PROGRAM
MD DERMATOLOGY

Courses

Paper I Basic Sciences in Relation to the Specialty (Course 1 – U19MDDR01)

CO1: Describe structure, functions and development of human skin.

CO2: Describe ultrastructural aspects of epidermis, epidermal appendages, dermoepidermal junction, dermis, and sub-cutis.

CO3: Describe basic pathologic patterns and reactions of skin.

CO4: Demonstrate the knowledge of common laboratory stains and procedures used in the histopathologic diagnosis of skin diseases and special techniques such as immunofluorescence, immunoperoxidase and other related techniques.

CO5: Describe disorders of epidermal appendages and related disorders.

Topics Related to Allied Basic Sciences

- The structure, function and development of human skin.
- Skin as a barrier
- Ultra structural aspects of epidermis, epidermal appendages, dermoepidermal junction, dermis, and sub-cutis
- Molecular biology and genetics in relation to the skin.
- Epidermal cell kinetics and Keratinization
- Lipids of epidermis and sebaceous glands
- Percutaneous absorption
- Biology of eccrine and apocrine sweat glands
- **Biology of hair follicles, sebaceous glands and nails**
- Biology of melanocytes and melanin formation
- **Disorders of keratinization**
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- Epidermal proteins
- Dermal connective tissue : collagen, elastin, reticulin, basement membrane and ground substance
- Metabolism of carbohydrates, proteins, fats and steroids by the skin
- Cutaneous vasculature and vascular responses
- Mechanism of cutaneous wound healing
- Cellular and molecular biology of cutaneous inflammation
- Immunological aspects of skin
- HLA system, Immunoglobulins, cytokines

- Complement system
- Hyper-sensitivity and allergy
- Cutaneous carcinogens
- Basics of cutaneous bacteriology, mycology, virology, parasitology and defense mechanism.
- **Common laboratory procedures, stains,culture media and related serological tests**
- Basic pathologic reaction pattern in skin
- Common and special histopathological stains and procedures used in the diagnosis of skin diseases and Special techniques such as immunofluorescence, immunoperoxidase and other related techniques.

Paper - II Dermatology and Therapeutics (Course 2 – U19MDDR02)

CO1: Describe pharmacokinetics and principles of topical and systemic therapy.

CO2: Describe drug reaction, its diagnosis and management.

CO3: Describe indications and methods for fluid and electrolyte replacement therapy including blood transfusion in dermatological conditions.

CO4: Ability to plan and deliver comprehensive treatment for diseases using principles of rational drug therapy.

CO5: Acquire knowledge of the basics of laser operation and precautions which needs to be taken.

THERAPEUTICS

Topical Therapy

- Pharmacokinetics and topical applications of drugs
- **Principles of topical therapy, topical formulations**

Topical Agents

- Glucocorticoids, analgesics, anaesthetics, antiinflammatory, anti microbial, anti parasitic, antiperspirants, antipruritic, antiviral, astringents, bleaching agents, keratolytics and keratoplastic agents.
- **Therapies:antiviral, topical antibiotics, topical antifungal agents, sun-screens, cytotoxic agents, cosmetics and skin care products, emollients and moisturizers**.
- **Management of alopecia**

Systemic Therapy

- Systemic glucocorticoids,antihistamines, antibiotics, sulfones, aminoquinolones, cytotoxic and antimetabolic agents, oral retinoids, antihistamines, antiviral drugs, oral antifungal agents, immunosuppressive and immunomodulatory drugs, thalidomide.
- Phakomatosis
- Oral retinoids and teratogenicity

Dermatological surgery

- Phototherapy,photochemotherapy, electrocautery, electrolysis, cryotherapy,tattooing, intra-lesional injections, etc.

Paper - III Dermatology in relation to systemic diseases (Course 3 – U19MDDR03)

CO1: Describe cutaneous manifestations of systemic disorders.

CO2: Describe etiology, pathophysiology, principles of diagnosis and management of common problems in dermatology including emergencies in adults and children

CO3: Describe common dermatological malignancies in the country and their management including prevention.

