



YENEPOYA UNIVERSITY

Deralakatte, Mangaluru -575018

REGULATIONS AND CURRICULUM GOVERNING

**POSTGRADUATE PROGRAM (MD) IN
DERMATOLOGY, VENEROLOGY
AND LEPROSY (DVL)**

(CURRICULUM - EFFECTIVE FROM 2011-12)

ATTESTED

A handwritten signature in green ink, appearing to be 'G.S.', is written over the word 'ATTESTED'.

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21.01.2012

NOTIFICATION

Sub: Syllabus for the 3 year MD in Dermatology, Venereology & Leprosy (DVL)
Ref: Agenda No. 4 of the minutes of the meeting of the 8th Academic Council
held on 13.01.2012

The syllabus for the 3 year postgraduate course M.D.-Dermatology, Venereology & Leprosy (DVL) as proposed by the Board of Studies, Dept. of Dermatology, Venereology & Leprosy (DVL) recommended by the Faculty of Medicine and approved by the Academic Council and Board of Management at their meetings held on 13.01.2012 is hereby notified for implementation.

S. S. S. S.
REGISTRAR
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Copy to:

- The Principal, YMC
- HoD, Dept. of Dermatology, Venereology & Leprosy (DVL)
- Controller of Examinations
- ✓ Academic Section

M.D. Dermatology Venereology & Leprosy

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The infrastructure and faculty shall be as per Medical Council of India regulations.

1. Goal

The goal of MD course in Dermatology, Venereology and Leprosy (DVL) is to produce a competent dermatologist who:

1. Recognizes the health needs of patients and carries out professional obligations in keeping with principles of National Health Policy and professional ethics;
2. Has acquired the competencies pertaining to dermatology and allied subjects that are required to be practiced in the community and other health care system;
3. Has acquired skills of communicating with the patient, family community;
4. Is aware of the contemporary advances and developments in medical sciences as related to dermatology, STD (venereal diseases) & leprosy;
5. Is oriented to principles of research methodology and publications;
6. Has acquired skills in training medical and paramedical professionals.

2. Objectives

At completion of stipulated MD course in Dermatology, Venereology and Leprosy (DVL), the student should be able to

1. Recognize the key importance of health needs of Skin, STD & leprosy in the context of the priority of the country;
2. Practice the specialty with highest principles of professional ethics;
3. Identify social, economic, environmental, biological and emotional determinants of patients, and institute diagnostic, therapeutic, rehabilitative, preventive and promotive measures to provide holistic care to patients;
4. Take detailed history, perform complete physical examination including dermatological examination & make clinical diagnosis or differential diagnosis;
5. Perform relevant investigative procedures that could be office based or clinical laboratory based
6. To perform therapeutic procedures relevant to the field
7. Interpret important imaging and laboratory results, or to obtain assistance from the relevant specialties for the benefit of the patient at large.
8. Diagnose illness based on the analysis of history, physical examination and investigative work up along with inputs from the other specialties;

9. Plan and deliver comprehensive treatment for illness using principles of rational drug therapy and other therapeutic modalities;
10. Plan and advise measures for the prevention of the diseases and disabilities;
11. Plan rehabilitation of patient suffering from chronic illness and handicap, and those with special needs;
12. Manage dermatological emergencies efficiently;
13. Demonstrate skills in documentation of case details, and of morbidity and mortality data relevant to the assigned situation;
14. Recognize the emotional and behavioral characteristics of patients and keep these fundamental attributes in focus while dealing with them;
15. Demonstrate empathy and humane approach towards patients and their families;
16. Demonstrate communication skills in explaining management and prognosis,
17. Provide counseling and health education messages to patients, families and communities;

18. Use appropriate learning resources and critically analyze relevant published literature in order to practice evidence-based science;
19. Demonstrate competence in basic concepts of research methodology and epidemiology ;
20. Facilitate learning of medical/nursing students, practicing physicians, paramedical health workers and other providers as a teacher-trainer;
21. Implementation of national health programmes, especially leprosy, STD & AIDS effectively and responsibly ;
22. Function as a productive member of a team engaged in health care, research and education;

3. Syllabus

General Guidelines:

During the training period, efforts should always be made that adequate time is spent in discussing health problems of public health importance in the country.

