

Shoulder

MRI Protocols of the ESSR Arthritis Subcommittee



Recommendations of the ESSR Arthritis Subcommittee for the Use of Magnetic Resonance Imaging in Musculoskeletal
Rheumatic Diseases. Semin Musculoskelet Radiol 2015;19:396–411

Acronyms

Ax= axial

CE= contrast enhanced

Cor= coronal

FOV= field of view

FS= fat suppressed

PD= proton density

Sag= sagittal

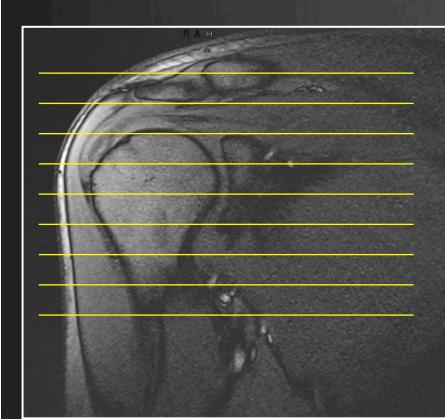
TE= echo time (ms)

TR= repetition time (ms)

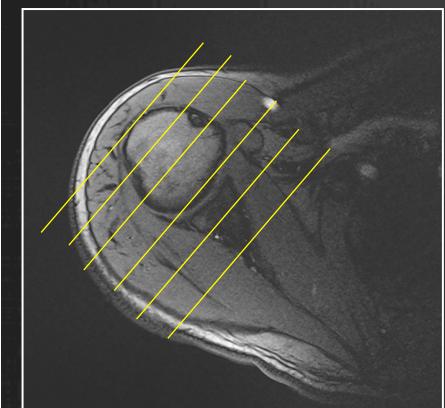
MRI scan

- Patient in supine position
- Shoulder coil
- The arm alongside and parallel to the body in neutral to slight external rotation
- Coronal oblique images parallel to the supraspinatus tendon
- Glenohumeral and acromioclavicular joints are included

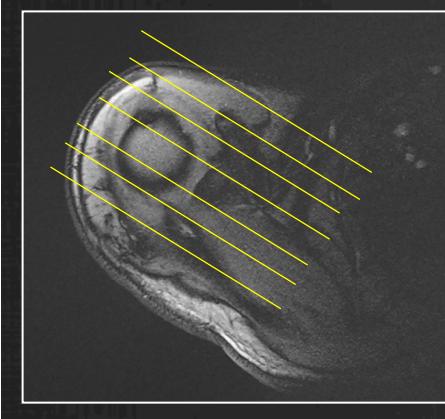
Localizer



Axial plane: from the acromioclavicular joint to two slices below the inferior glenohumeral ligament

