## DPU

Dr. D. Y. PATIL VIDYAPEETH, PUNE (Deemed to be University)

Syllabus for PG Medical Specialties

2014 - 15 (Amended / Revised upto July 2019)

#### Dr. D.Y. PATIL VIDYAPEETH, PUNE

(Deemed to be University)

(Re-accredited by NAAC with a CGPA of 3.62 on a four point scale at 'A' Grade) (An ISO 9001 : 2015 Certified University)

Registrar

Ref. No. : DPU/875-Vii/20)9 : 11/09/2019

#### NOTIFICATION

Whereas in pursuance of the following decisions taken by the Board of Management, it is hereby notified to all concerned that the "Syllabus for PG Medical and Surgical Specialties - 2014-15" is revised upto July 2019 and hereby published.

- Changes in syllabus for UG and PG in General Medicine, Pulmonary Medicine and General Surgery vide Resolution No. BM-07-(iii)-4 dated 28th January, 2014.
- Updation in UG and PG syllabus of General Medicine, Obstetrics & Gynecology, Orthopedics, Anaesthesiology, ENT and Ophthalmology vide Resolution No. BM-04(i)-15, dated 31st March, 2015.
- Modifications in pattern of PG practical examinations for MD (General Medicine), MD (Pediatrics), MS (General Surgery), and MS (OBGY) vide Resolution No. BM-26(iv)-15, dated 29th December, 2015.
- Updation in PG syllabus in Radio-Diagnosis subject vide Resolution No. BM-26(vii)-15, dated 29th December, 2015.
- Introduction of Bioethical aspects in various chapters of all subjects vide Resolution No. BM-26(xi)-15, dated 29th December, 2015
- > Partial Modifications in Pattern of PG Practical Examinations for MD (General Medicine) and MS (General Surgery) vide Resolution No. BM-17(vii)-16, dated 22<sup>nd</sup> September, 2016.
- Modifications in the syllabus of MD (Emergency Medicine) vide Resolution No. BM-35(iv)-18, dated 12th October, 2018.
- Changes in teaching and assessment of MS (Ophthalmology), vide Resolution No. BM-35(v)-18, dated 12th October, 2018.
- Changes in the practical examination pattern of M.S. (Orthopedics) vide Resolution No. BM-35(vi)-18, dated 12th October, 2018.
- > Change in practical examination pattern of MD (Dermatology) vide Resolution No.BM-35(vii)-18, dated 12th October, 2018.
- Graduate Attributes, Programme Outcomes (POs), Course Outcomes (Cos) and gap analysis for all courses of UG and PG Programmes for Para-Clinical and Surgical Subjects vide Resolution No. BM-10(vii)-19 dated, 12th April, 2019.
- Interdisciplinary subjects (for Surgical Subjects) of M.B.B.S, M.D./M.S. and Super-specialty (D.M./M.Ch.) Programs under the Faculty of Medicine vide Resolution No. BM-10(viii) dated 12<sup>th</sup> April, 2019.
- > Changes in syllabus of MD (General Medicine) and MD (Psychiatry) vide Resolution No. BM-27(iv)-19 dated 30th July, 2019.
- Modifications in MD (Respiratory Medicine) Practical examination pattern vide Resolution No. BM-27(vii)-19 dated 30 July 019.

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PIMPRI PUNE-18.



- > Graduate Attributes, Programme Outcomes (POs), Course Outcomes (Cos) outcome analysis of Pos and Cos and mapping with objectives for all courses of UG and PG Programmes of Pre-Clinical and Medicine Subjects under the Faculty of Medicine vide Resolution No. BM-27(x)-19 dated 30th July, 2019.
- Interdisciplinary subjects (for Medicine Subjects) of M.B.B.S, M.D./M.S. and Super-specialty (D.M./M.Ch.) Programs under the Faculty of Medicine vide Resolution No. BM-27(xi) dated 30<sup>th</sup> July, 2019.

The Syllabus for PG Medical and Surgical Specialties - 2014-15" is Revised upto July 2019 will be useful to all the concerned. This will come into force with immediate effect.



