

Integrating Imaging into Musculoskeletal Practice

Sharon Morgans and Cathy Barrett (Shoulder), Jessica Gent (Knee), Chris Mercer (Spinal)

The integrating imaging into MSK Practice can be taken as a three day course covering the shoulder, knee and lumbar spine. It can also be taken as one day stand-alone courses if only one specific area is needed by a participant. For new advanced practitioners or those moving into First Contact roles, ideally all three days would be encouraged.

Each 1-day course is aimed at clinicians wanting to learn more about requesting and basics of interpreting musculoskeletal imaging and how to utilise for better patient care in practice. This includes new APPs, those in FCP roles with a desire to learn about specific body areas in more detail and senior MSK clinicians with limited or no radiology background. We have also had feedback from those in AP roles moving in to new areas that this course was of benefit. This is currently run virtually with interactive elements such as polls, chat, case studies and plenty of time to ask questions at any point during the day to facilitate participant's learning.

The days include:

- Understanding requesting, interpretation and competency. Requesting and looking at X-rays, MRIs and where appropriate USS/CT. Case study based- teaching, orientation, normal, normal variants, pathological images, evidence base of imaging and how to utilise it to enhance your existing clinical reasoning & patient care.

Learning Objectives

By the end of the course(s) you will:

- Know the indication for requesting basic imaging for the areas you have studied including lumbar spine, knee and shoulder
- Have a structured method of looking at these images
- Understand where imaging plays a role clinically and pit falls and advantages in the use of imaging and patient care
- Have an understanding of what is normal and what is abnormal in these images
- Have an idea of resources to help you develop your skills
- Discuss how you interpret imaging, imaging reports and how you discuss this with your MSK patients

You will not:

Be legally qualified to request radiology

Be legally covered to interpret radiological examinations or write imaging reports

Know everything about imaging these anatomical areas

Presenters



KNEE DAY

Jessica Gent Msc MMACP CSP SRP

Advanced Practice Physiotherapist, Clinical Lead for First Contact MSK Roles, Independent Prescriber

Jessica has been working in advanced MSK practice for 15 years with experience in orthopaedics elective care, community MSK pathways, primary care and first contact as well as the private sector. She has initiated and supported development of best practice guidelines for image requesting and interpretation within these roles and has a passion for the evidence base being explored for this area for the benefit and patient care as well as person centred care. She has been teaching on post graduate courses for that time including guest lecturing for MSK Msc courses at Coventry, UCL and Brighton universities. Coventry, UCL and Brighton universities.



LUMBAR SPINE DAY

Chris Mercer MSc FMCSP FMMACP

Consultant Physiotherapist, Western Sussex Hospitals NHS trust.

Chris has an interest in serious spinal pathology and advanced physiotherapy practice, which is fortunate as it takes up a lot of his time! He is currently clinical lead for the MSK service and Spinal Clinic and also working in the NHS England Behaviour Change unit as a Clinical lead. He is current co-chair of the National Physiotherapy Consultant Group.

SHOULDER DAY

Cathy Barrett MCSP BSc (Hons) Mphys MMACP FACP



Specialist Physiotherapist

Cathy is a Lecturer at University College London (UCL) and leads the Upper Quadrant module of the MSK MSC. Additional MSc teaching modules include Paediatric and Adolescent Sports Physiotherapy (UCL), Integrating imaging into advanced practice roles (Coventry University and MACP) and Advanced Shoulder Practice (KCL). She also works in Private Practice as a shoulder specialist associated with Central Health Physiotherapy and the London Hypermobility Unit. Specific clinical interest lies in Shoulder Instability, elite adolescent shoulder and arm pain, complex upper quadrant pain presentations and rehabilitation. Cathy is a Fellow of the Australian Physiotherapy Association by Specialisation Examination since 2010.

