

CHAPTER - V

14. INTERNSHIP

(1) General

Internship is a phase of training wherein a graduate is expected to conduct actual practice of medical and health care and acquire skills under supervision so that he/she may become capable of functioning independently.

The word “conduct” has been substituted by the words “learn methods/modalities for” in terms of notification published on 20.10.2008 in Gazette of India.

The above clause 14(1) has been substituted in terms of notification published on 15.12.2008 in the Gazette of India.

In order to make trained work force available, it may be considered as a phase of training wherein the graduate is expected to conduct actual practice under the supervision of a trained doctor. The learning methods and modalities have to be done during the MBBS course itself with larger number of hands on session, practice on simulators including zoes models.

(2) SPECIFIC OBJECTIVES

At the end of the internship training, the student shall be able to:

- i. diagnose clinical common disease conditions encountered in practice and make timely decision for referral to higher level;
- ii. use discreetly the essential drugs, infusions, blood or its substitutes and laboratory services.
- iii. Manage all type of emergencies-medical, surgical obstetric, neonatal and paediatric, by rendering first level care;
- iv. Demonstrate skills in monitoring of the National Health Programme and schemes, oriented to provide preventive and promotive health care services to the community;

- v. Develop leadership qualities to function effectively as a leader of the health team organised to deliver the health and family welfare service in existing socio-economic, political and cultural environment;
 - vi. Render services to chronically sick and disabled (both physical and mental) and to communicate effectively with patient and the community.
- (3) Time allocation to each discipline is approximate and shall be guided more specifically by the actual experience obtained. Thus a student serving in a district or taluk hospital emergency room may well accumulate skill in surgery, orthopaedics, medicine, obstetrics and Gynaecology and Paediatrics during even a single night on duty. Responsible authorities from the medical college shall adjust the intern experience to maximize intern's opportunities to practice skills in patient care in rough approximation of the time allocation suggested.

(4) INTERNSHIP – TIME DISTRIBUTION

Compulsory

Community Medicine	3 months
Medicine	2 months
Surgery including Orthopaedics	2 months
Obst./Gynae. Including Family Welfare Planning	2 months
Paediatric	15 days
Ophthalmology	15 days
Otorhinolaryngology	15 days
Casualty	15 days
Elective Postings	One month

Elective subjects-

Elective posting will include two of the following for 15 days in each subject.

- i) Dermatology and Sexually Transmitted Diseases,
- ii) Psychiatry,
- iii) Tuberculosis and Respiratory Diseases,
- iv) Anaesthesia,
- v) Radio-diagnosis,
- vi) Physical Medicine and Rehabilitation,
- vii) Forensic Medicine and Toxicology,
- viii) Blood bank and Transfusion Department

The above clause 14(4) has been substituted in terms of notification published on 20.10.2008 in the Gazette of India.

COMPULSORY

<i>Community Medicine</i>	<i>2 months</i>
<i>Medicine including 15 days of Psychiatry</i>	<i>2 months</i>
<i>Surgery including 15 days Anaesthesia</i>	<i>2 months</i>
<i>Obst./Gynae. including Family</i>	
<i>Welfare Planning</i>	<i>2 months</i>
<i>Paediatrics</i>	<i>1 month</i>
<i>Orthopaedics including PMR</i>	<i>1 month</i>
<i>ENT</i>	<i>15 days</i>
<i>Ophthalmology</i>	<i>15 days</i>
<i>Casualty</i>	<i>15 days</i>
<i>Elective Posting (1x15 days)</i>	<i>15 days</i>

Subjects for Elective posting will be as follows:

- i) *Dermatology and Sexually Transmitted Diseases.*
- ii) *Tuberculosis and Respiratory Diseases.*
- iii) *Radio-Diagnosis*
- iv) *Forensic Medicine*

v) *Blood Bank*

vi) *Psychiatry*

Note: Structure internship with college assessment at the end of the internship.