(Dr. A. N. Suryakar) Registrar

Copy to:

- 1. PS to Chancellor for kind information of Hon'ble Chancellor, Dr. D. Y. Patil Vidyapeeth, Pune.

  2. PS to Vice Chancellor for kind information of Hon'ble Vice Chancellor,

  Dr. D. Y. P Dr. D. Y. Patil
- Vidyapeeth, Pune.

  3. The Dean, Dr. D. Y. Patil Medical College Hospital & Research Centre, Pimpri, Pune

  4. The Controller of Examinations, Dr. D. Y. Patil Vidyapeeth, Pune.
- 5. Director (IQAC), Dr. D. Y. Patil Vidyapeeth, Pune.
- 6. Web Master for uploading on Website.

## MAPPING OF PROGRAMME OUTCOMES [POs] AND COURSE OUTCOMES [COs] OF PG PROGRAMMES

No.	By the end of the programme, the Postgraduate will have / be:
PO 1	Knowledge and Skills
PO 2	Planning and problem solving abilities
PO 3	Communication
PO 4	Research Aptitude
PO 5	Professionalism and Ethics
PO 6	Leadership
PO 7	Societal Responsibilities
PO 8	Environment and Sustainability
PO 9	Lifelong Learner

#### MD DERMATOLOGY PROGRAMME

<b>Course Code</b>	Course Title
PGM 06	MD Dermatology

#### Course 1 (Subject Code)

CO No.	At the end of the course, the	Mapped Programme
	learner should be able to:	Outcomes
PGM06.1	Ability to take proper history	PO1,PO2,PO3,PO4,PO5,
PGM00.1	with examinations	PO6,PO7,PO8,PO9
PGM06.2	Knowledge of dermatological	PO1,PO2,PO3,PO4,PO5,
PGM00.2	diseases and its management	PO6,PO7,PO8,PO9
PGM06.3	Ability to do necessary	PO1,PO2,PO3,PO4,PO5,
PGM00.3	procedures	PO6,PO7,PO8,PO9
	Plan and advice measures for	PO1,PO2,PO3,PO4,PO5,
PGM06.4	prevention and rehabilitation of	PO6,PO7,PO8,PO9
	chronic patients.	
	Play the assigned role in	PO1,PO2,PO3,PO4,PO5,
PGM06.5	implementation of national	PO6,PO7,PO8,PO9
	health programme.	
	Should know research	PO1,PO2,PO3,PO4,PO5,
PGM06.6	methodology and ability to	PO6,PO7,PO8,PO9
	publish relevant data.	

# DERMATOLOGY, VENEROLOGY AND LEPROSY

## SYLLABUS FOR M.D. DERMATOLOGY, VENEREOLOGY AND LEPROSY COURSE

#### FIRST YEAR:

Basics as applicable to Dermatology, Venereology, Leprosy and HIV

- 1. Structure of skin
- 2. Development of skin
- 3. Keratinization of hair, skin and nails
- 4. Basic skin lesions
- 5. Functions of skin
- 6. Dermoepidermal junction
- 7. Cutaneous vasculature and microanatomy
- 8. Biology of hair follicles
- 9. Biology of sebaceous glands & lipids of the epidermis
- 10. Biology of sweat glands & thermoregulation
- 11. Biology of melanocytes
- 12. Biology of nails
- 13. Dermal connective tissue (collagen, elastins and other EMPs)
- 14. Cutaneous vascular responses
- 15. Mechanism of cutaneous wound healing
- 16. Cell structure and human genome (including chromosomal structure and epigenetics)
- 17. Molecular biology and serological and immunological testing in dermatology
- 18. Immunity
  - i. Innate immunity
  - ii. Adaptive immunity
  - iii. Humoral immunity
  - iv. Cytokines
  - v. Chemokines

