



## MEDICINE AND SURGERY

Course: **Clinical Neuroscience**

Year: 5<sup>th</sup>

Period: 1



clinical methodology in neurology; Describe the initial clinical approach to the patient with neurological problems; Describe the main categories of neurological diseases and their frequency.

(Nobile-Orazio)

Learning goals: Describe the symptoms due to impairment of cranial nerve;



Review the etiopathogenesis of: Parkinson, Huntington, Alzheimer, Amyotrophic Lateral Sclerosis, Multiple Sclerosis.

(Albanese)

Learning goals: Describe the varied clinical presentations of a patient with cognitive impairment; Learn how to investigate a patient with cognitive impairment; Learn how to distinguish age-related cognitive decay from dementia; Review the different causes of dementia; Learn how to manage a patient with dementia.

(Albanese)

Learning goals: Describe the clinical presentation of a patient with confusion and delirium; Learn what how to assess a patient with confusion and delirium; Describe the main causes of confusion and delirium; Learn how to treat patients with delirium.

Priority Presenting Problems Portfolio: Altered Mental Status, Substance Abuse

(Albanese)

Learning goals: Learn the pathology and physiopathology of chronic cerebrovascular diseases; Differentiate between degenerative and vascular parkinsonism; Differentiate between degenerative and vascular dementia.

(Politi)

Learning goals: Recognize the main imaging features of brain CT; Recognize the main imagi



Learning goals: Describe the principal complication of stroke; Describe the prognosis of a patients with stroke; Describe the therapeutic approach to a patient with stroke; Describe the therapy in the acute phase of stroke; Describe the secondary prevention o stroke.

(Politi)

Learning goals: Learn to recognize an acute ischemic stroke on CT and MRI images; Learn timing and indication of the different neuroimaging modalities in the management of a patient with acute ischemic stroke; Gain familiarity with CT angiography. Learn to recognize normal vasculature and vessel occlusions; Understand the differences between cytotoxic and vasogenic edema; Understand the fundamentals of endovascular thrombectomy; Learn how to depict brain chronic ischemic lesions on CT and MRI.

(Albanese)

Learning goals: Describe the clinical presentation of a patient with fainting and loss of consciousness; Describe the main causes of fainting and loss of consciousness; Learn what is the assessment of fainting and loss of consciousness; Learn how to treat patients with fainting and loss of consciousness; Learn how to manage and treat patients with fainting and loss of consciousness.

Priority Presenting Problems Portfolio: Transient Loss of Consciousness

(Nobile-Orazio)

Learning goals: Describe the clinical presentation of a patient with pain in the head; Learn what are the main causes of headache; Learn how to diagnose different types of headaches; Learn how to treat patients with headache.

Priority Presenting Problems Portfolio: Headache

(Servadei, Pessina, Costa)

Learning goals: Describe the physiology and pathophysiology of the mechanisms underlying ICP control; Learn causes of ICP dyscontrol; Learn the clinical presentation of ICP hypertension and hypotension; Learn how to treat patients with ICP disorders.

(Nobile-Orazio)

Learning goals: Describe the clinical presentation of a patient with fever and acute neurological impairment; Learn what is meningitis and encephalitis; Learn how to approach patient with suspected meningitis and encephalitis; Learn how to establish the diagnosis of patient with suspected meningitis and encephalitis; Learn how to treat patients with suspected meningitis and encephalitis.

Priority Presenting Problems Portfolio: Fever

(Nobile-Orazio)

Learning goals: Describe the clinical presentation of a young patient with relapsing neurological deficits; Learn what is multiple sclerosis; Learn how to diagnose multiple sclerosis; Learn how to treat patients with multiple sclerosis.



(Albanese)

Learning goals: Describe the different hyperkinetic movement disorders; Learn how to diagnose a patient with hyperkinetic movement disorder; Learn how to manage patients with hyperkinetic movement disorders; Describe ataxias; Learn how to diagnose a patient with cerebellar ataxia

(Albanese)

Learning goals: Describe the clinical presentations of a patient with motor neuron disease; Learn how to assess a patient with progressive muscle weakness and atrophy; Learn how to diagnose amyotrophic lateral sclerosis; Learn how to manage the patient with amyotrophic lateral sclerosis.

(Nobile-Orazio)

Learning goals: Describe the clinical presentation of a patient with rapidly progressive palsy; Learn how to evaluate a patient with rapidly progressive palsy; Learn the main causes of rapidly progressive palsy; Learn how to distinguish peripheral from central rapidly progressive palsy; Learn what is acute demyelinating inflammatory polyradiculoneuritis (Guillain-Barré syndrome); Learn what is acute myelitis; Learn how to diagnose and treat Guillain-Barré syndrome.

(Nobile-Orazio)

Learning goals: Describe the clinical presentation of a patient with pain and weakness in the feet; Learn how to evaluate a patient with a suspected neuropathy; Learn what are the main causes of neuropathy; Learn how to distinguish the main causes of neuropathy; Learn what are the inflammatory neuropathies; Learn how to treat patients with neuropathy

(Nobile-Orazio)

Learning goals: Describe the clinical presentation of a patient with weakness or fatigability; Learn how to evaluate a patient with a suspected myasthenia gravis



Learning goals: Describe the clinical presentation of a patient with head trauma; Describe the direct effects of head trauma; Describe the secondary effects of head trauma; Describe the neuroradiological approach to a patient with head trauma; Describe the management of a patient with head trauma; Describe the complication of head trauma.

Priority Presenting Problems Portfolio: Trauma

(Servadei, Pessina, Costa)

Learning goals: Describe the clinical presentation of a patient with different types of brain hemorrhage; Learn the diagnostic workout; Learn the surgical indications in these patients; Learn which are the main causes of brain hemorrhage; Learn the different surgical approaches; Learn the clinical outcomes of surgery of the brain hemorrhagic patients.

(Politi)

Learning goals: Learn how to recognize an acute intracranial hemorrhage on CT and MRI images; Being able to distinguish intraparenchymal hemorrhage from subarachnoid hemorrhage, and subdural hematoma from epidural hematoma; Understand the complication of intracranial hemorrhage.



treatments for headache and migraine; Organize and integrate reasoning on headache, its causes, pathophysiology, clinical presentations, diagnostic and therapeutic approaches

(Albanese)

Learning goals: Identify and solve difficulties in learning clinical neurosciences; Review interdisciplinary and bridging topics; Test learning through examples

## **Teaching methods**

## **Verification of learning**