CO4: Should be expert in evaluation of ECG, chest X-ray (CXR), biochemical, haematology and immunology reports related to dermatology.

CO5: Should also have a broad idea how to approach an uncommon dermatological disease.

Cutaneous Manifestations of Disease in Other Organ Systems

- Sarcoidosis of the skin
- Cutaneous Manifestations of Internal Malignancy
- Acanthosis Nigricans- role in diabetes detection and Gastrointestinal malignanccies
- Papular Mucinosis
- Neurocutaneous Disease
- Tuberous Sclerosis Complex
- Neurofibromatosis
- Dermatological manifestations of anti psychotic medications
- Ataxia Telangiectasia
- Behcet's Disease
- Steven Johnson Syndrome

Skin Manifestations of systemic disorders

- Skin and disorders of the alimentary tract
- Hepatobiliary system and the skin
- Cutaneous changes in renal, cardiovascular, pulmonary and endocrine disorders
- Skin changes in pregnancy
- **Cutaneous changes in haematological disease**

Paper - IV Venereology and Leprosy and Recent Advances (Course 4 – U19MDDR04)

CO1: Should be competent in the clinical approach to the patient of STDs and HIV/AIDS.

CO2: Should be able to interpret the histopathological diagnosis including laboratory aids related with venereology.

CO3: Able to perform dark ground illumination, gram stain, Bubo aspiration and tissue smear.

CO4: Able to manage the patient according to syndromic approach for treatment of STDs.

CO5: The student should be able to diagnose and approach the case of leprosy.
CO6: The student should be able to perform AFB smear.
CO7: The student should be able to manage cases of lepra reaction.
CO8: The student should be able to identify, judge and decide when to refer the patients at appropriate level for surgery or rehabilitation.
CO9: The student should be able to plan rehabilitation of patient suffering from chronic illness and disability and those with special needs like leprosy.

STD

- **Clinical approach to the patient with STD**
- **Anatomy of male and female genitalia**
- Epidemiology of STD's
- Viral STD's including HIV, HSV, HPV, Molluscum contagiosum, Hep B etc.
- Bacterial STD's : Syphilis, gonorrhoea, chancroid, donovanosis, bacterial vaginosis
- Chlamydial and mycoplsma infections : Lymphogranuloma venereum, urethritis, cervicits, NGU
- Fungal : Candidiasis
- Protozoal : Trichomoniasis
- Ectoparasitic : scabies, pediculosis infestations.
- Syndromic management of STDs
- STDs in reproductive health and paediatrics
- STDs and HIV
- **Prevention, counselling and education of different STD's including HIV**
- National control programmes of STDs and HIV infection
- Medicolegal, social aspects of STD's including psychological and behavioural abnormalities in STD patients

LEPROSY

- **Approach to the patient with leprosy**
- Epidemiological aspects
- Structure, biochemistry, microbiology of Mycobacterium leprae
- Animal models
- Pathogenesis
- Classification
- Immunology and molecular biological aspects
- Histopathology and diagnosis including laboratory aids

- Clinical features
- Reactions
- Systemic involvement (ocular, bone, mucosa, testes,.endocrine etc.)
- Pregnancy and leprosy
- HIV infection and leprosy
- Therapeutic aspects including newer drugs
- Immunotherapy
- Disabilities, deformities and rehabilitation
- Prevention, education and counselling
- **National leprosy control, elimination ,eradication programmes**

Soft Skills (Course 5 – U 1 5 MDDR05)

CO1: Competency to conduct a clinical research.
CO2: Competency to work as a part of a team.
CO3: Knowledge of medical ethics and ettiquette.
CO4: Ability to interact with the patients and their relatives in an effective manner.
CO5: Attitude to be a lifelong learner.
CO6: Ability to be an effective teacher/communicator.

This is an elective course which spreads across the duration of the program.

Assessments/ Examinations

Concurrent examination/assessment

The purpose of the concurrent assessment is to give regular feed back to the candidates about their performance and to prepare them for the final terminal examination by giving them exposure to the examination pattern.