- vi. Neutrophils
- vii. Eosinophils
- viii. Hypersensitivity reactions
- 19. Neurobiology of skin
- 20. Pathophysiology of pruritus
- 21. Skin microbiome (including of oral and genital mucosa)
- 22. Specimen collection, demonstration & speciation of superficial fungi
- 23. Basic pathological reaction patterns in the skin
- 24. Terms in histopathology
- 25. Stains and techniques in dermatopathology
- 26. Photobiology of skin
- 27. Cutaneous carcinogenesis
- 28. Facial anatomy
- 29. Arterial and venous supply of the lower limb
- 30. Wound dressings including compresses
- 31. Principles of skin surgery (tension lines, local anesthesia, biopsy techniques, suture materials and techniques of closure)
- 32. Serological and immunological testing
- 33. Genotyping
- 34. Instruments hand lens, Wood's lamp, centrifuge, dermoscope, biopsy punch, slide, scalpel, BP handle, needle, syringe
- 35. Basic bedside procedures KOH mount, Tzanck smear, slit skin smear for AFB, Gram's stain
- 36. Other procedures Radiofrequency, cryotherapy, biopsy, PRP, CROSS, dermaroller, subcision, paring, needling, intralesional steroid, comedone extraction

#### STDs (INCLUDING HIV):

- 37. Applied anatomy of male and female reproductive tract and human sexuality
- 38. Microflora of female genital tract across the ages and bacterial vaginosis
- 39. Structure, lifecycle and culture of agents causing bacterial STDs
- 40. Specimen collection and bedside procedures for STDs and direct visualization techniques for agents causing STDs (including subprepucial irrigation and bubo drainage)
- 41. Bubo and genital ulcer management
- 42. HIV structure, life cycle and pathogenesis of infections
- 43. Diagnosis of HIV (PCR, Blot techniques) and its monitoring

#### **LEPROSY:**

- 44. Bacteriology of leprosy
- 45. Immunogenetics of leprosy
- 46. Immunological aspects of leprosy
- 47. Biochemical aspects of leprosy
- 48. Pathogenesis of leprosy
- 49. Structure, electrophysiological and ultrasonographic studies of peripheral nerve
- 50. Pathomechanisms of nerve damage
- 51. Basic history taking and examination (peripheral nerve examination and sensory testing with SW filaments)

#### **ADDITIONAL TOPICS:**

- 52. The isomorphic phenomenon of Koebner
- 53. Nikolsky and related signs
- 54. Scaly signs in dermatology
- 55. Lines of Blaschko
- 56. Scars in dermatology clinical significance

- 57. Darier's sign
- 58. Dermatographism
- 59. Cutaneous signs in heritable disorders of the connective tissue
- 60. Counselling in dermatology
- 61. Improving diagnostic yield of punch biopsies of the skin
- 62. Basic digital photography in dermatology
- 63. Formulation of a research project
- 64. Sample size and power analysis in medical research
- 65. Observational studies
- 66. Guidelines for writing a research project synopsis or protocol
- 67. Registration and reporting of clinical trials
- 68. Scoring systems in dermatology
- 69. Basics of statistics for postgraduates
- 70. Searching PubMed and other databases
- 71. Online Mendelian Inheritance in Man (OMIM)
- 72. Online reprint request, citation index and impact factor
- 73. Dermoscopy of Biett's sign and differential diagnosis with annular maculopapular rash with scaling
- 74. Intralesional drug therapy in dermatology
- 75. Uses of hypodermic needle in dermatology
- 76. Appearances in clinical dermatology
- 77. Characteristic facies: an index of disease
- 78. Acantholysis revisited back to basics
- 79. "Pseudo" conditions in dermatology
- 80. Triads in dermatology
- 81. Named cells in dermatology
- 82. Linear lesions in dermatology
- 83. The art and science of medical poster presentation
- 84. Named bodies in dermatology

The above topics will be covered in the form of seminars and PowerPoint presentations and evaluated as weekly assessment.

