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| **Phase III Musculoskeletal Healthcare - Core Presentations & Learning OutcomesPlease refer to the notes on Moodle on how to use these** |
| **Core presentation / learning outcome** |
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| Child Health |
| Fractures in Children |
| By the end of Phase 3, students should be able to: |
| ·       recognise those fracture patterns that occur in children and their possible aetiological factors |
| ·       initiate appropriate investigations for a child presenting with fracture(s) |
| ·       recognise the basic radiological features of fractures |
| ·       be aware of non-accidental injury and outline the strategy for the handling of non-accidental injuries |
| ·       act as part of the team in the immediate and definitive care |
| The Limping Child |
| (see Musculoskeletal) |
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| Musculoskeletal |
| Core presentations |
| ·       Acute joint pain and swelling |
| ·       Back pain and sciatica |
| ·       Chronic joint pain |
| ·       Fractures/osteoporosis |
| ·       Hip Fracture |
| ·       Pathological fracture |
| ·       Multiple trauma/head injury |
| ·       Soft tissue injury/other trauma |
| ·       Bone pain |
| ·       Musculoskeletal deformities |
| General approach to patients with musculoskeletal problems |
| By the end of Phase 3 students should be able to: |
| ·       demonstrate their ability to identify the important causes of: |
| •                     pain arising in multiple small joints |
| •                     pain arising in a solitary large joint |
| •                     pain and/or paraesthesia arising in the spine |
| •                     pain arising in soft tissues |
| ·       elicit selectively, normal and abnormal physical signs in the musculoskeletal system to test diagnostic hypotheses |
| ·       use investigations selectively to test the diagnostic hypothesis |
| ·       negotiate, where appropriate, alterations in lifestyle that may contribute to management of musculoskeletal disease |
| General approach to patients with traumatic injuries |
| By the end of Phase 3 students should be able to: |
| ·       identify the extent and severity of injury following trauma by taking an appropriate history, and by the selective use of physical signs and investigations |
| ·       perform basic first aid and resuscitative care in a patient with musculoskeletal trauma and burns |
| ·       act appropriately to prevent tetanus |
| ·       communicate effectively with patients about the consequences of trauma and the impact both in the short and long term |
| ·       identify potential risk factors for traumatic injury and the ways they may be reduced |
| ·       discuss rehabilitation with physiotherapists and occupational therapists |
| Fractures (general) |
| By the end of Phase 3 students should be able to: |
| ·       manage the immediate first aid care of a fracture |
| ·       describe when the possibility of fracture should be suspected and request appropriate radiological investigations |
| ·       recognise the radiological features of fractures and the specific features of the commoner fractures |
| ·       recognise the radiological features of lipohaemarthrosis and its clinical implications |
| ·       recognise the radiological features of subluxation and dislocation |
| ·       manage the first aid for someone presenting with suspected fracture |
| ·       apply an appropriate Plaster of Paris back-slab to upper and lower limbs |
| ·       describe the management of the most common types of fractures |
| ·       describe how the processes of healing may be promoted or retarded |
| ·       recognise the possibility of acute compartment syndrome and fat embolism, and arrange appropriate management |
| Fractures in elderly people |
| By the end of Phase 3 students should be able to: |
| ·       recognise those fracture patterns particular common in elderly people |
| ·       recognise the underlying aetiological factors predisposing to fracture in the elderly |
| ·       request appropriate radiological investigations for elderly patients following injury |
| ·       recognise the possibility of significant underlying disease which may influence definitive treatment of the fracture and initiate appropriate investigation |
| Fractures in children |
| (see Child Health) |
| Open fractures |
| By the end of Phase 3 the student should be able to: |
| ·       recognise an open fracture |
| ·       apply the principles of immediate stabilisation and wound coverage |
| ·       prescribe tetanus toxoid and antibiotics appropriately |
| ·       explain the importance of debridement |
| ·       act as part of the team in the definitive care for these fractures |
| ·       recognise the possibility of complications such as chronic osteomyelitis |
| Soft tissue injuries |
| By the end of Phase 3 students should be able to: |
| ·       distinguish clinically between strain, sprain, and rupture of ligaments and muscles |
| ·       assess traumatic knee effusions, including recognising the radiological appearances |
| ·       initiate investigations, where appropriate, in patients with soft tissue injuries |
| ·       initiate management of soft tissue injuries |
| ·       recognise the common underlying aetiological factors predisposing to infection in soft tissue injuries and wounds |
| ·       identify infection in soft tissue injuries |
| ·       request appropriate radiographic examinations and other investigations as required to assess the extent of soft tissue infections |
| ·       recognise the possibility of a gas-forming infective organism being present, the significance of this to the patient's health and the principles of investigation and management of this infection |
