Junior Resident in the Obst. & Gynae units. A theory exam. is held every 6 months. During Seminars and Case Presentations residents are assessed by faculty and recorded.

### *Final M.D. Examination*

It consist of a written examination, a clinical examination to assess the clinical competencies and skills, and a viva voce examination. The examination is conducted by two internal examiners with the help of two external examiners. Candidates are recommended for the award of M.D. only after they have exhibited acceptable level of competence in all the areas of knowledge, attitudes and skills being evaluated by the examiners and the teaching faculty.

Written theory examination are conducted with the help of traditional essay type question papers and short notes. There are 4 questions papers of 3 hours each. Paper 1 includes questions of "Basic Sciences" as applied to Obstetrics and Gynaecology Paper 2 covers Obstetrics; Paper 3 includes general Gynaecology; and Paper 4 includes Neonatology & Recent Advances and Contraception.

Clinical examination is the most important part of the evaluation and is aimed at assessing the clinical skills of the candidate and diagnostic reasoning. Entirely objective evaluation of these skills is neither feasible nor desirable. However, in order to test the various skills, the examiners may evaluate the candidates on a structured format, namely, history taking, physical examination, diagnostic reasoning, choice of diagnostic investigations, general management, medical and surgical procedures and strategies, and general attitude and demeanor towards the patient and the examiners. Patients material selected for examination one obstetrics and one gynae case is usually sufficiently representative of the type patients for whom an internist may by called upon to give an opinion.

### *Requirement of Thesis*

Currently the Residents at the All India Institute of Medical Sciences are required to submit a thesis based on a research protocol developed by them with the help of one or more members of the faculty of the Department of Obst. & Gynae or allied subspecialities. Introduction to research methodology is considered desirable for the residents so that they can understand the concepts of validity and generalizability of the observed finding. All Residents must keep themselves in touch with current medical literature. Moreover, they should be able to judge whether the observations reported in the literature would be applicable to their setting or not. Junior Residents who join the department are given the name of faculty member by the office of the department who will guide him/her in the research work leading to the thesis. The allotment of the Junior Residents to different faculty members for guiding the thesis work is done by the department on the basis of a well-designed rotation format and the Junior Residents must follow the same.

The thesis written by the Residents are evaluated and graded by two external examiners in terms of research design, methodology employed, analytical methods used, and validity of the conclusions reached. Although these grades are not added to the theory or clinical assessment, acceptance of thesis as being satisfactory is a pre-requisite for a Resident to be able to take the M.D. Examination.

## ANNEXURE

## CASE WORK UP

A relevant case work up and good record keeping is the key to good patient care. Record keeping may be uninteresting and laborious but is the cornerstone in the effective and efficient management of the patient. All the cases admitted under the charge of Junior Residents in-charge need to be worked up in detail including clinical, social, personal, family and occupational aspects of history. Patients should be examined in detail with special reference to the involved system(s). The Resident should make his own diagnosis with differential diagnosis giving full justification for each differential diagnosis. The case is first discussed with the Senior Resident. Formal presentation in the round, Junior Resident should write down Consultant's opinion on the separate page. He should then chalk out a plan for further investigations and management. Senior Resident should make a brief note of relevant features, pen down his opinion and plan for further management.

## CASE SHEET KEEPING

For each admitted patient, a case record file with face sheet is to be meticulously maintained. The following sequence, if properly recorded, may lead to uniform and meaningful medical information.

### *Page 1: Face sheet*

1. The details of the patient's name, age, nationality, religion, date of admission, CR Number, address etc are to be filled in by the staff of Central Admission and Inquiry Counter.
2. On admission, Provisional Diagnosis needs to be entered after the initial work up.
3. If there are any previous admission, the corresponding CR No. (s) and date (s) of admission should be entered in the column provided.
4. At the time of discharge, the final diagnosis, secondary diagnosis and complications need to be entered.
5. Operative procedures, if any, with brief note on anesthesia given, should be recorded.
6. Result – The appropriate column on the face sheet need to be ticked or rounded.
7. All the face sheets at discharge, or at the time of death need to be properly filled in and must be duly signed by the Senior Resident.