Theory:

Approach to Important Clinical Problems & disorders (Definition, epidemiology, etio-pathogenesis, presentation, complications, differential diagnosis and treatment)

Anatomy, embryogenesis & functions of skin

Diagnosis & Histopathology

Molecular biology

Inflammation & clinical immunology

Genetics, genodermatosis

Pruritus:

Pathophysiology, factors affecting, types & management

Dermatitis and Eczemas:

Acute, subacute & chronic eczema

Endogenous & Exogenous dermatitis: atopic dermatitis, contact dermatitis- irritant & allergic, stasis eczema, lichenification & erythroderma

Infections:

Bacterial; Gram +ve (impetigo, cellulitis, ecthyma, erysipelas, SSSS, TSS, Anthrax) & G-ve infections, Anaerobic infections, Rickettsial Infections

Viral; Herpes virus, human papilloma virus, Hemorrhagic fevers, Pityriasis rosea

Mycobacterial; Cutaneous TB- typical & atypical, MDT

Mycology; detailed diagnosis, superficial, subcutaneous & deep mycoses

Parasitic, protozoal & arthropodal infection/infestations; Scabies, Larva migrans, Pediculosis, Filariasis, Leishmaniasis

Leprosy:

Detailed bacteriology, immunology, classification, diagnosis, treatment, reactions, rehabilitation, experimental leprosy, vaccines, NLEP

Sexually Transmitted Diseases:

Syphilis, gonorrhoea, NGU, donovanosis, chancroid, LGV, Herpes genitalis, Viral warts- microbiology, diagnosis, treatment & prevention

HIV & AIDS- Virology, cutaneous manifestations, systemic manifestations including HIV & TB, Laboratory diagnosis & management, ART, Prophylaxis, Prevention, Syndromic management, NACO guidelines

Cutaneous photobiology:

Polymorphic light eruption, actinic prurigo, solar urticaria, chronic actinic dermatitis

Disorders of keratinization:

Ichthyosis- congenital & acquired, erythrokeratoderma, Pityriasis Rubra Pilaris, Darier's Disease

Psoriasis, lichen planus, para-psoriasis

Disorders of pigmentation:

Melanogenesis, Hypermelanosis, hypomelanosis, melanocytic nevi,

melanoma skin cancer

Tumours of skin:

Malignant: Squamous Cell Carcinoma, Basal Cell Carcinoma, Melanoma

Benign: epidermal nevus, sebaceous nevus, Actinic keratosis, Bowen's disease, Seborrheic keratosis, Keratoacanthoma, Pilomatricoma, Cylindroma, Syringoma, Paget's disease

Bullous disorders:

Congenital – Epidermolysis bullosa - simplex, junctional & dystrophic

Immunobullous- Pemphigus & its variants, bullous pemphigoid, cicatricial pemphigoid, DH - Basis , clinical presentation, treatment and pulse therapy

Disorders of sebaceous & sweat glands:

Acne & its variants, sebaceous gland disorders, rosacea, hyperhidrosis,

Miliaria

Connective tissue disorders:

Lupus erythematosus- DLE, SLE, systemic sclerosis, MCTD

Dermatomyositis, graft v/s host disease

Urticaria:

Types, urticarial vasculitis, angioedema, mastocytosis

Purpura:

Classification, diagnosis & management

Vasculitis & Neutrophilic Reactions:

Small, medium & large vessel vasculitis, Sweet's syndrome, pyoderma gangrenosum, Erythema nodosum, Behcet's disease

Arterial, venous & lymphatic disorders:

Arterial & peripheral ischemic disorders, venous thrombosis & ulceration, lymphedema

Psychocutaneous disorders:

Trichotillomania, dermatitis artefacta

Immunological diseases:

Sarcoidosis

Systemic diseases & skin:

Cardiac, renal, GIT, markers of internal malignancy, nervous system

Ages of men & other dermatoses:

Pediatric Dermatology, Neonatal skin disorders, Skin disorders of other ages

Nail:

Structure & function of nail

Disorders of nail development- Anonychia, pachyonychia

Nail infections- Paronychia, Onychomycosis

Dermatoses affecting nails- Psoriasis, Darier's disease, lichen planus, Twenty nail dystrophy

Nail tumours- Koelan tumour

Nail surgery- nail biopsy, surgery for in growing nail

Hair:

Structure & cycle

Alopecia- Alopecia areata, androgenetic alopecia, cicatricial alopecia

Disturbances of hair cycle-Telogen effluvium

Scaling disorders of scalp

Hypertrichosis

Hirsutism

Mucosa:

Oral

Peutz-Jegher's syndrome, acrodermatitis enteropathica, aphthous stomatitis, Behcet's disease, lichen planus, pemphigus, lupus erythematosus, herpes simplex, candidiasis, hairy leukoplakia / oral lesion in systemic disorder, Genital Non-venereal lesions

Miscellaneous:

Skin & eyes; Seborrhoeic blepharitis, cicatricial pemphigoid, EM, TEN, HSV, Reiter's disease

Skin & ears; Granulomatous disorders, perichondritis, otitis externa

Breast, perianal & umbilical disorders: Gynecomastia, cracked nipples, lupus panniculitis, Mondor's disease, pruritus ani, hidradenitis suppurativa

Dermoscopy (Updated in 2013)

Principles and technique of Dermoscopy and Videodermoscopy

Dermoscopy in pigmentary disorders

Dermoscopy in inflammatory disorders

Trichoscopy

Treatment

Principles

Topical therapy

Systemic therapy

Drug reactions including EM, SJS/TEN, DHS, maculopapular rash, FDE.

Recent Advances

LASER & its applications

Dermatosurgery & Cosmetology: Punch grafting, suction blister grafting, chemical peels, cryotherapy, radiofrequency, chemical cautery

Dermoscopy: In melanoma, non-melanoma skin cancers and other dermatological conditions.

Practical:

Long cases

Vesiculobullous diseases

Connective tissue diseases

Eczema/dermatitis

Psoriasis

Drug reactions

Erythroderma

Leprosy

Reactions in leprosy

Sexually Transmitted diseases

AIDS

Short Cases/spotters

Disorders of Keratinization

Genetics & Genodermatosis

Diseases of hair

Diseases of nail

Diseases of mucosa

Diseases of sebaceous & sweat glands

Dermatitis, eczema

Infections- viral, bacterial, mycobacterial, fungal

Disorders of pigmentation

Drug Reactions

Photodermatosis

Connective tissue diseases

Immunological diseases

Vasculitis

Leprosy

Sexually Transmitted diseases

Histopathology slides

Grand viva - voce including drugs, X-rays, Equipment & thesis discussion

Skills:

History taking including psychosocial history, general & systemic examination,

Dermatological examination - skin & its appendages, mucosa.

Bedside procedures:

Monitoring skills: vitals recording, blood sampling.

Therapeutic & investigative skills: Dressing, administration of fluids & drugs, pulse therapy, skin & mucosal biopsy, abscess drainage and basic principles of rehabilitation

Bedside investigations; Tzanck test, Gram staining, Slit skin smear, AFB Staining, KOH Mount, Woods lamp examination, dark ground illumination (DGI),

Microscopic examination, Giemsa stain (tissue smear).

Interpretation of X-rays of chest, abdomen & ECG.