| ·       assess skin lacerations, including the recognition of foreign bodies, perform simple suturing under local anaesthesia and dress wounds |
| ·       initiate surgical management of soft tissue injuries |
| Limb injuries |
| By the end of Phase 3 the student should be able to: |
| ·       check the nerve and vascular supply distal to any injury |
| ·       diagnose nerve and tendon injuries in the hand |
| ·       identify injuries needing operative repair |
| ·       discuss rehabilitation in broad outline with the patient with the injured hand |
| ·       identify vascular injury in the upper and lower limbs |
| ·       identify nerve injury in the upper and lower limbs |
| ·       identify tendon injuries in the upper and lower limbs |
| Multiple trauma |
| By the end of Phase 3 the students should be able to: |
| ·       identify the basic principles of resuscitation in the multiply traumatised patient according to ATLS guidelines |
| ·       describe the role of team members in an ATLS trauma resuscitation |
| ·       be aware of the injury severity grading systems |
| ·       prioritise a patient’s injuries according the specific circumstances |
| ·       describe the importance of the 'golden hour' |
| ·       identify the range of investigative procedures in a patient with multiple trauma such as radiographs, peritoneal lavage and urethography and be aware of the indications for these |
| ·       identify the indications for immediate life support procedures such as endotracheal intubation, needle thoracocentesis or insertion of chest drain and drainage of cardiac tamponade |
| Acute onset joint pain |
| By the end of Phase 3 students should be able to: |
| ·       consider the differential diagnosis for a patient with joint pain and use history, examination and appropriate investigations to identify the cause |
| ·       initiate management of acute onset joint pain, depending on the possible causes |
| ·       recognise the symptoms of infection of bone or soft tissue |
| ·       recognise the possibility of septic arthritis, and arrange appropriate management if septic arthritis is suspected |
| ·       diagnose gout and manage it appropriately |
| Chronic inflammatory and degenerative joint disease |
| By the end of Phase 3 students should be able to: |
| ·       recognise rheumatoid arthritis and distinguish active from inactive disease |
| ·       describe the immunological basis of rheumatoid arthritis |
| ·       recognise the multi-system manifestations of autoimmune processes |
| ·       describe the rational use of investigations for the diagnosis or exclusion of autoimmune disease |
| ·       recognise the clinical presentation of osteoarthritis |
| ·       diagnose and assess the severity of degenerative disease of the hip and knee |
| ·       initiate appropriate investigations for patients presenting with degenerative joint disease such as osteoarthritis |
| ·       interpret the major radiological changes of osteoarthritis of the hip and knee, and of rheumatoid arthritis of the hand |
| ·       initiate appropriate management, especially the relief of pain |
| ·       discuss with patients the range of aids to daily living that are available |
| ·       describe the referral pathways for patients to physiotherapy and occupational therapy |
| ·       recognise the need for surgical assessment for patients presenting with degenerative joint disease, describing the indications for total hip and knee replacements |
| ·       discuss the treatment options available for patients with degenerative joint disease, the role of rehabilitation and the benefits and possible risks of surgical treatment |
| ·       use appropriate communication skills to sensitively discuss with a patient that he/she has incurable chronic joint disease |
| Back Pain and Sciatica |
| By the end of Phase 3 students should be able to: |
| ·       obtain a history from a patient presenting with back pain and/or sciatica |
| ·       distinguish potentially serious causes of back pain |
| ·       examine a patient with back pain and perform a neurological examination to assess the extent of any neurological involvement |
| ·       identify the nature and cause of neurological symptoms or signs |
| ·       arrange investigations appropriately and in a logical order |
| ·       describe the role of MRI |
| ·       outline an appropriate treatment plan with the patient |
| ·       be aware of rehabilitation processes and techniques such as physiotherapy, osteopathy and chiropractic for the patient with back pain |
| ·       recognise the indications for a surgical opinion |
| ·       discuss with patients the long term management of low back pain |
| ·       recognise the interaction between low back pain and occupation |
| Nerve Compression |
| By the end of Phase 3 students should be able to: |
| ·       recognise nerve compression in the upper and lower limbs |
| ·       initiate investigations for a patient with nerve compression |
| ·       recognise the symptoms, signs and possible causes of progressive cervical myelopathy |
| ·       recognise and refer patients with suspected cauda equina compression |
| ·       recognise the symptoms, signs and possible causes of spinal cord compression |
| ·       describe the role of surgery and/or radiotherapy in the relief of nerve compression |
| Bone and soft tissue tumours |
| By the end of Phase 3 students should be able to: |
| ·       identify the broad pathological types of bone and soft tissue tumours which affect the musculoskeletal system |
| ·       recognise the possibility of underlying bone or soft tissue tumour in patients presenting with musculoskeletal symptoms |
| ·       detect major abnormalities on examination suggestive of bone and soft tissue tumour |
| ·       recognise the importance of staging and how this may be performed |