### *Page 2 : Problem Oriented Medical Records (POMR)*

Information collected about a patient is structured into four main components.

(i) Subjective – Record salient points of history.

(ii) Objective – Positive and pertinent clinical findings.

(iii) Assessment – This indicates final diagnosis.

(iv) Problem Related Plans :

For each problem, plans are displayed as a reflection of physician's responsibility to each problem identified.

Plans are recorded under three categories –

1. Diagnostic i.e., laboratory tests, radiological studies consultations, continued observations etc.
2. Therapeutic i.e., medications, diet, surgery etc.
3. Patient education (Pted) i.e., instruction of the patient in various aspects of self care, education regarding the goal of therapy, the prognosis that has been given etc.

### *Page 3 : Treatment chart*

The treatment chart should preferably be written in capitals, so that there is less problem in understanding, by other doctors, and paramedical staff. Following should be duly recorded

(i) Date and time of prescription.

(ii) Name, strength, dosing pattern of the drug duration of treatment, and changes in above, if any.

(iii) Instruction regarding fluid, electrolyte and nutrition.

(iv) Nursing care instructions.

(v) Doctor's name with signature and designation.

The treatment chart should be rewritten, if major changes are ordered. Resident should supervise and check effective translation of the order by staff nurses on daily basis.

### *Page 4-5: Investigation chart*

(i) Investigations chart with date, time (if relevant), nature of investigations, result, normal range (if it is not mentioned in the form or is not a routine).

(ii) This chart (if nor already available in a typed format) should be spaced out over 2-3 pages to avoid crowding of various investigations.

(iii) Reports of radiological investigations should be comprehensively written giving data and number of X-rays or scans.

(iv) Similarly, while writing the hispopathology/cytopathology reports, the respective laboratory numbers should be clearly mentioned.

(v) The discussion on these investigations in various conferences should be duly recorded.

**Page 6 :** Consultant's opinion with date and time

**Page 7-10 : History and examination** (or more pages, if required)

**Page 11: Operation Notes.** Gynaecological surgery/obsetric Cesarian Section /delivary notes. Should contain datailed relevent notes on procedure planned, performed, final diagnosis, prognosis, blood loss, sponge count. Surgeons' names must be recorded besides names of Anaesthetist and scrub nurse.

**Page 12 :** (onwards) Progress notes should be entered daily for all patients and round the clock for sick patients with special reference to the following points :

(i) Vital signs.

(ii) New symptoms or signs

(iii) Investigation plan for the day

(iv) Providers done with reference to nature, time, date, technique used and post intervention monitoring.

(v) Any blood product received with mention of blood group, reference number, and adverse reactions, if any.

(vi) Assessment of the clinical problems and proposed plan of action based on clinical status of the patient over last 24 hours.

## RESIDENTS FORMAL ASSESSMENT FORM

1. Credibility & Reliability (3)
2. Punctuality & Regularity (3)
3. Ability to get along with peers (3)
4. Inter-personal relationship (3)
5. Humane & compassionate behaviour with patients & their families. Concern for the welfare of the patients & social obligations to the community (3)

Total = 15 marks.

# OPHTHALMOLOGY — M D

The following are the aims and objectives as provided in the AIIMS act 1966. Dr. Rajendra Prasad Centre for Ophthalmic Sciences is a constituent unite of the AIIMS as far as Post-graduate medical education is concerned.

1.1 To develop patterns of teaching in postgraduate medical education in all its branches so as to demonstrate a high standard of medical education to all medical colleges and other allied institutions in India.

1.2 To provide for advanced postgraduate teaching in sciences of modern medicine and other allied sciences; including physical and biological sciences.

1.3 Conduct experiments in new methods of medical education for postgraduate, In order to arrive at Satisfactory Standards of such education.

1.4 Prescribe course and curricula for Postgraduate students.

1.5 Train teachers for the different medical colleges in India.

Course for M.D. Ophthalmology are whole time residential training course of three years duration. The admission are held in June & December every year. The sessions start from first July and first January every year.