Understanding of Histopathology, Immunopathology & Immunohistochemistry

Community and Social Dermatology:

National programmes – TB, leprosy, STD, AIDS. Prevention of sexually transmitted diseases, contraception, government and non-government support services.

General principles of prevention and control of infectious diseases, investigation of and outbreak in a community.

4. Teaching Program

General Principles;

Acquisition of practical competencies being the keystone of postgraduate medical education, postgraduate training is skills oriented.

Learning in postgraduate program is essentially self-directed and primarily emanating from clinical and academic work. The formal sessions are merely meant to supplement this core effort.

Teaching Sessions and Schedules

In addition to bedside teaching rounds to be carried by consultants daily, in the department there should be daily hourly sessions of formal teaching per week. Presentation in central session whenever requested should be done. All sessions should be attended and moderated by the faculty members. All teaching programs should be interactive. All Post-graduates should attend the sessions.

The suggested teaching schedule will be as follows:

Case discussions: Twice a week

Seminars; Once a week

Journal clubs; once a week

Histopathology session; once a month

Procedures - Surgical/Cosmetic; Supervision by trained faculty

Laboratory procedures; staining, mounts, trichogram etc.

CME, workshops, conferences attendances

5. Postings

Wards: Everyday

OPD: Everyday

Minor O.T/ Procedure room: On rotation twice a week (1 to 2 hours)

Special clinics: On rotation, once a week (1 to 2 hours)

Special training at other institutions; if desirable depending on the need

Call duties, Night duties, Causality/emergency duties, camps; on rotation

6. Thesis

Every candidate shall work on an assigned research project under the guidance of a recognized Postgraduates Teacher, the project shall be written and submitted in the form of a thesis.

Every candidate shall submit thesis plan/protocol to the University after obtaining clearances from the board of study and institutional ethics committee within the time frame specified by the university from the date of admission.

Thesis shall be submitted to the University six months before the commencement of theory examination or as per the university norms.

Identify a relevant research question: (ii) conduct a critical review of literature; (iii) formulate a hypothesis; (iv) determine the most suitable study design: (V) state

the objectives of the study: (vi) prepare a study protocol; (vii) undertake a study according to the protocol; (viii) analyze and interpret research data, and draw conclusions; (ix) write a research paper.

7. Assessment

All the PG residents has to be assessed daily for their academic activities and also Periodically

General Principles

The assessment has to be valid, objective, and reliable.

It should cover cognitive, psychomotor and affective domains.

Formative, continuing and summative (final) assessment to be conducted in theory as well as practical/clinical, in addition, thesis should also be assessed separately.

Formative Assessment

The formative assessment is to be continuous as well as end-of-term. The former has to be based on the feedback from the senior residents and the consultants concerned. End-of-term assessment should be held at the end of each semester (up to the 5th semester). Formative assessment will not count towards pass/fail at the end of the program, but will provide feedback to the candidate.

Internal Assessment

It shall be carried out periodically by theory and clinical examination at least once in a year.

1. Personal attributes:

Behavior and Emotional Stability: Dependable, disciplined, dedicated, stable in emergency situations, shows positive approach.

Motivation and Initiative: Takes on responsibility, innovative, enterprising, does not shirk duties or leave any work pending.

Honesty and Integrity: Truthful, admits mistakes, does not cook up information, has ethical conduct, exhibits good moral values, loyal to the institution.

Interpersonal Skills and Leadership Quality: Has compassionate attitude towards patients and attendants, gets on well with colleagues and paramedical staff, is respectful to seniors, has good communication skills.

2. Clinical Work:

Availability: Punctual, available continuously on duty, responds promptly on calls and takes proper permission for leave.

Diligence: Dedicated, hardworking, does not shirk duties, leaves no work pending, does not sit idle, competent in clinical case work up and management.

Academic ability: Intelligent, shows sound knowledge and skills, participates adequately in academic activities, and performs well in oral presentation and departmental tests.

