

BIMM Modular Course Learning Objectives

Module 1: Introduction and Basic Concepts in MS Medicine

1. To describe acute and chronic pain neurophysiology.
2. To assess the psychological determinants and effects of musculoskeletal pain and dysfunction.
3. To quote relevant experimental work exploring dysfunction of the neuromusculoskeletal system.
4. To take and record a history that explores the multiple determinants of musculoskeletal pain and disability.
5. To begin to apply an integrated musculoskeletal examination that fosters the skills of tactile and visual pattern recognition of dysfunction in the neuromusculoskeletal system as well as efficiently eliciting the signs of pathological change.
6. To integrate the information derived while meeting the former objectives into a conceptual model of somatic dysfunction that allows the interaction of multiple factors to be considered in diagnosis and patient management.
7. To begin developing skills of body use that once achieved can be used in patient education.
8. To introduce elements of cognitive behavioral therapy.

Module 2. The Lumbar Spine and Clinical Research Methods

1. To be aware of the different research methods available, statistical tools used and their application to these research methods.
2. To discuss critically the relevance to clinical practice of specific research papers in the musculoskeletal field and evidence based guidelines.
3. To be familiar with the structure and function of the lumbar spine and the changes in this region associated with age and degenerative disease.
4. To compare and contrast the symptoms and signs of the syndromes currently included in the named diagnostic variables causing 'back pain': symptomatic disc herniation, facet syndrome, sacroiliac and lumbar dysfunction, spinal stenosis and cauda equina syndrome.
5. To identify the deficiencies in the understanding of the natural history of the above named conditions, and how this impacts on the assessment of different treatment strategies.

Module 2. The Lumbar Spine and Clinical Research Methods cont.....

6. To further develop pattern recognition skills in the observation, palpation and motion assessment findings of the lumbar region to the point of being able to implement a crude treatment plan.
7. To begin to develop soft tissue, articulation and locking skills which will enable an attempt at treatment of a patient with mechanical back pain.
8. To use concepts of mathematical analysis, muscle balance and stability in ergonomic assessment, management and education of patients suffering from spinal problems.
9. To further develop understanding and personal skills in the practice and teaching of optimal body use.

Module 3. The Cervical Spine and Systemic Disorders

1. To know the structure of soft tissues and the process of injury and repair in order to plan appropriate management.
2. To be able to employ laboratory tests appropriately for screening for, and diagnosis of, pathology in the musculoskeletal system.
3. To understand the principles of diagnosis and management of the inflammatory disorders and recognise the manifestations of childhood rheumatic disease.
4. To understand the natural history of osteoporosis, its prevalence and impact on morbidity, and to utilise screening tests appropriately; to be able to advise patients on preventive strategy and options in treatment.
5. To understand the physics of imaging methods to be able to determine their appropriateness in investigation of musculoskeletal disorders.
6. To have a working knowledge of EMG, nerve conduction studies and SEPs and their relevance in diagnosis.
7. To be able to perform joint aspiration and injection and soft tissue injections with an awareness of the indications, accuracy and potential hazards.
8. To understand joint motion of the cervical spine, cervicothoracic junction and first rib and make a differential diagnosis of painful disorders arising therefrom.
9. To be able to develop strategies for manual treatment of cervical spine dysfunction using soft tissue and muscle energy techniques and to demonstrate their application.
10. To understand the factors affecting recovery from 'whiplash syndrome' and develop strategies in management based on the evidence available.

Module 3. The Cervical Spine and Systemic Disorders cont.....

11. To know the indications and techniques of injection treatment for cervical spine disorders. To know the indications for surgical referral.
12. To understand the relevance of ergonomics in education and prevention of neck and shoulder pain.