### SECOND YEAR : CLINICAL ASPECTS SEMINARS

#### **INFLAMMATORY DERMATOSES -**

- 1. Reactive arthritis and pustular eruptions of palms and soles
- 2. Pityriasis rubra pilaris
- 3. Parapsoriasis and pityriasis lichenoides
- 4. Pityriasis rosea
- 5. Graft-versus-host disease
- 6. Eczematous disorders

#### **CONNECTIVE TISSUE DISORDERS -**

- 7. Sclerosing inflammatory dermatoses
- 8. Acquired perforating disorders
- 9. Sjogren syndrome
- 10. Genetic disorders of collagen, elastin and dermal matrix

## METABOLIC AND NUTRITIONAL DISEASES AFFECTING THE SKIN -

- 11. Cutaneous amyloidosis
- 12. Cutaneous mucinosis
- 13. Cutaneous porphyrias
- 14. Calcification of skin and subcutaneous tissues
- 15. Xanthomas, abnormalities of lipid metabolism and storage disorders
- 16. Cutaneous changes in nutritional diseases
- 17. Cutaneous changes in errors of amino acid metabolism
- 18. Systemic autoinflammatory diseases
- 19. Fabry disease

- 20. Lipoid proteinosis and heritable disorders of connective tissue
- 21. Inherited metabolic disorders

#### **VASCULAR DISORDERS -**

- 22. Purpura and pigmented purpuric dermatoses
- 23. Cutaneous vasculitis
- 24. Kawasaki disease
- 25. Cryoglobulinemia and cryofibrinogenemia
- 26. Vascular malformations
- 27. Dermatoses from disorders of veins and arteries
- 28. Ulceration from disorders of veins and arteries
- 29. Disorders of lymphatic vessels

#### DISORDERS OF SPECIFIC SITE, AGE AND SEX -

- 30. Dermatoses of the scalp
- 31. Dermatoses of male genitalia
- 32. Dermatoses of female genitalia
- 33. Neonatal, pediatric and adolescent dermatology
- 34. Dermatoses and hemangiomas of infancy
- 35. Skin changes and diseases in pregnancy
- 36. Aging of skin

#### **DISORDERS DUE TO ENVIRONMENT -**

- 37. Abnormal responses to UV radiation: idiopathic, immunological and photoexacerbated
- 38. Abnormal responses to UV radiation: induced by exogenous agents

#### GENETIC DISORDERS INVOLVING THE SKIN

- 39. Ectodermal dysplasias
- 40. Chromosomal disorders
- 41. Poikilodermatous syndromes

- 42. Disorders of genome instability and DNA repair
- 43. Syndromes with premature aging
- 44. Inherited immunodeficiency

#### SYSTEMIC DISEASES AND THE SKIN

- 45. Cutaneous markers of internal malignancy
- 46. Disorders of hematopoietic system
- 47. Skin and endocrine disorders
- 48. Skin and disorders of heart, respiratory system, digestive system, kidney and urinary tract and musculoskeletal system

#### INFECTIONS AND INFESTATIONS

- 49. Superficial cutaneous infections and pyodermas
- 50. Gram positive infections associated with toxin production
- 51. Non necrotizing infections cellulitis and erysipelas
- 52. Nectrotizing infections
- 53. Gram negative coccal and bacillary infectons
- 54. Skin in infective endocarditis, sepsis, septic shock, DIC
- 55. Bartonellosis
- 56. Tuberculosis and atypical bacterial infections
- 57. Actinomycosis, nocardiosis and actinomycetoma
- 58. Lyme borreliosis
- 59. Superficial fungal infections
- 60. Subcutaneous and deep fungal infections
- 61. Yeast infections
- 62. Deep fungal infections
- 63. Exanthematous viral diseases
- 64. Herpes simplex virus
- 65. Human papilloma virus

- 66. HTLV infection
- 67. Cutaneous manifestations of HIV infection
- 68. Rickettsiosisand ehrlichiosis
- 69. Leishmaniasis and protozoan infections
- 70. Helminthic infections

