Maharashtra University of Health Sciences,
Nashik

Syllabus

“FELLOWSHIP COURSE IN GERIATRIC MEDICINE”
FELLOWSHIP COURSE IN GERIATRIC MEDICINE

1. Name of the certificate course: Fellowship Course in Geriatric Medicine.

2. Duration of the course: 1 year

3. Aims and Objectives: To upgrade the knowledge and skills for providing comprehensive health care to Elderly. Main objectives are to gain experience in the daily management and provision of continuity care to elderly patients, diseases of elderly, paying particular attention to their functional status and cognitive ability.

According to UN by 2050, nearly 20% of India’s population will comprise of people over the age of 60 years. According to UN India will soon surpass 10% aged population which will make India a Ageing nation. Presently India has 2nd largest number of Elderly. In 2009 India's population of Elderly i.e. 60 + is estimated at around 8% of total population which is around 90 million. The curriculum is developed in the course of one year training program to provide a strong educational and clinical foundation for general practitioners. Following are the objectives of the fellowship in Geriatric Medicine.

- to provide the geriatric fellow with a properly organized training program that provides progressive responsibility for patient care in a patient centered, culturally competent, collaborative community-based environment utilizing a planned curriculum of structured practical, didactic and clinical experiences
- improve their knowledge and attitude towards the care of the elderly.
- to be exposed to an extensive experience in geriatrics with elderly individuals living at different levels of care.
- to be exposed to a core curriculum of geriatric topics; residents read various articles featuring curriculum topics and attend supervised question and answer panel sessions outlined by the American Geriatric Society Core Curriculum manual.
- to gain Knowledge of pharmacologic issues and aging, including polypharmacy, side effects, drug interactions, adherence, costs, and changes in pharmacokinetics and pharmacodynamics in older patients
- to engage in formal and informal teaching sessions with their geriatric preceptor on a regular basis
• to gain knowledge of geriatric principles of rehabilitation, the optimal use of physical, occupational, and speech therapy, exercise, functional activities, assisted devices, environmental modification and various intensities of rehabilitation.
• to gain knowledge of perioperative assessment and management.
• to gain knowledge of the pivotal role of formal and informal caregivers, families and the formal community support systems available.
• to experience how a multi-disciplinary team works in caring for the elderly
• to attend the sessions at Geriatric Assessment Center and learn the basics of interdisciplinary outpatient assessment.
• to demonstrate an understanding of functional assessment of the elderly patient and know what standardized tools are available for such an assessment.
• to have a better understanding of the role of the geriatrician in the care of elderly patients, and how and when to interface with their geriatric colleagues.
• to encourage their professional and scholarly pursuits to remain up to date in the field of emergency rheumatology
• to possess habits of life-long learning to build upon their knowledge, skills and professionalism.
• to foster their interest to contribute to future advancement of the field

    • to encourage the fellow for independent study habits in the acquisition of clinical and research knowledge and skills, for attendance, presentation and participation in the organization of educational and professional scientific conferences

**Desirability of the course:** The fellowship should be conducted in a well established institute which runs Geriatrics Department/ Department of Medicine running Geriatric OPD with special indoor facility for Geriatric patients.

**Faculty required:** Core faculty- Geriatrician. Associated faculty - Physician, cardiologist, Neurophysician, Orthopedician, Surgeon, Psychiatrist, Dentist. Paramedical staff: Medical social worker, Councillor, Physiotherapist. Having one professor and at least two senior teachers specialized in Geriatric Medicine with adequate paramedical staff well trained and experienced in Geriatric care.
Eligibility criteria for admission and intake capacity: MBBS degree from a medical college recognized by Medical Council of India (MCI) and has completed one year Internship/ DNB Medicine interested in career in Geriatric Medicine

Intake capacity: As per the rules prescribed by the University

Teaching Scheme:

In order to achieve the goals and objectives for the fellowship program the curriculum of academic activities will include grand rounds, case presentations, seminars, journal club presentations, inter-departmental forums, activities of clinical as well as basic nature. Regular internal assessments will be done and a final assessment will be done at the end of the program which will test the skills, knowledge and professional attitude of the trainee.