(5) OTHER DETAILS:

- i) All parts of the internship shall be done as far as possible in institutions of India. In case of any difficulties, the matter may be referred to the Medical Council of India to be considered on individual merit.
- ii) Every candidate will be required after passing the final MBBS examination to undergo compulsory rotational internship to the satisfaction of the College authorities and University concerned for a period of 12 months so as to be eligible for the award of the degree of Bachelor of Medicine and Bachelor of Surgery (MBBS) and full registration.
- iii) The University shall issue a provisional MBBS pass certificate on passing the final examination.
- iv) The State Medical Council will grant provisional registration to the candidate on production of the provisional MBBS pass certificate. The provisional registration will be for a period of one year. In the event of the shortage or unsatisfactory work, the period of provisional registration and the compulsory rotating internship may be suitably extended by the appropriate authorities.
- v) The intern shall be entrusted with clinical responsibilities under direct supervision of senior medical officer. They shall not be working independently.
- vi) Interns will not issue a medical certificate or a death certificate or a medicolegal document under their signature.
- vii) In recognition of the importance of hands-on experience, full responsibility for patient care and skill acquisition, internship should be increasingly scheduled to utilize clinical facilities available in District Hospital, Taluka Hospital, Community Health Centre and Primary Health Centre, in addition to Teaching Hospital. A critical element of internship will be the acquisition of specific experiences and skill as listed in major areas:

Provided that where an intern is posted to District/Sub Divisional Hospital for training, there shall be a committee consisting of representatives of the college/university, the State Government and the District administration, who shall regulate the training of such trainee.

Provided further that for such trainee a certificate of satisfactory completion of training shall be obtained from the relevant administrative authorities which shall be countersigned by the Principal/Dean of College;

viii) Adjustment to enable a candidate to obtain training in elective clinical subjects may be made.

ix) Each medical college shall establish links with one entire district extending out-reach activities. Similarly, Re-orientation of Medical Education (ROME) scheme may be suitably modified to assure teaching activities at each level of District health system which will be coordinated by Dean of the medical college;

x) Out of one year, 6 months shall be devoted to learning tertiary care being rendered in teaching hospital/district hospital suitably staffed with well qualified staff, 3 months of secondary care in a small District or Taluka Hospital/Community Health Centre and 3 months in Primary Health care out of which 2 months should be in Primary Health Programme at the Community level. One month of primary care training may be in the form of preceptorship with a practicing family physician or voluntary agency or other primary health care provider.

xi) One year's approved service in the Armed Forces Medical Services, after passing the final MBBS examination shall be considered as equivalent to the pre-registration training detailed above; such training shall, as far as possible, be at the Base/General Hospital.

(6) ASSESSMENT OF INTERNSHIP:

i) The intern shall maintain a record of work which is to be verified and certified by the medical officer under whom he works. Apart from scrutiny of the record of work, assessment and evaluation of training shall be undertaken by an objective approach using situation tests in knowledge, skills and attitude during and at the end of the training. Based on the record of work and date of evaluation, the Dean/Principal shall issue certificate of satisfactory completion of training, following which the University shall award the MBBS degree or declare him eligible for it.

ii) Satisfactory completion shall be determined on the basis of the following:-

(1) Proficiency of knowledge required for each case

SCORE 0-5

(2) The competency in skills expected to manage each case:

- a) Competency for performance of self performance,
- b) of having assisted in procedures,
- c) of having observed.

SCORE 0-5

(3) Responsibility, punctuality, work up of case, involvement in treatment, follow-up reports.

SCORE 0-5

(4) Capacity to work in a team (Behaviour with colleagues, nursing staff and relationship with paramedicals).

SCORE 0-5

(5) Initiative, participation in discussions, research aptitude.

SCORE 0-5

Poor / Fair / below average / average / above average / excellent
0 1 2 3 4 5

A Score of less than 3 in any of above items will represent unsatisfactory completion of internship.

(7) Full registration shall only be given by the State Medical Council/Medical Council of India on the award of the MBBS degree by the university or its declaration that the candidate is eligible for it.

(8) Some guidelines in the implementation of the training programme are given below.

(9) **INTERNSHIP – DISCIPLINE RELATED:**

(i) Community Medicine

Interns shall acquire skills to deal effectively with an individual and the community in the context of primary health care. This is to be achieved by hands on experience in the district hospital and primary health Centre. The details are as under: -

(I) Community Health Centre/District Hospital/Attachment to General Practitioner:

- (1) During this period of internship an intern must acquire
 - (a) clinical competence for diagnosis of common ailments, use of bed side investigation and primary care techniques;
 - (b) gain information on 'Essential drugs' and their usage;
 - (c) recognise medical emergencies, resuscitate and institute initial treatment and refer to suitable institution.
- (2) Undergo specific Government of India/Ministry of Health and Family Welfare approved training using Government of India prescribed training manual for Medical Officers in all National Health Programmes (e.g. child survival and safe motherhood-EPI, CDD, ARI, FP, ANC, safe delivery, Tuberculosis, Leprosy and others as recommended by Ministry of Health and Family Welfare:-
 - (a) gain full expertise in immunization against infectious disease;
 - (b) participate in programmes in prevention and control of locally prevalent endemic diseases including nutritional disorders;
 - (c) learn skills first hand in family welfare planning procedures;
 - (d) learn the management of National Health Programmes;
- (3) Be capable of conducting a survey and employ its findings as a measure towards arriving at a community diagnosis.
- (4)
 - (a) conduct programmes on health education,
 - (b) gain capabilities to use Audiovisual aids,
 - (c) acquire capability of utilization of scientific information for promotion of community health
- (5) Be capable of establishing linkages with other agencies as water supply, food distribution and other environmental/social agencies.
- (6) Acquire quality of being professional with dedication, resourcefulness and leadership.
- (7) Acquire managerial skills, delegation of duties to paramedical staff and other health professionals.

(II) TALUQA HOSPITAL

Besides clinical skill, in evaluation of patient in the environment and initiation of primary care, an Intern shall: -

- (1) effectively participate with other members of the health team with qualities of leadership;
- (2) make a community diagnosis in specific situations such as epidemics and institute relevant control measures for communicable diseases;
- (3) develop capability for analysis of hospital based morbidity and mortality statistics.
- (4) Use essential drugs in the community with the awareness of availability, cost and side effects;
- (5) Provide health education to an individual/community on :
 - a) tuberculosis;
 - b) small family, spacing, use of appropriate contraceptives;
 - c) applied nutrition and care of mothers and children;
 - d) immunization;
 - e) participation in school health programme.

(III) PRIMARY HEALTH CENTRE

- (1) Initiate or participate in family composite health care (birth to death), Inventory of events;
- (2) Participation in all of the modules on field practice for community health e.g. safe motherhood, nutrition surveillance and rehabilitation, diarrhea disorders etc.
- (3) Acquire competence in diagnosis and management of common ailments e.g. malaria, tuberculosis, enteric fever, congestive heart failure, hepatitis, meningitis acute renal failure etc.;
- (4) Acquire proficiency for Family Welfare Programmes (ante natal care, normal delivery, contraception care etc.)

The following has been added in terms of notification published on 15.12.2008 in the Gazette of India.

(5) A village attachment of atleast one week to understand issues of community health along with exposure to village health centres, ASHA Sub Centres should be added.

(ii) GENERAL MEDICINE

- (I) Interns shall acquire following training during their term.

- (1) acquire competence for clinical diagnosis based on history physical examination and relevant laboratory investigation and institute appropriate line of management;
 - (2) this would include diseases common in tropics (parasitic, bacterial or viral infections, nutritional disorders, including dehydration and electrolyte disturbances) and system illnesses
- (II) The intern shall have assisted as a care team in intensive care of cardiac, respirator, hepatic, neurological and metabolic emergencies.
- (III) The intern shall be able to conduct the following laboratory investigations:
- (a) Blood: (Routine haematology smear and blood groups);
 - (b) Urine: (Routine chemical and microscopic);
 - (c) Stool: (for ova/cyst and occult blood);
 - (d) Sputum and throat swab for gram stain or acid fast stain and
 - (e) Cerebro Spinal Fluid (CSF) for smear.
- (IV) Conduct following diagnostic procedures:
- (a) Urethral catheterisation;
Proctoscopy;
Ophthalmoscopy/Otoscopy;
Indirect laryngoscopy;
 - (b) therapeutic procedures;
Insertion of Ryles Tube;
Pleural, ascetic tap, Cerebro Spinal Fluid (CSF) tap,
installing or air way tube, Oxygen administration etc.
- (V) Biopsy Procedures:
- Liver, Kidney, Skin, Nerve, Lymph node, and muscle biopsy,
Bone marrow aspiration, Biopsy of Malignant lesions on surface,
Nasal/nerve/skin smear for leprosy.
- (VI) (a) Familiarity with usage of life saving procedures:
including use of aspirator, respirator and defibrillator,
(b) Competence in interpretation of different monitoring devices such
as cardiac monitor, blood gas analysis etc.

(VII) Participate as a team member in total health care of an individual including appropriate follow-up and social rehabilitation.

(VIII) Other competencies as indicated in general objectives.