#### **DISCUSSIONS:**

- 71. Autosensitization dermatitis
- 72. Neutrophilic dermatoses
- 73. Granuloma annulare
- 74. Eosinophils in cutaneous disease
- 75. Urticaria
- 76. Angioedema and urticarial vasculitis
- 77. Mastocytosis
- 78. Behcet disease
- 79. Reactive inflammatory erythemas
- 80. Epidermal necrolysis (SJS, TEN)
- 81. Cutaneous drug reactions
- 82. Erythema elevatumdiutinum
- 83. Cutaneous necrotizing venulitis
- 84. Systemic necrotizing arteritis
- 85. Inherited acantholytic disorders
- 86. Vesiculobullous disorders paraneoplastic pemphigus, cicatricial pemphigoid, pemphigoid gestationis, inherited epidermolysis bullosa, epidermolysis bullosa acquisita
- 87. Lichen sclerosus
- 88. Anetoderma and other atrophic disorders
- 89. Ainhum and pseudoainhum

- 90. Scleredema and scleromyxedema
- 91. Relapsing polychondritis
- 92. Rheumatoid arthritis, rheumatic fever, gout
- 93. Mucocutaneous pain syndromes
- 94. Neurological conditions affecting the skin
- 95. Psychocutaneousdermatology
- 96. Cutaneous signs of drug abuse and physical abuse
- 97. Panniculitis
- 98. Lipodystrophy
- 99. Albinism
- 100. Genetic and acquired pigmentary disorders
- 101. Perioral dermatitis and hidradenitis suppurativa and other acquired disorders
- 102. Disorders of eccrine sweat glands (hyperhidrosis, anhidrosis and miliaria)
- 103. Disorders of apocrine sweat glands (bromhidrosis, chromhidrosis, Fox-Fordyce disease)
- 104. Keratosis pilaris and other inflammatory follicular keratotic syndromes
- 105. Hair and nail growth disorders
- 106. Raynaud phenomenon
- 107. Dermatoses of external ear, eye, eyelids and eyebrows
- 108. Dermatoses of oral cavity and lips
- 109. Cold injuries
- 110. Burns and heat injuries
- 111. Occupational dermatology
- 112. Skin problems in amputees
- 113. Corns and calluses

- 114. Sports dermatology
- 115. Decubitus ulcers
- 116. Cutaneous side effects of chemotherapy and radiotherapy
- 117. Dermatological manifestations of metal poisoning
- 118. Mechanical injuries to the skin
- 119. Skin in biologic and chemical attacks stings and bites
- 120. Epithelial precancerous lesions
- 121. Keratoacanthoma
- 122. Benign epithelial tumours, hamartomas and hyperplasias
- 123. Appendage tumours and hamartomas of skin
- 124. Merkel cell carcinoma
- 125. Mammary and extramammary Paget's disease
- 126. Benign neoplasias and hyperplasias of melanocytes
- 127. Atypical dysplastic melanocytic nevi
- 128. Cutaneous melanoma
- 129. Cutaneous lymphomas and pseudolymphomas
- 130. Malignant fibrous, fibrohistiocytic and histiocytic tumours of dermis
- 131. Vascular tumours
- 132. Neoplasias and hyperplasias of muscular and neural origin
- 133. Kaposi sarcoma and angiosarcoma
- 134. Neoplasms of subcutaneous fat
- 135. Cutaneous cysts
- 136. Soft tissue tumours and tumour-like conditions
- 137. Lymphocytic infiltrates
- 138. Skin cancer in immunocompromised patients
- 139. Cutaneous histiocytosis

#### **SECOND YEAR: LEPROSY:**

- 1. Approach to a patient with leprosy
- 2. Classification of leprosy
- 3. Immunology and molecular biology aspects
- 4. Histopathology and laboratory diagnosis (serological and molecular techniques)
- 5. Differential diagnosis of leprosy
- 6. Systemic and ocular leprosy
- 7. Leprosy in HIV
- 8. Leprosy in pregnancy and children
- 9. Neuritis
- 10. Leprosy reactions
- 11. Chemotherapy of leprosy (including WHO-MDT packs and newer drugs)
- 12. Immunotherapy of leprosy (chemoprophylaxis and vaccines)
- 13. Disabilities, deformities and rehabilitation
- 14. Relapse and drug resistance
- 15. Prevention, education and counselling in leprosy
- 16. NLEP and future challenges