Academic calendar: Fellow for Geriatric Medicine will have to undergo following training program

a) Out Patient Department (OPD): Examination of patients. Three days in a week.

b) In Patient Department (IPD): Daily clinical rounds, necessary procedures, appropriate investigations, diagnosis and management of patients.

c) Academic activities: Grand rounds, journal class, PG clinic, seminars, clinical meetings, panel discussions and case presentation, death audits to be entered in a log book provided by University.

d) Rotation of one month in Internal Medicine

e) Rotation of one month in Psychiatry Department

f) Rotation of Physiotherapy Department and palliative care. Local, State, Regional, National and International conferences as per guidance of Head of Department.

g) Data monitoring and Clinical Research work

h) Log book. A research project has to be submitted three months prior to the final examination.
Curriculum and syllabus of the course:

1. **Basic Knowledge: Gerontology.**
   Biology of aging, Genetic theories of aging, Physiology of aging, Principles of Geriatric Medicine

2. **Knowledge of the diseases in elderly: Internal Medicine and Geriatrics**
   - **Cardiovascular:** Rhythm disturbances, Heart Failure, Cor pulmonale, Pericardial diseases
     Atherosclerosis, Hypertension, Orthostatic hypotension, Peripheral vascular disease, Syncope
     Other degenerative illness
   - **Dermatology:** Environmental etiology, Infections, Seborrheic Dermatitis, Psoriasis, Blistering Diseases, Pruritus, Benign skin tumors, Acne Rosacea, Onychomycosis
     Other degenerative illness
   - **Endocrinology:** Diabetes, The Metabolic Syndrome, Adrenal disorders, Thyroid disorders
     Disorders of calcium metabolism, Osteomalecia, Other degenerative illness
   - **Gastroenterology:** Esophagus, UGI bleed, Stomach and duodenum, Liver, Biliary disease
     Pancreas, Inflammatory bowel disease, Sprue, Lower GI bleed, Colonic disease, Other
   - **Genitourinary:** Male genitourinary disorders, Gynecology, Other degenerative illness
   - **Hematology:** Decreased blood cell counts, Chronic disease, Erythropoietin deficiency
     B12 deficiency, Folate deficiency, Hemolytic, Hemoglobinopathies, Myelodysplastic syndromes, Other degenerative illness
   - **Infectious Diseases:** Atypical presentations, Fever of unknown origin, Respiratory infections
     Genitourinary, Syphilis, HIV, Intrabdominal, Neurologic, Bones and joints, Tetanus
     Bacteremia/Sepsis, Drug-resistant/emergent infections, Other degenerative illness
   - **Nephrology:** Hyponatremia, Hypernatremia, Acute renal failure, Chronic kidney disease
     Glomerular disorders, Renovascular disease, Tubulointerstitial nephritis, Acid-base disorders
     Other degenerative illness
   - **Neurology:** Stroke and Transient Ischemic Attack, Seizures, Movement disorders, Muscle disorders, Neuropathies, Headaches, Aphasias, Myelopathies, Motor neuron disorders
     Other degenerative illness.
   - **Oncology:** Malignancies, Paraneoplastic syndromes, Specific tumors (prevalence, diagnosis, treatment, complications), General treatment
   - **Allergy:** Anaphylaxis, Allergic rhinitis, Ocular, Other
   - **Oral Health:** Dental caries, Periodontal diseases, Candidiasis, Xerostomia, Salivary glands
     Temporomandibular joint, Leukoplakia, Dentures, Nutritional deficiencies and oral health
Other degenerative illness

**Pulmonary Disease:** Asthma and bronchospasm, Chronic obstructive pulmonary disease
Interstitial lung diseases, Primary pulmonary hypertension, Pulmonary thromboembolism
Pleural diseases, Adult respiratory distress syndrome, Acute respiratory failure, Other