(iii) PAEDIATRICS:

The details of the skills that an intern shall acquire during his/her tenure in the department of Paediatrics are as follows:

The intern shall be able to:

- (1) diagnose and manage common childhood disorders including neonatal disorders and acute emergencies(enquiry from parents of sick children), examining sick child making a record of information;
- (2) carry out activities related to patient care such as laboratory work, investigative procedures and use of special equipments. The details are given as under:-
 - (a) diagnostic techniques: blood (including from femoral vein and umbilical cord), obscess, cerebrospinal fluid, urine, pleura and peritoneum and common tissue biopsy techniques;
 - (b) techniques related to patient care: immunization, perfusion techniques, feeding procedures, tuberculin testing & breast feeding counselling;
 - (c) use of equipment: vital monitoring, temperature monitoring, resuscitation at birth and care of children receiving intensive care;
- (3) screening of newborn babies and those with objective risk factors for any anomalies and steps for prevention in future;
- (4) plan in collaboration with parents and individual, collective surveillance of growth and development of new born babies, infants and children so that he/she is able to:
 - (a) recognise growth abnormalities;
 - (b) recognise anomalies of psychomotor development;
 - (c) detect congenital abnormalities;
- (5) assess nutritional and dietary status of infants and children and organise prevention, detection and follow up of deficiency disorders both at individual and community level such as:

- (a) protein-energy malnutrition
- (b) deficiencies of vitamins especially A, B, C and D;
- (c) Iron deficiency;

- (6) institute early management of common childhood disorders with special reference to Paediatrics dosage and oral rehydration therapy.
- (7) Participate actively in public health programme oriented towards children in the community.

(iv) GENERAL SURGERY

An intern is expected to acquire following skills during his/her posting:

- (A) Diagnose with reasonable accuracy all surgical illnesses including emergencies
- (B) (a) resuscitate a critically injured patient and a severe burns patient;
(b) control surface bleeding and manage open wound;
- (C) (a) monitor patients of head, spine, chest abdominal and pelvic injury;
(b) institute first-line management of acute abdomen;
- (D) (a) perform venesection;
(b) perform tracheostomy and endotracheal intubation;
(c) catheterise patients with acute retention or perform trocar cystostomy,
(d) drain superficial abscesses,
(e) suturing of wound,
(f) perform circumcision,
(g) biopsy of surface tumours,
(h) Perform vasectomy

(v) CASUALTY:

The intern after training in Casualty must be able to:

- (1) identify acute emergencies in various disciplines of medical practice;
- (2) manage acute anaphylactic shock;
- (3) manage peripheral-vascular failure and shock;
- (4) manage acute pulmonary oedema and Left Ventricular failure (LVF);
- (5) undertake emergency management of drowning poisonings and seizures;

- (6) undertake emergency management of bronchial asthma and status asthmaticus;
- (7) undertake emergency management of hyperpyrexia;
- (8) undertake emergency management of comatose patients regarding airways positioning, prevention of aspiration and injuries;
- (9) assess and administer emergency management of burns;
- (10) assess and do emergency management of various trauma victims;
- (11) identify medicolegal cases and learn filling up forms as well as complete other medicolegal formalities in cases of injury, poisoning, sexual offenses, intoxication and other unnatural conditions.

(vi) OBSTETRICS AND GYNAECOLOGY :

Technical skills that interns are expected to learn:

- (1) diagnosis of early pregnancy and provision of ante-natal care;
- (2) diagnosis of pathology of pregnancy related to
 - (a) abortions;
 - (b) ectopic pregnancy;
 - (c) tumours complicating pregnancy;
 - (d) acute abdomen in early pregnancy;
 - (e) hyperemesis gravidarum;
- (3) detection of high risk pregnancy cases and suitable advise e.g. PIH, hydramnios, antepartum haemorrhage, multiple pregnancies, abnormal presentations and intra-uterine growth retardation;
- (4) antenatal pelvic assessment and detection of cephalopelvic disproportion;
- (5) induction of labour and amniotomy under supervision;
- (6) management of normal labour, detection of abnormalities, post-partum hemorrhage and repair of perineal tears;
- (7) assist in forceps delivery;
- (8) assist in caesarean section and postoperative care thereof;
- (9) detection and management of abnormalities of lactation;