## PRE-REAUISITES

For admission to these course, the candidates must have passed MBBS Examination of recognized university and should be registered as a medical practitioner.

The student should have successfully completed one-year internship programme after the MBBS course of 4-1/2 years duration or 6 months internship programme if the course is of 5 years duration.

## BOARD OBJECTIVE

The Clinical postgraduate training programmes are intended at developing in a student a blend of qualities of a clinical specialist, a teacher and a researcher. They are organsied such that a postgraduate should possess the following qualities knowledge and skills.

### *Basic Sciences*

He should possess basic knowledge of the structure, function and development of the human body as

related to ophthalmology, of the factors which may disturb these mechanisms of such disturbances and the disorders of structure and function which may result.

### *Clinical Knowledge*

He should be able to practice and handle most day to day problems independently in ophthalmology. He should recognize the limitations of his own clinical knowledge and know when to seek further help.

### *Environment And Health*

He should understand the effect of environment on health and be familiar with the epidemiology of at least the more common diseases in the field of ophthalmology. He should be able to integrate the preventive and promotive methods with the curative and rehabilitative measures in the treatment of disease.

### *Community Ophthalmology*

He should practice ophthalmology at the door step of community. He should be familier with common eye problems occuring in rural areas and be able to deal with them effectively. He should also be made aware of mobile ophthalmic Unit and its working & components.

### *Current Developments*

He should be familiar with the current development in Ophthalmic Sciences.

### *Teaching*

He should be able to plan educational programmes in ophthalmology in assoclcation with his senior colleagues and be familiar with the modern methods of teaching and evaluation.

### *Research*

He should be able to identify a problem for research of a clinical or experimental nature involving epidemiological studies or a combination there of, clearly state his objectives, plan a rational approach to its solution and execute it and critically evaluate his date in the light of existing knowledge.

### *Scientific Method*

He should know that conclusions should be reached by logical education and he should be able to assess evidence both as to its reliability and its relevance.

## INTERMEDIATE OBJECTIVES

The following over all objectives are expected to be achieved by the end of 3 years of instructions and residential training programme. The details are listed subject and clinical assignment wise. At the end of this training programme the students should be able to:

### *Basic Medical Sciences*

(a) Attain understanding of the structure and function of the eye and its parts

In health and disease.

(b) Attain understanding and application of knowledge of the structure and function of the parts of Central Nervous System and other parts of the body which influence of Control the structure and function of the eye.

(c) Attain understanding of and develop competence in executing common general laboratory procedures employed in diagnosis and research in ophthalmology.

## Clinical Ophthalmology

Given adequate opportunity to work on the basis of graded responsibilities in out-patients, in patients and operation theatres on a rotational basis in the clinical section of the Centre from the day of entry to the completion of the training programme, the students should be able to:

(a) Acquire scientific and rational aproach to the diagnosis of ophthalmic cases presented.

(b) Acquire understanding of and develop inquisitiveness to investigate, to establish cause and effect of the disease.

(c) To perform all routine and special ophthalmic investigations ( e.g. Slit lamp examination, Genioscopy, Ophthalmo-dynammonetry, peimetry, scotometry, Tonography, ERG, EOG, EMG, etc., Dark adaptometry, Dark room procedures, Funds photography, Fluorescein angiography, Hess & Less screen Synoptophore and other procedures, of these investigation in the light of clinical presentation.

(d) To manage and treat all types of ophthalmic cases.

***Refraction***

(e) Acquire competence in assessment of refractive errors (Static and dynamic ) and prescription of glasses for all types of refraction problem.

(f) Acquire basic knowledge of manufacture and filttings of glass and competence of judging the accuracy and defects of the dispensed glasses.

***Medical & Surgical Management***

(g) To demonstrate the knowledge of the pharmacological (including toxic) aspects of drugs used in ophthalmic practice and drug commonly used in general diseases affecting the eyes.

(h) To exhibit competence in medical management of ophthalmic cases.