The practical examination (300 marks) will include long case, short case, spotters, ward rounds, viva voce on the topics covered during the period by the hospital/institution.

FINAL EXAMINATION

Theory

Total Marks- 100 each

PAPER I	-	Basic Sciences in relation to the-Speciality
PAPER II	-	Dermatology & Therapeutics
PAPER III	-	Dermatology in relation to systemic diseases
PAPER IV	-	Venereology and Leprosy recent advances

Practical Examination

Three cases (one long case, one each semilong/short case of Dermatology/ STD, Leprosy), 10 Spotters , OSCE

Viva voce comprising of :Radiological, Biochemical Investigations, Instruments
Drugs and Clinical Problems in Dermatology,
Discussion of Histopathology slides – 5 slides

THEORY SYLLABUS

Fundamentals of Cutaneous Diagnosis-Basic skin lesions, history taking, examination of the patient including relevant diagnostic,clinical tests and aids

Topics Related to Allied Basic Sciences

- The structure, function and development of human skin.
- Skin as a barrier
- Ultra structural aspects of epidermis, epidermal appendages, dermoepidermal junction, dermis, and sub-cutis
- Molecular biology and genetics in relation to the skin.
- Epidermal cell kinetics and Keratinization
- Lipids of epidermis and sebaceous glands
- Percutaneous absorption
- Biology of eccrine and apocrine sweat glands
- Biology of hair follicles, sebaceous glands and nails
- Biology of melanocytes and melanin formation
- Disorders of keratinization
- Epidermal proteins
- Dermal connective tissue : collagen, elastin, reticulin, basement membrane and ground substance
- Metabolism of carbohydrates, proteins, fats and steroids by the skin
- Cutaneous vasculature and vascular responses
- Mechanism of cutaneous wound healing
- Cellular and molecular biology of cutaneous inflammation
- Immunological aspects of skin
- HLA system, Immunoglobulins, cytokines
- Complement system
- Hyper-sensitivity and allergy
- Cutaneous carcinogens
- Basics of cutaneous bacteriology, mycology, virology, parasitology and defense mechanism.
- Common laboratory procedures, stains,culture media and related serological tests
- Basic pathologic reaction pattern in skin
- Common and special histopathological stains and procedures used in the diagnosis of skin diseases and Special techniques such as immunofluorescence, immunoperoxidase and other related techniques.

Clinical Dermatology

- Epidemiology of cutaneous diseases

- Pyschologic aspects of skin disease and psycho-cutaneous disorders
- Pathophysiology and clinical aspects of pruritus.

Papulo-squamous Diseases

- Psoriasis, Pityriasis rubra pilaris, pityriasis rosea,Lichen Planus, lichenoid eruptions
- Parapsoriasis,
- Darier's disease. Porokeratosis
- Ichthyoses and ichthyosiform dermatoses, Keratodermas

Vesiculo-bullous Disorders

- Erythema multiforme, Stevens-Johnson syndrome, toxic epidermal necrolysis and pemphigus group of disorders
- Bullous pemphigoid
- Chronic bullous disease of childhood
- Herpes gestationis
- Mechanobullous (hereditary and acquired)
- Epidermolysis bullosa acquisita
- Dermatitis herpetiformis
- Subcorneal pustular dermatoses

Disorders of Epidermal Appendages

- Disorders of hair and nails
- Disorders of sebaceous glands : Acne
- Rosacea, perioral dermatitis
- Disorders of eccrine and apocrine sweat glands

Tumours

- Naevi and hamartomas
- Precancerous Skin lesions, Squamous cell carcinoma and Basal cell carcinoma, malignant melanoma
- Benign epithelial tumours, appendageal tumours

Disorders of pigmentation

- Vitiligo, Albinism, Benign neoplasia and hyperplasia of melanocytes, Dyplastic melanocytic nevi, hyperpigmentation

Inflammatory Disorders of the Dermis

- Acute Febrile Neutrophilic dermatoses
- Erythema elevatum diutinum
- Cutaneous eosinophilic diseases
- Granuloma faciale
- Pyoderma gangrenosum