- (10) perform non-stress test during pregnancy;
- (11) per speculum, per vaginum and per rectal examination for detection of common congenital, inflammatory, neoplastic and traumatic conditions of vulva, vagina, uterus and ovaries;
- (12) medicolegal examination in Gynecology and obstetrics.
- (13) To perform the following procedures:-
 - (a) dilation and curettage and fractional curettage;
 - (b) endometrial biopsy;
 - (c) endometrial aspiration;
 - (d) pap smear collection;
 - (e) Intra Uterine Contraceptive Device (IUCD) insertion;
 - (f) Minilap ligation;
 - (g) Urethral catheterisation;
 - (h) Suture removal in postoperative cases;
 - (i) Cervical punch biopsy;
- (14) to assist in major abdominal and vaginal surgery cases in Obstetrics and Gynaecology.
- (15) to assist in follow-up postoperative cases of obstetrics and gynaecology such as:
 - (a) Colposcopy;
 - (b) Second trimester Medical Termination of Pregnancy (MTP) procedures e.g. Emcredyl Prostaglandin instillations;
- (16) To evaluate and prescribe oral contraceptive.

(vii) OTO RHINO LARYNGOLOGY (ENT)

- (1) Interns shall acquire ability for a comprehensive diagnosis of common Ear, Nose and Throat (ENT) diseases including the emergencies and malignant neoplasma of the head and neck;
- (2) he/she shall acquire skills in the use of head mirror, otoscope and indirect laryngoscopy and first line of management of common Ear Nose and Throat (ENT) problems;
- (3) he/she shall be able to carry out minor surgical procedures such as:
 - (a) earsyringing antrum puncture and packing of the nose for epistaxis,
 - (b) nasal douching and packing of the external canal,
 - (c) Remove the foreign bodies from the nose and ear

- (d) Observed or assisted in various endoscopic procedures and tracheotomy;
- (4) an item shall have participated as a team member in the community diagnosis e.g. Chronic Suppurative Otitis Media (CSOM) and be aware of national programme on prevention of deafness
- (5) he/she shall possess knowledge of various ENT rehabilitative programmes.

(viii) OPHTHALMOLOGY

An intern shall acquire following skills: -

- (1) he/she shall be able to diagnose and manage common ophthalmological conditions such as:-
Trauma, Acute conjunctivitis, allergic conjunctivitis, xerosis, entropion, corneal ulcer, iridocyclitis, myopia, hypermetropia, cataract, glaucoma, ocular injury and sudden loss of vision;
- (2) he shall be able to carry out assessment of refractive errors and advise its correction;
- (3) he shall be able to diagnose ocular changes in common systemic disorders;
- (4) he/she shall be able to perform investigative procedures such as:-
Tonometry, syringing, direct ophthalmoscopy, subjective refraction and fluorescein staining of cornea.
- (5) he/she shall have carried out or assisted the following procedures:
 - (1) Subconjunctival injection;
 - (2) Ocular bandaging;
 - (3) Removal of concretions;
 - (4) Epilation and electrolysis;
 - (5) Corneal foreign body removal;
 - (6) Cauterization of corneal ulcers;
 - (7) Chalazion removal;
 - (8) Entropion correction;
 - (9) Suturing conjunctival tears;
 - (10) Lids repair
 - (10) Glaucoma surgery (assisted);
 - (11) Enucleation of eye in cadaver;
- (6) he/she shall have full knowledge on available methods for rehabilitation of the blind.

**(ix) ORTHOPAEDICS ;
GOAL:**

The aim of teaching the undergraduate student in Orthopaedics and Rehabilitation is to impart such knowledge and skills that may enable him to diagnose and treat common ailments. He shall have ability to diagnose and suspect presence of fracture, dislocation, acute osteomyelitis, acute poliomyelitis and common congenital deformities such as congenital talipes equinovarus (CTEV) and dislocation of hip (CDH).

(A) **THERAPEUTIC-** An intern must know:

- (a) Splinting (plaster slab) for the purpose of emergency splintage, definitive splintage and post operative splintage and application of Thomas splint;
- (b) Manual reduction of common fractures – phalangeal, metacarpal, metatarsal and Colles's fracture;
- (c) Manual reduction of common dislocations – interphalangeal, metacarpophalangeal, elbow and shoulder dislocations;
- (d) Plaster cast application for undisplaced fractures of arm, fore arm, leg and ankle;
- (e) Emergency care of a multiple injury patient;
- (f) Precautions about transport and bed care of spinal cord injury patients.

(B) **Skill that an intern should be able to perform under supervision:**

- (1) Advise about prognosis of poliomyelitis, cerebral palsy, CTEV and CDH;
- (2) Advise about rehabilitation of amputees and mutilating traumatic and leprosy deformities of hand;

(C) An intern must have observed or preferably assisted at the following operations:

- (1) drainage for acute osteomyelitis;
- (2) sequestrectomy in chronic osteomyelitis;
- (3) application of external fixation;
- (4) internal fixation of fractures of long bones.