Between 1998 and 2012 Cathy was lead Orthopaedic Physiotherapy Practitioner at St Mary's Hospital, Imperial College Healthcare Trust, London, where she was the Clinical specialist in the Shoulder Unit and responsible for the training and assessment of Advanced Practice roles across orthopaedics. Cathy works closely with Shoulder Surgeons throughout the UK, attends Radiology-led MDTs and frequently lectures alongside shoulder surgeons at National and international conferences and webinars. Cathy was previously club physiotherapist to Saracens RFC and Company Physiotherapist to Birmingham Royal Ballet and Rambert Dance Company. Current Research; Risk factors for shoulder pain in elite adolescent tennis players



Sharon Morgans Grad Dip MCSP MMACP SRP

Sharon divides her time working as the clinical lead and Trustee for The Pain Exchange, a charity for people who live with persistent pain, studying for a Masters in Pain Management at UCL and working in private practice as an upper limb specialist. She previously worked as an upper limb ESP at Imperial NHS healthcare Trust. Her particular interest is the persistently painful shoulder and she continues with her interests in research in a clinical advisory role at Imperial College and as a clinician in MDT meetings for the problem shoulder at the Fortius Clinic.

Information for venues:

The cost for the participant will be:

EACH day: members £120 for MACP member & non-member £150

Hence 2 days: members £240 for MACP member & non-member £300

Hence 3 day course: members £360 for MACP member and non-member £450

This is the cost for 2021 and will be reviewed annually.

- There is one free place available to whoever organises the course locally. In addition a further free place will be offered for courses that book more than 30 delegates.
- If a venue fee is incurred the minimum number of people required to run the course may increase. The minimum number of delegates required to qualify for an additional free place may also increase.
- The course requires a minimum of 22 bookings to enable the MACP to cover expenses and will be cancelled 6 weeks prior to the commencement of the course if this number has not been reached.
- If the course requires air travel (outside England) for the lecturers the prices quoted / number of bookings required will need to be adjusted to reflect the additional costs.

What the MACP Provides:

- Tutors for delivering the courses
- Pays the accommodation for the tutor(s)
- Pays tutors(s) travel
- Administers the course, taking all bookings and sending all applicants pre-course information.
- £3 per person / day to cover refreshments (tea/coffee/biscuits etc).
- Advertising in: MACP website and social media sites, MACP newsletters.
- One copy of a flyer that you may use to circulate and advertise the course
- A list of names of those who have booked prior to the course for registration.
- CPD certificates (online)

You will need to provide:

- A lecture theatre/ large room that will seat 40 people
- AV equipment (data projection or overhead projector). Plus access to plugs as workbooks are electronic.
- Provide us with local information re directions how to get to venue, parking, local accommodation list.
- Someone to work on local promotion (including SoMe) to help to ensure that at 6 weeks before the course, the minimum numbers of places are booked onto the course.
- Someone on the on the day to deal with local venue organization (AV, putting up signs, providing refreshments, information about where to get lunch, registering delegates, locking up, this may also include picking up or dropping off tutors from their hotel; taking pictures on the day for SoMe)
- Refreshments as appropriate (to be reimbursed by MACP on production of original receipts – up to £3 per day per person)

PRE-COURSE PREPARATION

1. Anatomy of the relevant region eg shoulder complex, knee and spine
2. Common pathologies affecting the region, their clinical presentations and their time frame for recovery. A good patient mileage in MSK management of the area.
3. Awareness of management pathways for common conditions

Learning Outcome	Delivery Method (S)	RoadMap Capability
INTRO LECTURE		
1.To understand the legal framework with respect to requesting and interpreting of radiological investigations	Interactive Lectures Pre and post course reading	B5
2. To understand the responsibility of a requester including A; Exposure to ionising radiation, B; awareness of indications and contra-indications for MRI C; Adequate information on requesting form D; To act on the Imaging results	Interactive Lectures Pre and post course reading Clinical reasoning through case studies	B 3 4 5 C 11.12,13
3. To understand the role of Imaging in the workup of a patient's diagnosis and management both beneficial and negative effects as well as communicating imaging findings	Interactive Lectures Pre and post course reading Clinical reasoning through case studies Shared delegate experience	A1 B 3,4,5, C 11,12, 13 D14,
COURSES		
1.To Understand The Role of Imaging (XR, MR, US and CT) in the evaluation and management of MSK pain and how this fits into the biopsychosocial model	Interactive Lectures Pre and post course reading Clinical reasoning through case studies Shared delegate experience	A1,2 B 3, 4, 5 C6,7, 8, 9, 10, 11, 12, 13 D14
2.To Understand the different views in XR and MR and which tissues can be viewed anatomically	Interactive Lectures Post course study Clinical reasoning through case studies Shared delegate experience	B5
3.To recognise Normal Anatomy and Normal variants on XR and MR	Interactive Lectures independent study	B5