(i) To competently handle and execute safely all routine surgical procedures on lens, glaucoma, lid, sac, adnexa, retina and muscle anomalies.

(j) To competently handle all ophthalmic medical and surgical emergencies.

(k) To be familiar with micro-surgery and special surgical techniques.

## Ophthalmic Specialists

Given an opportunity to work on a rotational basis in various especial clinics of Sub-specialties of ophthalmology. The student should be able to:

(a) Examine, diagnose and demonstrate understanding of management of the problems of Neuro-ophthalmology and refer appropriate cases to Neurology and Neuro-Surgery.

(b) To examine, diagnose and demonstrate under standing of management of (medical and surgical) complicated problems in the field of (a) lens, (b) Uvea, (c) Cornea including of transplant and implant (d) Retina including ratinal detachment (e) Squint (f) Ophthalmoplasty and and tumours of Eye (g) Glaucoma (h) Plastic Surgery of Eye and (i) Genetic Problems in Ophtjhalmology.

(c) To demonstrate understanding of the manufacture, and competence in prescription and dispensing of contact lenses and ocular prosthesis.

## Ophthalmic Pathological Science

(a) Given the relevant clinical operative and radiological data the student should be able to identify and describe the major histomorphology alternations in the tissues received in the section of ocular pathology.

(b) Be able to interpret the diangosis in correlation with the clinical data of routine materials received in at least 80 % of the cases.

(c) Be able to demonstrate an understanding of the histogenic and Patho physiologic processes associated with such lesions.

### *Community Ophthalmology*

Given an opportunity to participate in participate in surveys, eye camps and Rehabilitation teams, the students should be able to:

(a) Organize & conduct surgery's in rural, urban and industrial communities and in specialized groups of population.

(b) Organize & conduct comprehensive eye camps covering promotive, Rehabilitative and curative aspects of ophthalmic problems.

(c) Guide rehabilitation workers in the organization and training of the blinds Blinds in art of daily living and din the vocational training of the blind loading to gainful employment.

### *Research*

(a) Recognise a research problem.

(b) State the objective in terms of what is expected to be achieved in the end.

(c) Plan a rational approach with appropriate controls with full awareness of the statistical validity of the size of the material.

(d) Spell out the methodology and carry out most of the technical procedures required for the study.

(e) Accrately and objectively record on systematic lines the result and observation made.

(f) Analyse the data with the aid of an appropriate statistical analysis.

(g) Interpret the observations in the light of existing knowledge and highlight in what ways the study has advanced existing knowledge on the object and what further remains.

(h) Write a thesis in accordance with the prescribed instructions (Apendix III).

(i) Write at least one scientific paper as expected of International Standards from the material of his thesis.

### *Teaching*

(a) To write symphosiums and critically discuss them

(b) To methodically summarise Internationally published articles according to Prescribed instructiions and critically evaluate and discuss each selected article.

(c) To discuss symposia and journals with his collegue and guide his juniors in groups.

(d) To present case at clinical conferences discuss them with his collegues and Guide his juniors in groups in evaluation & discussion of these cases.

### *Courses*

The training programmes in the Centre are divided into theoretical, clinical and practical in all aspects of the delivery of the Ophthalmic medical and health care. They provide training in methodology of research and teaching. The course run for a period of three years on a residency pattern.

At the end of the prescribed period the students may submit a thesis on a research problem that may

have been identified earlier, and at the end of the prescribed period appears for the final examination lasting for 3 days depending upon the numbers of candidates, the actual questioning time per candidate being not lessv than 3 hours.

## THEORETICAL

The theoretical knowledge is imparted to the candidate through distinct courses of lecture demonstration and symposia. The students are exposed to recent advances through discussions in journal clubs Symposia. These are considered necessary in view of the indequate exposure to ophthalmology in the undergraduate curriculum. A record of association's library and any students is free to consut them whenever he desires.