(x) **DERMATOLOGY AND SEXUALLY TRANSMITTED DISEASES**

An intern must be able to: -

- (1) conduct proper clinical examination; elicit and interpret physical findings, and diagnose common disorders and emergencies.
- (2) Perform simple, routine investigative procedures for making bedside diagnosis, specially the examination of scraping for fungus, preparation

of slit smears and staining for AFB for leprosy patient and for STD cases;

- (3) Take a skin biopsy for diagnostic purpose;
- (4) Manage common diseases recognizing the need for referral for specialized care in case of inappropriateness of therapeutic response.

(xi) PSYCHIATRY :

An Intern must be able to:

- (1) diagnose and manage common psychiatric disorders;
- (2) identify and manage psychological reaction and psychiatric disorders in medical and surgical patients in clinical practice and community setting.

(xii) TUBERCULOSIS AND RESPIRATORY DISEASES :

An intern after training must be able to: -

- (1) conducting proper clinical examination, elicit and interpret clinical findings and diagnose common respiratory disorders and emergencies;
- (2) perform simple, routine investigative procedures required for making bed side diagnosis, specially sputum collection, examination for etiological organism like AFB, interpretation of chest X-rays and respiratory function tests;
- (3) Interpret and manage various blood gases and pH abnormalities in various respiratory diseases;
- (4) Manage common diseases recognizing need for referral for specialized care in case of inappropriateness of therapeutic response;
- (5) Perform common procedures like laryngoscopy, pleural aspiration, respiratory physiotherapy, laryngeal intubation and pneumo-thoracic drainage aspiration.

(xiii) ANAESTHESIA :

After the internship in the department of Anesthesiology an intern shall acquire knowledge, skill and attitude to:

- (1) perform pre-anaesthetic check up and prescribe pre-anaesthetic medications;
- (2) perform venepuncture and set up intravenous drip;
- (3) perform laryngoscopy and endotracheal intubation;
- (4) perform lumbar puncture, spinal anaesthesia and simple nerve blocks;
- (5) conduct simple general anaesthetic procedures under supervision;
- (6) monitor patients during anaesthesia and post operative period;

- (7) recognise and manage problems associated with emergency anaesthesia;
- (8) maintain anaesthetic records;
- (9) recognise and treat complication in post operative period;
- (10) perform cardio-pulmonary brain resuscitation (C.P.B.R.) correctly, including recognition of cardiac arrest.

(xiv) RADIO-DIAGNOSIS:

An intern after training must be able to identify and diagnose:

- (1) all aspects of 'Emergency Room' Radiology like –
 - (a) all acute abdominal conditions;
 - (b) all acute traumatic conditions with emphasis on head injuries;
 - (c) differentiation between Medical and surgical radiological emergencies;
- (2) Basic hazards and precautions in Radio-diagnostic practices.

(xv) PHYSICAL MEDICINE AND REHABILITATION:

An intern is expected to acquire the following skills during his/her internship: -

- (1) competence for clinical diagnosis based on details history an assessment of common disabling conditions like poliomyelitis, cerebral palsy, hemiplegia, paraplegia, amputations etc;
- (2) participation as a team member in total rehabilitation including appropriate follow up of common disabling conditions;
- (3) principles and procedures of fabrication and repair of artificial limbs and appliances;
- (4) various therapeutic modalities;
- (5) use of self help devices and splints and mobility aids;
- (6) familiarity with accessibility problems and home making for disabled;
- (7) ability to demonstrate simple exercise therapy in common conditions like prevention of deformity in polio, stump exercise in an amputee etc.;

(xvi) FORENSIC MEDICINE AND TOXICOLOGY

The intern is to be posted in the casualty department of the hospital while attached under Forensic Medicine Department with the following objectives:

- (1) to identify medicolegal problem in a hospital and general practice;

- (2) to identify and learn medicolegal responsibilities of a medical man in various hospital situations;
- (3) to be able to diagnose and learn management of basic poisoning conditions in the community;
- (4) to learn how to handle cases of sexual assault;
- (5) to be able to prepare medico-legal reports in various medicolegal situations;
- (6) to learn various medicolegal post-mortem procedures and formalities during its performance by police.

APPENDIX 'A'

Curriculum in 'Family Welfare' for the Bachelor of Medicine and Bachelor of Surgery (MBBS) Course.