4.To recognise ABNORMAL findings on XRAY and MRI and interpret these in the context of the clinical presentation	Interactive Lectures independent study Clinical reasoning through case studies	A2 B3,4,5 B5
5.To understand the indications, advantages and limitations in the use of US and CT (Shoulder) in diagnosis and management of common MSK problems	Interactive Lectures independent study Clinical reasoning through case studies	B3,4 B5
6 To understand the appropriate timing and selection of investigations and be able to reason and justify with patients and colleagues and the role of patient choice and pressures to image or not image request	Interactive Lectures independent study Clinical reasoning through case studies Shared delegate experience	A1, A2, B3, B4, B5 C13
7. Be able to convey the differential diagnosis and implications for management to enable informed choice about imaging and shared decision making with the patient.	Interactive Lectures independent study Clinical reasoning through case studies Shared delegate experience	A1,2, B5
8. To understand the relationship between pathology, clinical presentation and radiological findings in MSK conditions; within the current evidence available	Interactive Lectures independent study Clinical reasoning through case studies Shared delegate experience	A1,A2, B3,B4, B5, D14
9 To understand how the imaging process and findings inform the patient management pathway including rehab, injection therapy, surgical intervention and patient self-activation.	Interactive Lectures independent study Clinical reasoning through case studies Shared delegate experience	B3, B4, B5, D14 C6 C7 C9 C11, C12 C13c
10.To understand when a patient needs to be referred to other colleagues in response to their imaging findings or clinical presentation.	Interactive Lectures independent study Clinical reasoning through case studies Shared delegate experience for local relevance	A1, A2, B3,4,5, C8, C9, c10, C11, C12, C13, D14

11. To be aware of how to consolidate knowledge and develop the above skills in the clinical context to develop competency as a requester	e.g Discussion, MDTs, online resources, peer review, independent study expected (3 hours) and building of own portfolio	B3, B4, B5, D14 C6 C7 C9 C11, C12 C13c
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Quick Reference for FCP Capability;

A 1 Communication. A2 Person-centred care

B 3History taking B4 Physical Assessment B5 Ix and diagnosis

C6 prevention and lifestyle Interventions C7 Self-management and behaviour change

C8 pharmacotherapy C9 Injection therapy C10 surgical interventions

C11 rehab interventions and care planning

C12 Interventions and care planning

C13 referrals and collaborative working

D14 EBP and service development

APPENDIX 1: Shoulder Conditions;

1. Rotator Cuff related pain and Sub acromial pain including calcific tendonitis
2. Gleno-Humeral Joint Instability
3. OA/inflammatory joint conditions
4. Stiff shoulder
5. Acromio-Clavicular Joint /Sterno-Clavicular Joint conditions
6. Red flag

APPENDIX 2: Lumbar Spine

1. Degenerative disc and joint changes
2. Sponyloarthopahy
3. Osteoporosis
4. Disc disease
5. Metastatic disease
6. Infection
7. Other causes such as soft tissue/visceral

APPENDIX 3: Knee

1. Low grade/sporting trauma (we will not cover cases for a specific fracture clinic setting but those seen presenting to primary care or community/elective orthopaedics & MSK)
2. Meniscal pathology in younger and middle aged+ adults
3. Soft tissue ligament and patellofemoral injury and pain
4. Osteoarthritis and the role of imaging (or not) in person centred care including repeat imaging indications
5. Normal loading/abnormal bone conditions
6. Bone tumour and metastatic disease cases and learning
7. Pressures and influences both external and internal on your image requesting
8. Ensuring we use imaging to effective person centred care.