- Erythema annulare centrifugum and other Figurate Erythemas
- Granuloma annulare
- Malignant atrophic papulosis
- Neoplasms, Pseudo neoplasms and Hyperplasias of the Dermis
- Vascular Anomalies, Kaposi's Sarcoma
- Anetoderma and other Atrophic Disorders of the skin
- Neoplasias and hyperplasias of Neural and Muscular origin
- Elastosis Perforans Serpiginosa, Reactive Perforating Collagenosis, Kyrle's disease

Lymphomas, Pseudolymphomas and Related Conditions

Disorders of Subcutaneous Tissue

- Panniculitis
- Lipodystrophy
- Neoplasms of the subcutaneous Fat

Disorders of the Mucocutaneous Integument, dermatitis & eczemas

- Biology and disorders of oral mucosa
- Disorders of ano-genitalia of males and females
- Genetic Immunodeficiency Disease
- Urticaria and Angioedema
- Disorders associated with complement abnormalities
- Graft-versus-Host Disease
- Muco-cutaneous manifestations in immunosuppressed host other than HIV-infection
- Contact Dermatitis
- Auto sensitization dermatitis
- Atopic dermatitis (Atopic Eczema)
- Nummular eczematous dermatitis
- Seborrhoeic dermatitis
- Vesicular palmoplantar eczema
- Erythrodermas

Skin Changes Due to Mechanical and Physical Factors

- Occupational skin disease
- Radiation to the skin

- Skin diseases due to cold, heat

Photobiology of skin

- Normal reaction to ultra violet rays and sun exposure

Disorders Due to Drugs and Chemical Agents

- Cutaneous reactions and mucocutaneous reactions to chemicals and drugs
- Pathological response to UVR and sun exposure
- Cutaneous manifestations of drug Abuse

Abnormal vascular response

- Erythemas including annular erythemas
- Urticaria
- Vasculitis

Dermatology and age of man

- Ageing of skin
- Neonatal dermatological problems
- Pediatric and adolescent problems
- Geriatric dermatological problems

Skin Lesions in nutritional and metabolic disorders

- Porphyrias
- Xanthomas
- Disorders of lipid metabolism and storage
- Mucinosis
- Amyloidosis
- Angiokeratoma corpris diffusum
- Lipoid proteinosis
- Malabsorption
- Vitamin and mineral deficiency and excess

Skin Manifestations of systemic disorders

- Skin and disorders of the alimentary tract
- Hepatobiliary system and the skin
- Cutaneous changes in renal, cardiovascular, pulmonary and endocrine disorders
- Skin changes in pregnancy
- Cutaneous changes in haematological disease

Genodermatosis

- Phacomatosis
- Tuberous sclerosis
- Incontinentia pigmenti
- Ectodermal dysplasia
- Xeroderma pigmentosum

Connective tissue disorder

- Lupus erythematosus
- Dermatomyositis
- Scleroderma
- MCTD (Mixed connective Tissue Disease)
- Relapsing polychondritis
- Rheumatoid arthritis, rheumatic fever and gout
- Sjogren's syndrome
- Raynaud's phenomenon
- Multicentric reticulohistiocytosis

Cutaneous Manifestations of Disease in Other Organ Systems

- Sarcoidosis of the skin
- Cutaneous Manifestations of Internal Malignancy
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- Papular Mucinosis
- Neurocutaneous Disease
- Tuberous Sclerosis Complex
- Neurofibromatosis
- Ataxia Telangiectasia
- Behcet's Disease

Bacterial infections

- Pyodermas : Staphylococcus, Streptococcus and others
- Staphylococcal scalded-skin syndrome
- Soft tissue infections : Erysipelas, Cellulitis
- Systemic bacterial infections with cutaneous manifestations
- Cutaneous tuberculosis and atypical mycobacterial infections
- Actinomycetoma

Fungal infections

- Superficial fungal infection : (dermatophytosis, yeast, others)
- Deep fungal infections

Viral and rickettsial infections

- Herpes simplex virus infections
- Varicella – zoster infection
- Human papilloma virus
- Molluscum contagiosum
- Hepatitis B, C
- Rubella
- Measles