The Curriculum may be considered under various pre and para clinical heads and the following details are worked out for each of the disciplines.

1. Anatomy

- (1) Gross and microscopic anatomy of the male and female generative organs.
- (2) The menstrual cycle.
- (3) Spermatogenesis and Oogenesis
- (4) Fertilization of the ovum.
- (5) Tissue and organ changes in the mother in pregnancy.
- (6) Embryology and Organogenesis.
- (7) Principles of Genetics.
- (8) Applied anatomy of mechanical methods of preventing conception.
 - a) in female- chemical contraceptive, pessaries, Intra-Uterine Contraceptive Device (IUCD), tubectomy etc.
 - b) in male – condom, vasectomy etc.

2. Physiology

- (1) Physiology of reproduction.
- (2) Endocrines and regulations of reproduction in the female
- (3) Endocrines and physiology of reproduction in the male.
- (4) Physiology and Endocrinology of pregnancy, parturition and lactation.
- (5) Nutritional needs of mother and child during pregnancy and lactation.
- (6) The safe period-rhythm method of contraceptions.
- (7) Principles of use of oral contraceptive.

3. Pharmacology

- (1) Mode of action and administration of:
 - (a) Chemical contraceptive
 - (b) Oral contraceptive
- (2) Contra indication for administration of contraceptives.
- (3) Toxic effects of contraceptives.

4. Community Medicine

- (1) The need for family welfare Planning.

- (2) Organization of Family Welfare Planning service.
- (3) Health Education in relating to Family Welfare Planning.
- (4) Nutrition.
- (5) Psychological needs of the mother, the child and the family.
- (6) Demography and vital Statistics.

5. **Obstetrics & Gynaecology**

- (1) Contraceptive methods in male/female.
 - (a) Mechanical
 - A. Pessaries, Intra Uterine Contraceptive Device (IUCD), Condoms,
 - B. Tubectomy and vasectomy
 - (b) Chemical
 - (c) Oral
 - (d) Rhythm Method
- (2) Demonstrations of use of Pessaries, IUCD, Condoms and technique of tubectomy
- (3) Advice on family planning to be imparted to parents.

6. **Paediatrics:**

- (1) Problems of child health in relation to large family.
 - (a) Organization of pediatric services.
 - (b) Nutritional problems of mother and child.
 - (c) Childhood diseases due to overcrowding.

7. **Surgery**

Technique of Vasectomy.

I. **Compulsory Internship**

Placement of a student for in-service training in a family welfare planning clinic for a period of at least one month.

II. **Examination**

It is necessary that questions on family welfare planning be introduced in the theory, practical and oral examination throughout the MBBS course.

The curriculum content has been indicated subjectwise. However, it would be more advantageous to the student for purpose of integrated learning and for understanding of the subject if family welfare planning instruction with the curriculum content indicated could be divided into two parts.

Part-I
Anatomy, Physiology, Biochemistry and Pharmacology

There shall be close integration in the teaching of these subjects. It is suggested that during the early para-clinical years, two to three weeks may be set apart for instruction in Family Welfare Planning relating to these subjects; so that the student gets an overall understanding of the principles and practice of "Family Planning" within the limited time available for covering all the subjects of the medical course. The method suggested would save time and repetition of essential facts.

Part-II

This includes the later para-clinical and clinical courses. The practical aspects of Family Welfare Planning methods should be emphasized. The program of instruction shall be supervised by the Department of Obstetrics and Gynaecology. The department of Community Medicine Internal Medicine, Psychiatry, Paediatrics and Surgery must be closely associated in imparting instruction relating to the problems arising for want of family welfare planning and the advantages to society and the individual which will be gained by adopting the measures suggested.

Seminars:

The medical colleges shall organise occasional seminars in which staff from all departments and the in-service trainees shall participate.

APPENDIX-B

A comprehensive list of skills recommended as desirable for Bachelor of Medicine and Bachelor of Surgery (MBBS) Graduate:

I. Clinical Evaluation:

- (a) To be able to take a proper and detailed history.
- (b) To perform a complete and thorough physical examination and elicit clinical signs.
- (c) To be able to properly use the stethoscope, Blood Pressure, Apparatus Auroscope, Thermometer, Nasal Speculum, Tongue Depressor, Weighing Scales, Vaginal Speculum etc.:
- (d) To be able to perform internal examination-Per Rectum (PR), Per Vaginum (PV) etc.
- (e) To arrive at a proper provisional clinical diagnosis.