#### SECOND YEAR: STD AND HIV:

- 1. Viral STDs including HIV, HPV, molluscum, EBV, etc
- 2. Bacterial STDs (syphilis, gonorrhoea, donovanosis, chancroid, NGU)
- 3. Protozoal infections
- 4. Fungal infections
- 5. Pelvic inflammatory disease, epididymitis
- 6. STDs and reproductive health and paediatrics
- 7. Control of STDs (vaccines, prevention, counselling and education)
- 8. Non venereal diseases
- 9. Syndromic management of STDs
- 10. National control programmes
- 11. Medicolegal aspects
- 12. Case assessment in HIV and pre ART care
- 13. Prophylaxis of opportunistic infections
- 14. ART and monitoring
- 15. ART in pregnancy and prevention of transmission (PPTCT)
- 16. HIV and associated coinfections
- 17. ART toxicity and treatment failure
- 18. Nutritional aspects and palliative care in HIV
- 19. NACO reporting system
- 20. Occupational exposure and post exposure prophylaxis

#### **SECOND YEAR: THERAPEUTICS:**

- 1. Principles of pharmacology-metabolism &drug delivery mechanisms
- 2. Systemic antibacterial agents
- 3. Systemic antiviral agents
- 4. Systemic antifungal agents
- 5. Systemic antiparasitic agents
- Systemic immunomodulatory agents systemic corticosteroids, methotrexate, azathioprine, mycophenolate mofetil, cyclosporine, cytotoxic agents, dapsone, antimalarial agents, systemic retinoids, interferons
- 7. Drugs with UV or visible light PUVA and NBUVB, extracorporeal photochemotherapy, photodynamic therapy
- 8. Biological therapeutics TNF inhibitors, interleukin 12/23 inhibitors, rituximab
- 9. Miscellaneous systemic antihistamines, vasoactive and antiplatelet drugs, antiandrogens, psychotropic drugs, intravenous immunoglobulins, systemic anticancer agents, drugs for skinternist, etc.
- 10. Topical antibacterial agents
- 11. Topical antifungal agents
- 12. Topical and intralesional antiviral agents
- 13. Topical antiparasitic agents
- 14. Topical immunomodulatory agents topical corticosteroids, topical retinoids, topical and intralesional chemotherapeutic agents, topical contact allergens, topical calcineurin inhibitors, topical vitamin D3
- 15. Miscellaneous topical agents sunscreens, therapeutic shampoos, chemical peels, agents for hyperkeratosis, cosmetic therapy, etc
- 16. Oral mucosal therapeutics

#### **SECOND YEAR: Additional topics**

- 1. Trichogram and phototrichogram
- 2. Polarized light microscopy
- 3. Techniques of immunofluorescence and their significance
- 4. Intradermal tests in dermatology: for infectious and non-infectious diseases
- 5. Oral and skin pathergy test
- 6. Lupus band test
- 7. Autologous serum skin test and tests for inducible urticarias
- 8. Scoring systems in acne vulgaris
- 9. Pap smear
- 10. Applications of Fitzpatrick skin typing
- 11. Group discussion: methodology to learn, teach and assess
- 12. Journal club: screen, select and evaluate
- 13. Mechanism of action and indications of nicotinamide in dermatology
- 14. Beta blockers in dermatology
- 15. Acyclovir v/s valacyclovir
- 16. Potassium iodide in dermatology
- 17. Levamisole
- 18. Flagellate dermatoses
- 19. Sparing phenomena in dermatology
- 20. Pregnancy and varicella infection
- 21. Nail pitting and onycholysis

All of the above mentioned topics of second year will be covered as grand rounds, seminars, discussions and journal club and will be evaluated as weekly assessment including short case presentations.