THERAPEUTICS

Topical Therapy

- Pharmacokinetics and topical applications of drugs
- Principles of topical therapy, topical formulations

Topical Agents

- Glucocorticoids, analgesics, anaesthetics, antiinflammatory, anti microbial, anti parasitic, antiperspirants, antipruritic, antiviral, astringents, bleaching agents, keratolytics and keratoplastic agents.
- Therapies:antiviral, topical antibiotics, topical antifungal agents, sun-screens, cytotoxic agents, cosmetics and skin care products, emollients and moisturizers.

Systemic Therapy

- Systemic glucocorticoids,antihistamines, antibiotics, sulfones, aminoquinolones, cytotoxic and antimetabolic agents, oral retinoids, antihistamines, antiviral drugs, oral antifungal agents, immunosuppressive and immunomodulatory drugs, thalidomide.

Dermatological surgery

- Phototherapy,photochemotherapy, electrocautery, electrolysis, cryotherapy,tattooing, intra-lesional injections, etc.

Dermatosurgery : Introduction and approach

- Skin resurfacing : chemical peels
- Skin resurfacing : dermabrasion
- Skin resurfacing : Laser
- Skin punch grafting
- Wound dressings

- Tumescent liposuction
- Substances for soft tissue augmentation
- Hair transplantation
- Cryosurgery
- Moh's micrographic surgery
- Nail surgery

STD

- Clinical approach to the patient with STD
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- Bacterial STD's : Syphilis, gonorrhoea, chancroid, donovanosis, bacterial vaginosis
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- Fungal : Candidiasis
- Protozoal : Trichomoniasis
- Ectoparasitic : scabies, pediculosis infestations.
- Syndromic management of STDs
- STDs in reproductive health and paediatrics
- STDs and HIV
- Prevention, counselling and education of different STD's including HIV
- National control programmes of STDs and HIV infection
- Medicolegal, social aspects of STD's including psychological and behavioural abnormalities in STD patients

LEPROSY

- Approach to the patient with leprosy
- Epidemiological aspects
- Structure, biochemistry, microbiology of Mycobacterium leprae
- Animal models
- Pathogenesis
- Classification
- Immunology and molecular biological aspects
- Histopathology and diagnosis including laboratory aids
- Clinical features
- Reactions
- Systemic involvement (ocular, bone, mucosa, testes,.endocrine etc.)

- Pregnancy and leprosy
- HIV infection and leprosy
- Therapeutic aspects including newer drugs
- Immunotherapy
- Disabilities, deformities and rehabilitation
- Prevention, education and counselling
- National leprosy control, elimination ,eradication programmes

MINIMUM SKILLS TO BE ACQUIRED DURING THE TRAINING PERIOD

PROCEDURES

- Skin Scraping for fungus
- Nail Scraping for fungus
- Hair for fungus
- Slit skin smear examination for AFB
- Smear examination and preparation
    - Tzanck smear
    - Ziehl Neelsen stain
    - Gram's stain
    - Leishman's stain
- FNAC
- Intralesional injections
- Skin Biopsy
- Electrosurgery
- Chemical Cautery
- Cryosurgery
- Punch grafting/biopsy/other aspects of vitiligo surgery
- Skin resurfacing-Dermabrasion
  Laser
  Chemical peels
- Nail Surgery
- Comedone/Milia extraction
- Exicision of growth/papilloma/cysts etc.
- Woods lamp examination
- Dark ground microscopy
- Allergy testing ,patch testing ,photo patch testing

- Phototherapy dosage schedules and administration

SAMPLE CASES FOR PRESENTATION AND DISCUSSION

LONG CASES

- Systemic sclerosis (Scleroderma)
- SLE
- Disseminated discoid lupus erythematosus
- Dermatomyosistis/mixed connective tissue disorders
- Psoriatic arthritis
- Pustular psoriasis
- Pemphigus and its variants
- Pemphigoid
- Chronic bullous dermatosis of childhood
- SJ syndrome/TEN
- Dermatitis herpetiformis
- Reiter's disease
- Sarcoidosis
- Tuberculosis of skin
- Erythroderma
- Airborne contact dermatitis
- Pityriasis rubra pilaris
- Ichthyosiform dermatoses
- Parapsoriasis
- Deep fungal infections
- Behcet's disease
- Xanthoma
- Lipoid proteinosis
- Exanthematous drug eruptions
- Photodermatosis