## DIDACTC TEACHING IN CLINICAL APPLIED BASIS AND PARA-CLINICAL SCIENCES

(a) Knowledge in applied, basic and para clinical and clinical science is imparted by the member of the staff of the Centre in respective disciplines or by clinicians themselves by conducting didactic courses-(Lecture & Demonstration)

(b) Symposia

In each section which has two or more specialties the residents of 3rd and 4th semester are exposed to 14 symposia in each specialty over a 1 year period to cover the entire specialty.

(c) Journal Clubs

Journals are reviewed in a particular specialty covering all articles in that subject over a 6 months period and 10 major articles presented and discussed by the resident. About 2 journal reviews per section are done every 3 months.

1) Aim 2) Methods 3) Observations

4) Discussions and 5) Conclusions

## CLINICAL OPHTHALMOLOGY

For the purpose of clinical training the Centre is divided into clinical sections, Proportionate number of residents are attached to each Section. The training is given in wards out-patient department, speciality clinics and operation theatres. Each Resident rotated through all the clinical sections & work in each section for proportionate period of his/her stay in the Centre.

(a) Out-Patients

For the first six months of the training programme Residents are attached to a faculty member to be able to pick up methods of history taking and ocular examination in ophthalmic practice. During this period the resident is also oriented to the common ophthalmic problems that come to the Centre. After 6 months, the clinical resident is allotted a subicle, where he receives new and old cases including refrections and prescribes for them. The residents are attached to a Senior Resident and faculty member whom they can consult in case of difficulty.

(b) Wards

Each residents is allotted 3 to 5 beds in the in-patient sections of the Centre. The beds of each resident are approximately divided into two halves-general ophthalmic cases and specialty cases. The whole concept is to provide the resident increasing opportunity to work increasing responsibility according to seniority. A detailed history and case record is to be maintained by the resident and he is made familiar with coding and punch card system the Centre.

(c) Specialty Clinics

The residents is provided with an opportunity to work in specialty clinics of the section he is working in at the time of his posting. The Centre. The Centre runs thirteen specialtity clinics. The resident is provided with an opportunity to learn by actuality doing all investigative procedures, methods of diagnosis and principles of management of cases in the clinics. These clinics also provide him with an opportunity of learning and sifting proper referrals, fellow up cases over a long period and evaluate results.

(d) Operations

The resident is provided with an opportunity to perform operations both extra-ocular & Intra-ocular with the assistance of the Senior Residents and/or under the direct supervision of a faculty member. He is provided with an opportunity to learn special and complicated operations by assisting the Senior Resident or the Senior Surgeon in operations of cases of the speciality and be responsible for the post-operative care of these cases besides their earlier work up & pre-operative preparations.

A phased programme is gone through. In the first phase the resident is given training in regional anaesthetic block preparations of cases for operation and premeditation. In the next phase, the resident assists the operating surgeon operate independently assisted by senior resident faculty member. He is required to be proficient in some operation and show familiarity with others.

Some of the operative procedures are learnt by the residents by practicing the same on eye balls of the goats.

Residents are taken to eye camps for providing them with an opportunity to operate specially so in the last semesters.

(e) Case Discussions

Detailed ward rounds are conducted by each section where the work if the residents is scrutinized and cases are discussed. Case discussions are also held in the O.P.D. and the speciality clinics.

Beside the above a special case conference is held once a week. One case from each section is selected for discussion which is worked up discussed in the group and then presented ant the case conference where the faculty of the Centre, resident, discuss the problem of diagnosis and management.

## PRACTICALS IN OCULAR HISTOPATHOLOGY

a) General Pathology

The training is given initially in general pathology to give the residents a revision on the basis general pathology and lesions in various other organs. A set of 60 such slides is studied by each resident in the light of the descriptions provided during the first semester.

b) Ocular Pathology

A set of ophthalmic slides fully documented is provided to each resident for study. The residents see the slides, write their descriptions and compare the same with one given in the documentation. This gives them a basic knowledge of known pathological lesions, during the second semester.

The residents are provided with fully stained slides of the tissues received in ocular pathology section from the clinical material. The residents are provided with relevant clinical material. The residents write out a detailed report on the pathological findings of each part of the eye ball and discuss the diagnosis and differential diagnosis on the basis of the information provided and