| ·       be aware of the concepts of treatment of bone and soft tissue tumours |
| Congenital Problems |
| By the end of Phase 3 students should be able to: |
| ·       detect scoliosis, fixed flexion, kyphosis, varus and valgus deformities |
| ·       detect deformity present in the knee, hip, shoulder and the small joints of the hand |
| ·       consider the possibility of congenital dislocation of the hip and talipes equinovarus |
| ·       perform the diagnostic procedures available at birth and early life to detect these conditions |
| ·       outline the diagnosis, management and prognosis to the family |
| The Limping Child |
| By the end of Phase 3, students should be able to: |
| ·       examine the child with the painful hip or knee |
| ·       recognise the clinical presentations of irritable hips, synovitis, systemic rheumatoid arthritis, slipped upper femoral epiphysis, Perthes’ disease, septic arthritis, osteomyelitis and tumour |
| ·       initiate appropriate investigations |
| ·       outline an approach to management |
| Metabolic bone disease |
| By the end of Phase 3 students should be able to: |
| ·       recognise the circumstances where osteoporosis is likely to occur |
| ·       be able to give advice to patients about preventing osteoporosis and outline treatment strategies |
| ·       recognise the circumstances when osteomalacia may occur |
| ·       initiate investigation of osteomalacia |
| ·       recognise the circumstances when hypercalcaemia may occur |
| ·       initiate the management of hypercalcaemia |
| Other conditions |
| By the end of Phase 3 students should be able to: |
| ·       recognise, investigate and initiate management of temporal arteritis |
| ·       recognise common dermatological manifestations of rheumatic disease |
| Pain relief |
| By the end of Phase 3 students should be able to: |
| ·       prescribe mild, intermediate and strong analgesics as appropriate |
| ·       use combinations of anti-inflammatory agents and analgesics appropriately |
| ·       access sources of advice for patients whose pain is not satisfactorily controlled |
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| Neurological |
| Core presentations |
| ·       Mobility difficulties (Elderly) |
| ·       Numbness and tingling |
| Limb symptoms |
| By the end of Phase 3 students should be able to: |
| ·       outline the causes of neurological problems in the upper and/or lower limbs, including weakness, sensory disturbance and pain |
| ·       relate a patient’s symptoms to the underlying anatomy and pathophysiology |
| ·       identify and manage patients requiring immediate or urgent intervention |
| ·       recognise peripheral neuropathy and outline its investigation and management |
| ·       recognise compression of the median nerve in the carpal tunnel and investigate the possible causes |
| ·       outline the management options for patients presenting with carpal tunnel syndrome |
| ·       recognise the possibility of muscle disorders in patients presenting with muscle weakness |
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| Skin |
| Core presentations |
| ·       Pigmented skin lesions |
| ·       Skin ulcers |
| ·       Skin lumps |
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| General |
| Core presentations |
| ·       The patient needing pain control |
| Mobility difficulties in the elderly |
| By the end of Phase 3 students should be able to: |
| ·       recognise those physical, psychological and environmental factors which cause immobility |
| ·       recognise the complications of immobility |
| ·       distinguish the cause of immobility on history and examination |
| ·       pay due attention to the importance of a patient's clothes and shoes |
| ·       work with physiotherapists and occupational therapists in the mobilisation of patients |
| ·       give general advice to patients about mobility aids |
| Adults requiring long-term care |
| By the end of Phase 3 students should be able to: |
| ·       describe methods used to assess the impact of frailty and illness on daily activities |
| ·       work with social workers, physiotherapists and occupational therapists to improve a patient's independence or quality of life |
| ·       carry out a functional assessment in collaboration with the physiotherapist and occupational therapist |
| ·       refer appropriately for rehabilitation |
| ·       take part in discussions about referral for long-term care |
| ·       define and recognise adults who are vulnerable to abuse, applying appropriate safeguarding measures when appropriate |
| ·       describe how carers (paid and unpaid) contribute towards the management of patients with long-term conditions |
| ·       outline the health and social issues affecting unpaid carers and describe ways in which unpaid carers can be supported |
| Disability in younger patients |
| By the end of Phase 3 students should be able to: |
| ·       advise patients on basic aids, adaptations, benefits and facilities for disabled people |
| ·       seek further advice about help for disabled people |
| ·       discuss with patients the potential for prevention of disability |
| ·       discuss with patients the prevention of deterioration and the improvement of function with rehabilitation |
| ·       work with patients in a partnership to make the best use of their abilities |
| ·       relate how psychological factors affect the prognosis in long-term physical illness, stress and depression |
| ·       discuss with patients the effect of disability on social and family life and on employment |
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| Clinical Diagnostic & Procedural Skills |
| From GMC ‘Outcomes for Graduates’ - see separate guidance on Clinical Skills / TDOCs |