**Rheumatology:** Osteoarthritis, Osteoporosis, Musculoskeletal conditions (epidemiology, diagnosis, nonpharmacologic, pharmacologic management), Crystal deposition disease
Polymyalgia Rheumatica and giant cell arteritis, Rheumatoid arthritis, Sjögren’s syndrome
Systemic lupus erythematosus, Dermatomyositis and polymyositis, Amyloidosis, Paget’s disease, Vasculitis, Lyme disease, Scleroderma, Other degenerative illness

**Geriatric Psychiatry:** Dementia, Depression, Bipolar disorder, Anxiety, Schizophrenia, psychosis, hallucinations, Alcohol and substance abuse, Personality disorders and hypochondrias

**Geriatric Syndromes:** Delirium, Dizziness / lightheadedness, Falls and gait disorders,
Sensory loss, Ophthalmology other than vision loss, ENT other than hearing loss
Incontinence, Consequences of immobility, Sleep disorders, Pain, Malnutrition, Frailty

3. **Understand the indications, actions and monitoring of drugs used in the elderly patients:** Geropharmacology - Age-related changes, Pharmacokinetics and pharmacodynamics, Adverse Drug Events (ADE), Prescribing principles, Drug Interactions
Complementary and alternative medications

4. **Functional Assessment and Rehabilitation:** The fellow should be able to take history and perform a detail clinical examination of a patient, mental status examination, evaluation of functional capacity, life expectancy, intellectual impairment of elderly patient.
Conceptual models of disablement, Assessment of disability, Assessment of rehabilitation potential, Aspects of rehabilitation, Interdisciplinary team, Assistive devices, Adaptive equipment, Therapeutic modalities, Orthotics, Prosthetics, Environmental modifications
Rehabilitation settings, Insurance issues, Rehabilitation of common conditions.

5. **Caring for the Elderly:** Abuse of elders. Caregiver and family concerns
6. **Develop research experience**
A short project has to be submitted by the student during the course three months before final examination. This will include training in the analysis of data and an understanding of the principles and practice of clinical research, literature research and review. Eventually the fellow should be able to promote and supervise research.

10. **Teaching experience**
Demonstrate the ability to teach medical and paramedical staff by experience and attending specific courses.

**Scheme of examination in details:**

**I. Pattern of Exam:**
Each year examination coordination committee (ECC) consisting of three teachers running Fellowship/ certificate course will be nominated by the director. Both theory and practical Examinations will be conducted within 15 days of the end of the course. Examination will be conducted in individual colleges. Each examination will have one internal and one external examiner.

**II Theory – 200 Marks.**
- Paper I - Internal Medicine
- Paper II – Geriatric Medicine

100 marks Each Paper. (Ten short notes of 10 marks each out of 12 questions)
Duration 3 hours Each Paper.
Passing marks per paper 50%

**III Practicals**
Each candidate will be examined by both examiners simultaneously for 2 hours. This will include two cases (one long and one short case) and a viva voce. Passing marks 50%.
Candidate will have to pass individually in both theory and practical examination.

**The summary of Examination**
- Theory 200 marks
- Practical 100 marks
- Long case 40
- Short case 20
- Viva Voce 20
- Log book and Project 20
Textbooks/ Reference books

1. Hazzard's Geriatric Medicine & Gerontology, Sixth Edition (Principles of Geriatric Medicine & Gerontology) Jeffrey Halter, Joseph Ouslander, Mary Tinetti and Stephanie Studenski
2. Essentials of Clinical Geriatrics: Sixth Edition Robert Kane, Joseph Ouslander
3. Geriatric Medicine by Christine K. Cassel
4. Fundamentals of Geriatric Medicine: A Case-Based Approach Helen Fernandez
7. Current Geriatric Diagnosis and Treatment. C. Landefeld, Robert Palmer, Mary Anne Johnson and Catherine Johnston.
9. Primary Care Geriatrics: A Case-Based Approach Richard J. Ham
10. Evidence-Based Geriatric Nursing Protocols for Best Practice: Third Edition (Springer Series on Geriatric Nursing) Elizabeth Capezuti, DeAnne Zwicker
13. Internet search.