Clinical Performance: Proficient in clinical presentations and case discussion during rounds and OPD work up. Preparing Documents of the case history/examination and progress notes in the file (daily notes, round discussion, investigations and management) Skill of performing bed side procedures and handling emergencies.

3. Academic Activity: Performance during presentation at Journal club/ Seminar/ Case discussion/Stat meeting and other academic sessions. Proficiency in skills as mentioned in job responsibilities.

4. End of term theory examination; conducted at end of 1st, 2nd year and after 2 years 9 months

5. End of term practical/oral examinations after 2 years 9 months. Marks for **personal attributes** and **clinical work** should be given annually by all the consultants under whom the resident was posted during the year. Average of the three years should be put as the final marks out of 20.

Marks for academic activity should be given by the all consultants who have attended the session presented by the resident.

The Internal assessment should be presented to the Board of examiners for due consideration at the time of Final Examinations.

A. Theory Examination (Total =400)

Paper 1: Basic sciences as related to Dermatology, Venereology & Leprosy (100 marks)

Paper 2: Principles & practice of Dermatology, Venereology & Leprosy (100 marks)

Paper 3: Leprosy & Venereology (100 marks)

Paper 4: Recent advances in Dermatology, Leprosy & Venereology and General Medicine as related to Dermatology (100 marks)

Total 400

B. Practical & (Total=200)

Two external and two internal examiners to conduct the examinations;

Clinical Spotters 10 (70 marks)

Long case 01 (80 marks)

Short Cases 02 (50 marks)

Total 200

C. Viva-voce Examination: 100 marks

Grand viva voce including thesis discussion, drugs, equipment (60 marks)

Histopathology (20 marks)

Pedagogue (20 marks)

Total 100

8. Job Responsibilities

During first year, the student works under direct supervision of the 2/3 year senior resident or faculties. She/he is responsible for taking detailed history, examination of patients as per the standard protocols and send for appropriate investigations as advised. Initially all procedures are to be observed and then done under supervision of faculties. Students will be involved in the teaching programs as designed from the first month itself and will present seminars/journal clubs or any other programs under the guidance of a moderator. Student is also involved in the undergraduate teaching once the faculties feel that he/she is capable of doing so. A suitable topic for the dissertation work is chosen in consultation with all faculties and a guide is provided. It has to be approved by the board of study and ethical committee with in the first 6 months of joining. Collection of material/subjects will begin after the approvals.

Postgraduate students to be posted to the departments of Pathology and Microbiology for a total of 1 week (Amended on 27/05/2019)

In 2nd year, resident to be posted in special clinics, regular U.G. teaching, will perform procedures, will continue the dissertation work apart from being involved in regular teaching postgraduate teaching programs and patient management.

Students are posted for an observership in Dermatotomy and cosmetology for 15 days at Bangalore medical college and research institute. (Amended on 27/05/2019)

In 3rd year, resident should also be encouraged to make independent decisions in the diagnosis and management of cases. She/he is also to be involved more aggressively in teaching and performing procedures. He/she will help and guide the first year students. Will complete the collection of materials for dissertation, latest literature review, statistical analysis and preparation of the manuscripts. Dissertation work is submitted at least 6 months prior to the completion of the course.

9. Suggested Books and Journals

Books:

1. IADVL textbook and atlas of dermatology; RG Valia
2. Rook's textbook of dermatology; RH Champion
3. Fitzpatrick's Dermatology in General Medicine; Klaus Wolff
4. Dermatology; Jean L Bologna, Joseph L Jorizzo, Ronald P Rapini
5. Sexually Transmitted Diseases; King Holmes, P. Sparling,
6. Andrew's Disease of skin clinical dermatology; William D James
7. Handbook of leprosy; W H Joplings and A C McDougall
8. Lever's Histopathology of the Skin. Elder DE,
9. Pediatric dermatology; Editors;Lawrence A Schachner ,Ronald c Hansen
10. Textbook of Dermatotomy and cosmetology; Satish S Savant
11. Dermoscopy and Trichoscopy in Diseases of the Brown Skin Atlas and Short Text; Uday S Khopkar.