STD

- Genital Ulcers
- Genital discharge
- Venereal warts
- Herpes progenitalis
- Balanoposthitis
- HIV

LEPROSY

- All types of leprosy cases (TT, BT,BB,BL,LL)
- ENL
- Type I reaction
- Histoid leprosy
- Trophic ulcer and deformities in Leprosy

SHORT CASES

- Neurofibromatosis
- Tubrous sclerosis
- Epidermal Naevi
- Haemangioma
- Sebaceous Naevi
- Alopecia areata and its variants
- Superficial fungal infections
- Benign tumors of skin
- BCC
- Lichen planus and lichenoid reactions
- Other papulosquamous disorders
- Darier's disease
- Pityriasis rubra pilaris
- Pityriasis rosea
- Erythema multiforme
- Epidermolysis Bullosa
- Pyoderma gangrenosum
- Acute febrile neutrophilic dermatoses
- Lymphomas and pseudolymphomas
- Eczemas
- Vasculitis
- Porphyria
- Xanthomas
- Amyloidosis
- DLE
- Morphoea
- Scleredema
- Mycetoma
- Varicella Zoster infection
- Molluscum contagiosum
- Scabies/ectoparasites
- Xeroderma pigmentosum
- Acne and related disorders
- Rosacea
- Lymphangioma
- Porokeratosis

- Granuloma annulare
- Angiokeratoma
- Urticaria pigmentosa
- Pigmentary disorders (Melasma/ Vitiligo etc.)

SAMPLE QUESTIONS FOR THEORY PAPER

- Syndromic approach to genital ulcer/genital discharge
- Histoid Leprosy
- Vaccines in Leprosy
- HIV and Skin
- Primary Neuritic Leprosy
- Reversal reactions in leprosy
- HIV and vaccines
- Cutaneous bacterial flora
- Kaposi's sarcoma
- Inguinal Bubo in STDs
- Tacrolimus
- Bacillary angiomatosis
- SLE and Pregnancy
- Desmosome-Tonofilament complex
- Pilosebaceous Unit
- Skin as a barrier
- Cytodiagnosis
- Pathogenesis of psoriasis
- Wood's lamp
- Lasers in dermatology
- Mechanism of contact dermatitis
- Chlamydia trachomatis
- Paraneoplastic pemphigus
- Antioxidants
- Histopthology of-mycosis fungoides
- Porphyrin -Haem synthesis
- Diabetic dermopathy
- Management of severe pruritus
- Diagnosis and treatment of PKDL
- Raynaud's phenomenon
- Langerhans cells
- Melanogenesis
- Process of Keratinization
- Structure of nail
- Lichenoid eruption
- Scleroderma

- Hirsutism
- Serology of Leprosy
- Immunofluorescence in dermatology
- Skin failure
- Newer Antihistamines
- Newer anti leprosy drugs
- HAART therapy in AIDS
- Newer antifungal drugs
- Sunscreens
- Reiter's disease
- Systemic complications in leprosy
- Skin manifestations of thyroid disorders
- Immunomodulators in dermatology
- PCR in dermatology
- Genital ulcer disease
- Secondary syphilis
- Gonococcal urethritis
- H. Ducreyi
- LGV

BOOKS AND JOURNALS WHICH THE CANDIDATE MUST READ

Books

Rook's Text book of Dermatology
Dermatology in internal medicine by Fitz Patrick
Pediatric dermatology - Harper
IADVL text book of Dermatology
Text book of Sexually Transmited diseases by King Holmes
Text book of STD/Aids –V K Sharma
Text book of STD -Bhushan Kumar
Leprosy by Ridley Jopling
Leprosy –Hastings
IAL text book of Leprosy
Dermatosurgery and cosmetology by Sawant
Dermatological surgery by Katz
Manual of dermatological therapeutics –Arndt
Dermatological therapy -polano
Dermatological drug therapy- wolverton