#### THIRD YEAR: Long and short case presentation

#### **LONG CASES:**

- 1. Psoriasis
- 2. Psoriatic arthritis
- 3. Exfoliative dermatitis
- 4. Pemphigus
- 5. Bullous pemphigoid
- 6. Linear IgA disease and CBDC
- 7. Dermatitis herpetiformis
- 8. Darier disease
- 9. Lupus erythematosus
- 10. Dermatomyositis
- 11. Scleroderma
- 12. Mixed connective tissue disease
- 13. Squamous cell carcinoma
- 14. Basal cell carcinoma

#### **SHORT CASES:**

- 15. Hansens's disease
- 16. Genital ulcer
- 17. Herpes genitalis
- 18. Basal cell nevus syndrome
- 19. Morphoea and scarring disorders
- 20. Vitiligo
- 21. Hypomelanoses and hypermelanoses

- 22. Acne vulgaris and acneiform eruptions
- 23. Rosacea
- 24. Hair disorders alopecia (cicatricial/non cicatricial)
- 25. Hamartoneoplastic syndromes (neurofibromatosis, tuberous sclerosis)
- 26. Herpes zoster and varicella
- 27. Molluscum contagiosum
- 28. Scabies and pediculosis
- 29. Lichen planus
- 30. Lichen nitidus
- 31. Ichthyoses
- 32. Inherited palmoplantar keratoderma
- 33. Porokeratosis
- 34. Acanthosis nigricans and acrochordon
- 35. Nevi
- 36. Keloid and hypertrophic scar

#### THIRD YEAR: Recent advances

- Genodermatoses: epidermolysis bullosa, DNA instability and congenital photosensitivity disorders, chromosomal disorders and familial multiple tumour syndromes, ichthyosis and ichthyosiform disorders, etc.
- 2. Infections: bacterial infections, viral infections, fungal infections
- 3. Allergic dermatoses: cutaneous adverse drug reactions, urticaria
- 4. Papulosquamous disorders: psoriasis, lichen planus, seborrheic dermatitis, pityriasis rosea
- Pigmentary disorders: vitiligo (pathogenesis, clinical evaluation, medical management), chemical leukoderma, melasma (etiopathogenesis, classification and scoring, management), periorbital hyperpigmentation, pigmented contact dermatitis, LPP

- and idiopathic eruptive macular pigmentation, systemic disorders with pigmentation abnormalities.
- 6. Pediatric dermatology: atopic dermatitis in children (allergic sensitivity), alopecia areata, hemangioma update, mTOR inhibitors in dermatology.
- 7. Vesiculobullous disorders: immunobullous disorders (updates in pathogenesis and diagnosis)
- 8. Updates in disorders of sweat and sebaceous glands (classification of rosacea)
- 9. Hair disorders: pathogenesis of hair disorders, diagnostic modalitites, treatment of alopecia areata, histopathologic evaluation, hair restoration techniques
- 10. Nail disorders: nail psoriasis, chronic paronychia and onychomycosis, mail tumours, etc.
- 11. Skin neoplasms: non melanoma skin cancers, melanoma, Kaposi sarcoma, Merkel cell cancer
- 12. Rheumatic dermatology: SLE, systemic sclerosis, dermatomyositis
- 13. Lasers in dermatology:
  - i. Basics of laser physics and skin tissue interactions
  - ii. Types of lsers
  - iii. Lasers for vascular conditions
  - iv. Lasers for pigmented conditions
  - v. Lasers for hair removal
  - vi. Lasers for non ablative rejuvenation
  - vii. Lasers for non ablative fractional rejuvenation
  - viii. Lasers for resurfacing
  - ix. Lasers for body contouring
  - x. Lasers for skin tightening
  - xi. Complications of use of lasers
  - xii. Medicolegal aspects

- 14. Dermatosurgery: tissue and cell grafting in vitiligo, scar revision, nail surgery
- 15. Dermoscopy, onychoscopy and trichoscopy
- 16. Newer tools (urticaria meter, nail braces)
- 17. Future tools (OCT, VSG)
- 18. Robotics in dermatology (for FUE, nanorobots)
- 19. Teledermatology and cyberdermatology
- 20. Nanotechnology
- 21. Stem cell therapy
- 22. Gene therapy
- 23. Skin banking
- 24. Tattooing
- 25. Iontophoresis, electrolysis
- 26. Skin resurfacing chemical peels, dermabrasion, lasers, facial rejuvenation
- 27. Sclerotherapy for varicose and telangiectatic veins
- 28. Botox and fillers
- 29. Tumescent liposuction
- 30. Implants for soft tissue augmentation
- 31. Hair transplant and alopecia reduction
- 32. Cryosurgery