Module 4. The Thoracic Spine and Pelvis

1. To understand the role of breathing type and rhythm in the production of musculoskeletal and other symptoms, and to be able to help patients optimise this function.
2. To know the basic functional anatomy of the thorax and to be able to apply a relevant diagnostic examination of the thoracic spine, ribcage and chest wall.
3. To be able make a differential diagnosis of above region and plan appropriate management.
4. To be able to apply manual treatment techniques and other minimally invasive therapies to this region.
5. To be able to confidently identify myofascial dysfunctions, the range of factors involved in causation, and develop holistic strategies in treatment.
6. To develop an understanding of the role of high velocity thrust in manual medicine to be able to make individual decisions about its use in case management.
7. To develop a working knowledge of pelvic functional anatomy and select a considered personal approach to examination and treatment of that region.
8. To be able to apply a range of therapeutic manual techniques in the management of sacroiliac/pelvic dysfunction.
9. To assess progress achieved thus far in the course in terms of knowledge and skills gained, to evaluate this honestly amongst tutors and students, to identify further learning needs and the resources to meet them, and incorporate this into the learning portfolio.

Module 5. The Upper Limb and Ergonomics

1. To understand the relevance of ergonomics at the workplace in the aetiology of upper limb pain syndromes, and to be able to make a diagnosis and manage these conditions.

Module 5. The Upper Limb and Ergonomics cont.....

2. To be able to examine, diagnose and treat (using manual and injection techniques) the various dysfunctions and pathologies of the shoulder region.
3. To be able to examine diagnose and treat (using manual and injection techniques) the various dysfunctions and pathologies arising in the elbow and forearm.
4. To be able to examine diagnose and treat (using manual and injection techniques) the various dysfunctions and pathologies of the wrist and hand,
5. To be able to recognise nerve entrapment syndromes of the upper limb and to know how to manage them.
6. To be familiar with the indications for surgery and specialist referral for above regions.

Module 6. The Lower Limb and Relevant Sporting Injuries

1. Develop an understanding of the relevance of sports medicine and basic exercise physiology to the management of patients with musculoskeletal disorders.
2. To be familiar with the principles of rehabilitation and the special needs and issues affecting the athlete.
3. To be able to examine, make a differential diagnosis and carry out effective management for hip and groin region, knee, ankle and foot.
4. To be able to use imaging investigation such as ultrasound, radiography, CT and MRI appropriately in the management of conditions affecting these regions.
5. To recognise the importance of lower limb and foot mechanics in the causation and management of musculoskeletal conditions both in the sporting and general population.
6. To know the indications and evidence base for efficacy of, surgery for the hip, knee ankle and foot, and be familiar with common complications arising there from.
7. To be able to present and critically discuss case histories from recent clinical experience.

Module 7. Pain Management and Cognitive Behavioral Therapy

1. To understand the various manifestations of the chronic pain state to enable selection of treatment appropriate to them.

Module 7. Pain Management and Cognitive Behavioral Therapy cont.....

2. To understand the biopsychosocial model of chronic musculoskeletal pain and disability. To be aware of the data supporting it and its implications for diagnosis and management.
3. To be familiar with the role of the pain clinic and pain management programmes in order to refer appropriately and maintain and apply the same principles in the community.
4. To have a thorough knowledge of the analgesic ladder and other medication used for chronic benign pain, in particular the pros and cons for opioid use.
5. To be familiar with the application of acupuncture and TENS in chronic pain management, and how to utilise other resources for self help and support in the community.
6. To be able to apply basic skills in cognitive behavioural therapy.
7. To consolidate learning and skills gained over the preceding 6 modules in examination, diagnosis and treatment techniques using a problem oriented approach with actual case histories supplied and presented by participants.

Module 8. Occupation Health and an Integrated Approach

1. To be familiar with the guidelines produced by the Faculty of Occupational Medicine on musculoskeletal pain and disability.
2. To understand the relevance of health and safety issues, employment legislation, ill health retirement, fitness for role and the benefit system to the management of sickness absence.
3. To be familiar with the role of the occupational health team and the factors influencing return to work.
4. To be able to make informed decisions on the utilisation of resources and medical interventions in management of employees/patients.
5. To be able to orchestrate a comprehensive approach to the assessment and management of musculoskeletal disorders utilising personal skills and other members of the team.
6. To develop an understanding of the range of specific and general exercise prescriptions employed in acute through to chronic back pain.
7. To learn through problem oriented case histories appropriate application of treatment techniques (manual and injection) and further develop the skills in their delivery.