



Department of Biomedical Sciences
Physiotherapy Degree Programme
Geriatrics and Paediatrics Syllabus

Academic year 2020-2021. Academic term: first semester of second year
Course coordinator: Dr Bruno Bernardini

GERIATRICS (4 ECTS)

Dr Bruno Bernardini

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Objectives

The course aims to train students in physiology and clinical aspects of geriatric syndromes, and in the concept of rehabilitation of clinical conditions typical of advanced age. The common denominator of the module is to consider the patient's functional and quality of life needs.

Teaching methods

Lectures with slides. Classroom discussion at the end of each lesson and answering questions concerning the topics covered.

Teaching material

Slides presented in lecture, available on LMS for physiotherapy students

Content

1) Ageing population and diseases

The ageing population. Chronic diseases. Multimorbidity and comorbidity

2) Ageing of the individual: perspectives and clinical implications

Changes associated with 'normal' ageing. Psychological ageing. Perspectives and clinical implications

3) Prevention in gerontology

The benefits of physical exercise. Adapted Physical Activities (APA). Nutrition and ageing

4) The frail elderly person

Frailty. Sarcopenia and other markers. The consequences of frailty

5) Acute and Chronic: the locations and timelines of care

The hospital for acute care and the frail elderly. Home care. Residences for the elderly (RSA) and hospice.

6) The physiotherapist and teamwork

Communication with the patient. The rehabilitation environment (prosthetic, "enriched"). Professional autonomy and group responsibility

7) Verifying learning and discussion

ASSESSMENT OF THE ELDERLY PATIENT

8) Reference models

The bio-psycho-social model. The ICF model. Pragmatic models

9) Geriatric Multidimensional Assessment

General concepts and objectives. Tools and methods. The main rating scales

10) Quality of life (QoL) and treatment decisions

QoL and quality of care. QoL as the primary outcome. Residences for the elderly (RSA) and hospice.

11) Clinimetrics: from assessment to the rehabilitation project

Rating scales in practice. Intervention planning. Care processes and outcomes

12) Prognosis and appropriateness of intervention

Is life a probability? Useful, futile or dangerous. The last year of life

13) Evaluation of the individual in different contexts

Outpatient evaluation. Pre-operative evaluation. Evaluation in rehabilitation and chronic care

14) Presentation and discussion of clinical cases

Case 1, Case 2, Case 3

15) Verifying learning and discussion

GERIATRIC SYNDROMES

16) Geriatric syndromes

Diseases and syndromes. Taxonomies and phenotypes. Treatment organised by syndromes

17) Disorders of walking and basic mobility (Immobility)

"Senile" and pathological gaits. The evaluation of motor performance. The role of the physiotherapist

18) Postural instability and falls

Epidemiology (prevalence, incidence, clinical and functional impact). Identification (1st and 2nd level assessment), monitoring and therapeutic goals. The role of the physiotherapist

19) Pain

Epidemiology (prevalence, incidence, clinical and functional impact). Identification (1st and 2nd level assessment), monitoring and therapeutic goals. The role of the physiotherapist

20) Depression and psychiatric illnesses

Epidemiology (prevalence, incidence, clinical and functional impact). Identification (1st and 2nd level assessment), monitoring and therapeutic goals. The role of the physiotherapist

21) Confusion and Delirium

Epidemiology (prevalence, incidence, clinical and functional impact). Identification (1st and 2nd level assessment), monitoring and therapeutic goals. The role of the physiotherapist

22) Urinary and faecal incontinence

Epidemiology (prevalence, incidence, clinical and functional impact). Identification (1st and 2nd level assessment), monitoring and therapeutic goals. The role of the physiotherapist

23) Deconditioning and immobility

Epidemiology (prevalence, incidence, clinical and functional impact). Identification (1st and 2nd level assessment), monitoring and therapeutic goals. The role of the physiotherapist