#### **THIRD YEAR: Additional topics**

- 33. Silymarin in dermatological therapeutics
- 34. Patch testing in cutaneous adverse drug eruptions
- 35. In vivo antinuclear antibodies of the skin
- 36. Improvement of oral care in emergency setup especially in acute skin failure patients

The above topics will be covered in the form of discussion of journal articles and case presentation with weekly assessment

#### AIMS AND OBJECTIVES

#### **FIRST YEAR**

- 1. Acquire skills in dermatology, venereology and leprosy history taking and physical examination of patients
- 2. Be able to identify, classify and describe basic cutaneous lesions/findings
- 3. Be able to perform systemic examination relevant to dermatological conditions
- 4. Be able to perform common laboratory procedures such as KOH mount, Gram stain, Tzanck smear, AFB stain, Wood's lamp examination, etc.
- 5. Be able to ask for and interpret relevant investigations
- 6. To perform therapeutic procedures such as radiofrequency, cryotherapy, biopsy, subcision, paring, needling, intralesional steroid, comedone extraction, TCA application, etc.
- 7. Be competent in the history taking, examination, diagnostic procedures and treatment protocols WHO, CDC and NACO including syndromic approach to STD/ HIV
- 8. Be trained in history taking, examination including clinical examination and laboratory procedures and treatment protocols of Hansen's disease.

#### SECOND YEAR

- 1. Learn to manage dermatological emergencies like pemphigus, SJS, ENL, etc.
- 2. Perform advanced surgeries such as for acne scars, vitiligo, chemical peeling, fillers, hair transplant, botulinum toxin A injections, etc. with assistance of third year residents and faculty
- 3. To interpret histopathology as applicable to dermatology, venereology and leprosy
- 4. To be trained in recent advances in dermatology with assessment of journal articles

- 5. Care of leprosy including recent advances, WHO-MDT protocols of Hansen's disease, prevention and management of its deformities and counselling of leprosy patients and their caretakers
- 6. Recent advances in STDs and HIV, counselling of patients and their contacts, microbiological demonstration of agents causing STDs
- 7. Conduct microteaching sessions on clinical cases for undergraduate students

#### THIRD YEAR:

- 1. To be able to manage independently day-to-day outpatients and indoor patients
- 2. To be able to perform advanced procedures independently including lasers
- 3. To complete dissertation, assess interesting cases for case reports and poster presentation and to prepare paper for publication therefrom
- 4. Quick revision of important long cases, short cases, spots, histopathological slides, drugs, instruments and X-ray images as rehearsal for final MD examination

#### YEARLY ASSESSMENT FOR MD CANDIDATES

#### **FIRST YEAR:**

- Theory examination Basics as applicable to Dermatology, Venereology, Leprosy and HIV Max marks - 100, Duration - 3 hours
- 2. Practical examination case presentation of Hansen's disease and STDs

#### **SECOND YEAR:**

- 1. Theory examination
  - i. Skin diseases including therapy, skin surgery and in relation to internal medicine
  - ii. Venereology including HIV and Leprosy

    Max marks 100 marks each **Duration** 3 hours each
- 2. **Practical examination** Long and short cases presentation and viva of histopathology, drugs and instruments

#### THIRD YEAR:

Pre-final assessment to be carried out as per university guidelines

#### 1. Theory examination –

- i. Basics as applicable to Dermatology, Venereology, Leprosy and HIV
- ii. Skin diseases including therapy, skin surgery and in relation to internal medicine
- iii. Venereology including HIV and Leprosy
- iv. Recent advances in Dermatology, Venereology and Leprosy **Max marks** 100 marks each **Duration** 3 hours each
- 2. **Practical examination** Long and short case presentation (STD and Hansen's disease), spot cases, viva on histopathology, drugs, instruments and grand viva.