II. Bed side Diagnostic Tests:

- (a) To do and interpret Haemoglobin(HB), Total Count (TC), Erythrocytic Sedimentation Rate (ESR), Blood smear for parasites, Urine examination /albumin /sugar /ketones /microscopic.:
- (b) Stool exam for ova and cysts;
- (c) Gram, staining and Siehl-Nielsen staining for AFB;
- (d) To do skin smear for lepra bacilli
- (e) To do and examine a wet film vaginal smear for Trichomonas
- (f) To do a skin scraping and Potassium Hydroxide (KOH) stain for fungus infections;
- (g) To perform and read Montoux Test.

III. Ability to Carry Out Procedures.

- (a) To conduct CPR (Cardiopulmonary resuscitation) and First aid in newborns, children and adults.
- (b) To give Subcutaneous (SC) /Intramuscular (IM) /Intravenous (IV) injections and start Intravenous (IV) infusions.
- (c) To pass a Nasogastric tube and give gastric leavage.
- (d) To administer oxygen-by mask/catheter
- (e) To administer enema
- (f) To pass a urinary catheter- male and female
- (g) To insert flatus tube
- (h) To do pleural tap, Ascitic tap & lumbar puncture
- (i) Insert intercostal tube to relieve tension pneumothorax
- (j) To control external Haemorrhage.

IV Anaesthetic Procedure

- (a) Administer local anaesthesia and nerve block
- (b) Be able to secure airway potency, administer Oxygen by Ambu bag.

IV. Surgical Procedures

- (a) To apply splints, bandages and Plaster of Paris (POP) slabs;
- (b) To do incision and drainage of abscesses;
- (c) To perform the management and suturing of superficial wounds;
- (d) To carry on minor surgical procedures, e.g. excision of small cysts and nodules, circumcision, reduction of paraphimosis, debridement of wounds etc.
- (e) To perform vasectomy;
- (f) To manage anal fissures and give injection for piles.

VI Mechanical Procedures

- (a) To perform thorough antenatal examination and identify high risk pregnancies.
- (b) To conduct a normal delivery;
- (c) To apply low forceps and perform and suture episiotomies;
- (d) To insert and remove IUD's and to perform tubectomy

VII Paediatrics

- (a) To assess new borns and recognise abnormalities and I.U. retardation
- (b) To perform Immunization;
- (c) To teach infant feeding to mothers;
- (d) To monitor growth by the use of 'road to health chart' and to recognize development retardation;
- (e) To assess dehydration and prepare and administer Oral Rehydration Therapy (ORT)
- (f) To recognize ARI clinically;

VIII ENT Procedures:

- (a) To be able to remove foreign bodies;
- (b) To perform nasal packing for epistaxis;
- (c) To perform trachesotomy

IX Ophthalmic Procedures:

- (a) To invert eye-lids;

- (b) To give Subconjunctival injection;
- (c) To perform appellation of eye-lashes;
- (d) To measure the refractive error and advise correctional glasses;
- (e) To perform nasolacrimal duct syringing for patency

X. **Dental Procedures:**

To perform dental extraction

XI **Community Health:**

- (a) To be able to supervise and motivate, community and para-professionals for corporate efforts for the health care;
- (b) To be able to carry on managerial responsibilities, e.g. Management of stores, indenting and stock keeping and accounting
- (c) Planning and management of health camps;
- (d) Implementation of national health programmes;
- (e) To effect proper sanitation measures in the community, e.g. disposal of infected garbage, chlorination of drinking water;
- (f) To identify and institute and institute control measures for epidemics including its proper data collecting and reporting.

XII **Forensic Medicine Including Toxicology**

- (a) To be able to carry on proper medicolegal examination and documentation of injury and age reports.
- (b) To be able to conduct examination for sexual offences and intoxication;
- (c) To be able to preserve relevant ancillary material for medico legal examination;
- (d) To be able to identify important post-mortem findings in common unnatural deaths.

XII **Management of Emergency**

- (a) To manage acute anaphylactic shock;
- (b) To manage peripheral vascular failure and shock;
- (c) To manage acute pulmonary oedema and LVF;
- (d) Emergency management of drowning, poisoning and seizures
- (e) Emergency management of bronchial asthma and status asthmaticus;
- (f) Emergency management of hyperpyrexia;
- (g) Emergency management of comatose patients regarding airways, positioning prevention of aspiration and injuries
- (h) Assess and administer emergency management of burns