24) Presentation and discussion of clinical cases

Case 1, Case 2

25) Verifying learning and discussion

REHABILITATION OF SPECIFIC CONDITIONS

26) Rehabilitation therapy of stroke patients

Specific Neuromotor and neuropsychological aspects. Comorbidity and barriers to recovery. Treatment approach

27) Rehabilitation therapy of patients with extrapyramidal syndrome

Specific neurological aspects. Comorbidity and barriers to recovery. Treatment approach

28) Rehabilitation therapy of patients with femur fracture

Specific orthopaedic aspects. Comorbidity and barriers to recovery. Treatment approach

29) Rehabilitation therapy of patients with hip prostheses

Specific orthopaedic aspects. Comorbidity and barriers to recovery. Treatment approach

30) Rehabilitation therapy of dementia patients

Specific behavioural aspects. Comorbidity and barriers to recovery. Treatment approach

31) Rehabilitation therapy of patients with major spinal disease

Specific neuro/orthopaedic aspects. Comorbidity and barriers to recovery. Treatment approach

32) Rehabilitation needs in the elderly with oncological pathology

Specific oncological aspects. Comorbidity and barriers to recovery. Treatment approach

33) Presentation and discussion of clinical cases

Case 1. Case 2. Case 3

PAEDIATRICS (1 ECTS)

Dr Elisa Giani	University researcher at Humanitas University. She graduated in Medicine from the University of Milan in 2008, specialised in Paediatrics in 2014 and received her PhD in Nutritional Sciences in 2018. She has been a Research Fellow at Harvard Medical School (USA) since 2014. E-mail: elisa.giani@hunimed.eu
Objectives	<p>Provide the main knowledge of auxology and child development. In-depth study of paediatric pathologies that may require rehabilitative physiotherapy treatment.</p> <p>Know of growth and development before and after birth, the risk factors of preterm birth and the related complications. Know the signs and symptoms of the pathologies of the central and peripheral nervous system, of the neuromuscular system and of the locomotor apparatus from a developmental point of view. Know the main cultural orientations in child neurological semeiotics. Learn assessment methods that adapt to physiological changes in developmental age.</p> <p>Know the main pathologies of interest for the Degree Course with particular attention to:</p> <ul style="list-style-type: none"> - Motor and psychomotor retardation: aetiology, clinical characteristics with a focus on neurological semeiotics of infant and young child development disorders. - Obstetric paralysis: causes, clinical forms, natural history, classification system, principles of rehabilitation therapy. - Congenital clubfoot: clinical forms, classification, principles of rehabilitation therapy. - Congenital torticollis/ Moulded Baby Syndrome: clinical forms, principles of therapy. - Infantile cerebral palsy: Definition. Aetiology. Clinical forms. Natural history of the different clinical forms. Methodology of clinical and functional assessment, and principles of integrated rehabilitation treatment (surgery to restore function, orthosis, treatment of spasticity).
Teaching methods	Lectures with slides. Classroom discussion at the end of each lesson and answering questions concerning the topics covered.
Teaching material	Slides presented in lecture, available on LMS for physiotherapy students
<p>Content</p> <p>1) Neuro-motor development in the developmental age with a focus on the first 24 months of life</p> <p>Healthy newborn, premature newborn, SGA and newborn at risk: neurological and functional assessment and main complications of interest (obstetric paralysis, plagiocephaly and congenital torticollis...)</p> <p>2) Developmental disorders</p> <p>Overview on dysauxias, auxopathies and disorders of pubertal development</p>	

3) Congenital disorders of the locomotor system of the lower limb

Hip dysplasia, flat feet, pes cavus, clubfoot

4) Disorders of the spine during growth

Idiopathic scoliosis

5) Eating disorders

Obesity and thinness

6) Rickets

Defect in ossification of newly formed osteoid matrix

7) Infantile cerebral palsy

Definition, pathophysiology and clinical aspects of ICP

Examination for the Geriatrics and Paediatrics course. Written examination with multiple-choice questions on all module topics. (Chairman of the Examination Committee: Dr Bruno Bernardini)