Journals

Indian Journal of Dermatology, Venereology & Leprology
Indian Journal of Leprosy

Indian Journal of Sexually Transmitted diseases
International Journal of Dermatology
International Journal of Leprosy
Leprosy review
Archives of Dermatology
British Journal of Dermatology
Journal of investigative dermatology
Journal of cosmetic and laser therapy

GUIDELINES FOR WRITING THESIS

Research shall form an integral part of the education programme of all candidates. The Basic aim of requiring the candidates to write a thesis is to familiarize him/her with research methodology in general as well as specific to dermatology. The members of the faculty guiding the thesis work for the candidate shall ensure that the subject matter selected for the thesis is **original and practical.**

Guidelines

I. The thesis may be normally restricted to the size to 100 pages. To achieve this, following points may be kept in view;
   (i) Only contemporary and relevant literature may be reviewed.
   (ii) The techniques may not be described in detail unless any modification/innovations of the standard techniques are used and reference may be given.
   (iii) Illustrative material may be restricted.
   (iv) Since most of the difficulties faced by the residents relate to the work in clinical subject or clinically oriented laboratory subjects the following steps are suggested:

- For prospective study, as far as possible, the number of cases should be such that adequate material, judged from the hospital attendance, will be available and the candidate will be able to collect the case material within a period of 6-12 months so that he/she is in a position to complete the work within the stipulated time.

- The objectives of the study should be well defined.

- As far as possible, only clinical or laboratory data of investigations of patients or such other material easily accessible in the existing facilities should be used for the study.

- Technical assistance, wherever necessary, may be provided by the department concerned. The resident of one speciality taking up some problem related to some other speciality should have some basic knowledge about the subject and he/she should be able to perform the investigations independently, wherever some specialised laboratory investigations are required a co-guide may be co-opted from the concerned investigative department, the quantum of laboratory work to be carried out by the candidate should be decided by the guide and co-guide by mutual consultation.

- The Clinical residents may not ordinarily be expected to undertake experimental work or clinical work involving new techniques, not hitherto perfected or the use of chemicals or radio isotopes not readily available. They should however, be free to enlarge the scope of their studies or undertake experimental work on their own initiative but all such studies should be feasible within the existing facilities.
- The residents should be able to use freely the surgical pathology/autopsy data if it is restricted to diagnosis only, if however, detailed historic data are required the resident will have to study the cases himself with the help of the guide/co-guide. The same will apply in case of clinical data.

- Statistical methods used for analysis should be described in detail.

Guidelines for Writing of Thesis

Title - Should be brief, clear and focus on the relevance of the topic.

Introduction – Should state the purpose of study, mention lacunae in current knowledge and enunciate the Hypothesis, if any.

Objectives-General & Specific

Review of Literature – Should be relevant, complete and current to date.

Material and Methods- Should include the type of study (prospective, retrospective, controlled double blind) details of material & experimental design procedure used for data collection & statistical methods employed; statement of limitations ethical issues involved.

Observations– Should be Organized in readily identifiable sections having correct analysis of data be presented in appropriate charts, tables, graphs &

diagram etc. These should be statistically interpreted.

Discussion- Observations of the study should be discussed and compared with other research studies. The discussion should highlight original findings and should also include suggestion for future.

Summary and Conclusion

Bibliography - Should be correctly arranged in Vancouver pattern.

Appendix—All tools used for data collection such as questionnaire, interview schedules, observation check lists etc should be put in the annexure.

PART IV

Venereology and Leprosy and Recent Advances

Essays:

1. Classify antiretroviral drugs.Discuss the adverse effects of these drugs

Short essays:

2. Leprosy vaccines
3. Histoid leprosy
4. Dapsone resistance
5. Bone involvement in leprosy
6. Circinate balanitis
7. Kaposi's sarcoma
8. Syphilis in cognito

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