Journals:

1. Indian Journal of Dermatology, Venereology & Leprology
2. Indian Journal of STD & AIDS
3. Indian Journal of Leprosy
4. Journal of American Academy of Dermatology
5. International Journal of Dermatology
6. Dermatology Clinics
7. Indian Journal of Dermatology
8. British Journal of Dermatology
9. Leprosy review
10. Archives of dermatology

10. Model Test Papers

MODEL QUESTION PAPER

MD (Dermatology, Venereology and Leprosy (DVL)

MODEL QUESTION PAPER -I:

MD (Dermatology, Venereology and Leprosy (DVL)

Basic Sciences as related to Dermatology, STD & Leprosy

Max. Marks: 100 Time: 3 hrs

Attempt ALL questions

Answer each question & its parts in SEQUENTIAL ORDER

ALL questions carry equal marks

Illustrate your answer with SUITABLE DIAGRAMS

1. Discuss the ultrastructure of Dermo-Epidermal Junction.
2. Langerhan's cells
3. Dyskeratosis
4. Explain role of interferons in dermatology
5. Collagen
6. Draw HIV structure
7. Give a note on immunology of leprosy
8. Explain pathogenesis of psoriasis
9. Antigenic determinants of Mycobacterium leprae
10. Outline role of PCR in skin diseases

MODEL QUESTION PAPER -II:

MD (Dermatology, Venereology and Leprosy (DVL))

Principles & Practice as related to Dermatology, STD & Leprosy

Max. Marks: 100 Time: 3 hrs

Attempt ALL questions

Answer each question & its parts in SEQUENTIAL ORDER

ALL questions carry equal marks

Illustrate your answer with SUITABLE DIAGRAMS

1. Discuss etiopathogenesis of contact dermatitis
2. Discuss oral lichen planus
3. Give an account of biological therapy for psoriasis
4. Explain the causes of cicatricial alopecia
5. Parapsoriasis
6. Write a short note on Sezary Syndrome
7. Discuss hyperhidrosis & its management
8. What is the impact of HIV on STDs
9. Naevus of OTA
10. Elaborate Behcet's syndrome

MODEL QUESTION PAPER - III :

MD (Dermatology, Venereology and Leprosy (DVL))

Leprosy and Venereology

Max. Marks: 100 Time: 3 hrs

Attempt ALL questions

Answer each question & its parts in SEQUENTIAL ORDER

ALL questions carry equal marks

Illustrate your answer with SUITABLE DIAGRAMS

1. Enumerate goals of National leprosy eradication programme
2. Enumerate experimental animals in Leprosy
3. Drug resistant leprosy
4. Bone changes in leprosy
5. Explain bacterial vaginosis
6. Mention a note on HPV vaccines
7. Discuss serology of Syphilis
8. Neurosyphilis
9. Newer antiretroviral drugs
10. Complications of urethritis

MODEL QUESTION PAPER IV:

MD (Dermatology, Venereology and Leprosy (DVL))

Recent Advances in Dermatology, STD & Leprosy and General Medicine as related to Dermatology

Max. Marks: 100 Time: 3 hrs

Attempt ALL questions

Answer each question & its parts in SEQUENTIAL ORDER

ALL questions carry equal marks

Illustrate your answer with SUITABLE DIAGRAMS

1. Discuss the relationship of Leprosy & HIV
2. Newer drugs in leprosy
3. Write note on infliximab
4. UVA1 phototherapy
5. Recent advances in pathogenesis of Atopic Eczema
6. Mycophenolate Mofetil in dermatology
7. Direct immunofluorescence in dermatology
8. Enumerate AIDS defining illnesses
9. Outline the treatment of acne scars
10. Cutaneous manifestations of End stage renal diseases