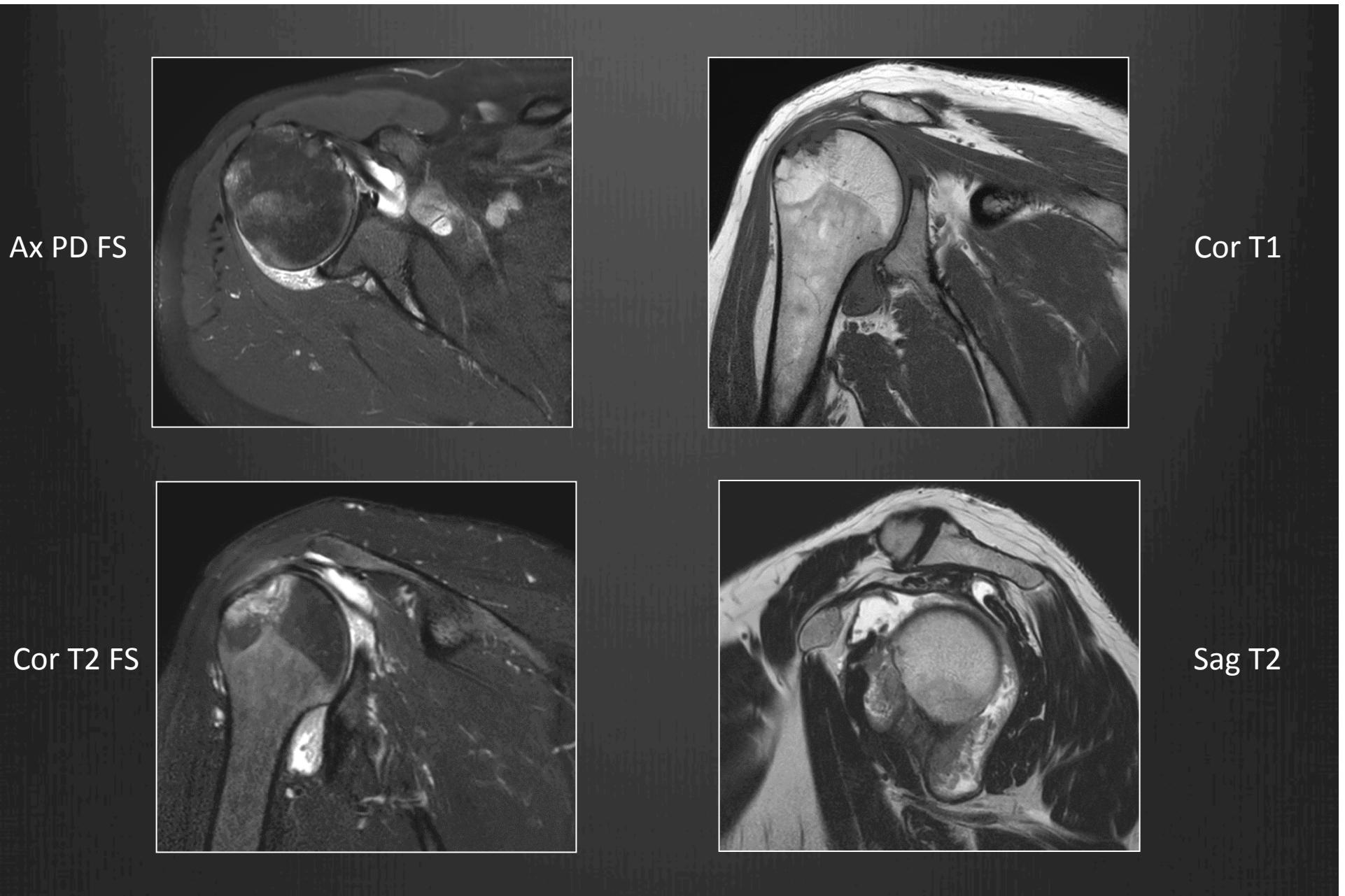


Sagittal plane: from the deltoid muscle to two slices medial to the glenoid

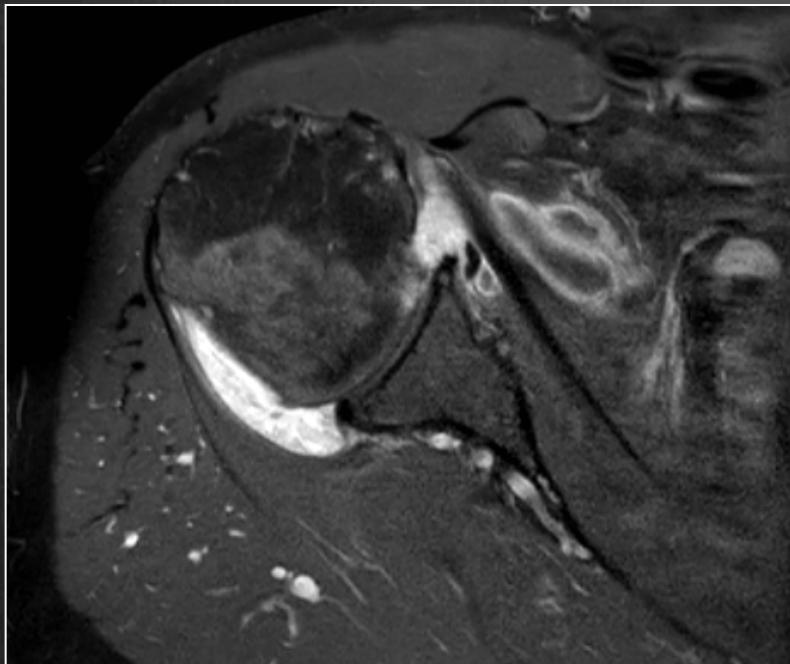


Coronal plane: from the anterior margin of the coracoid process to two slices posterior to the humeral head

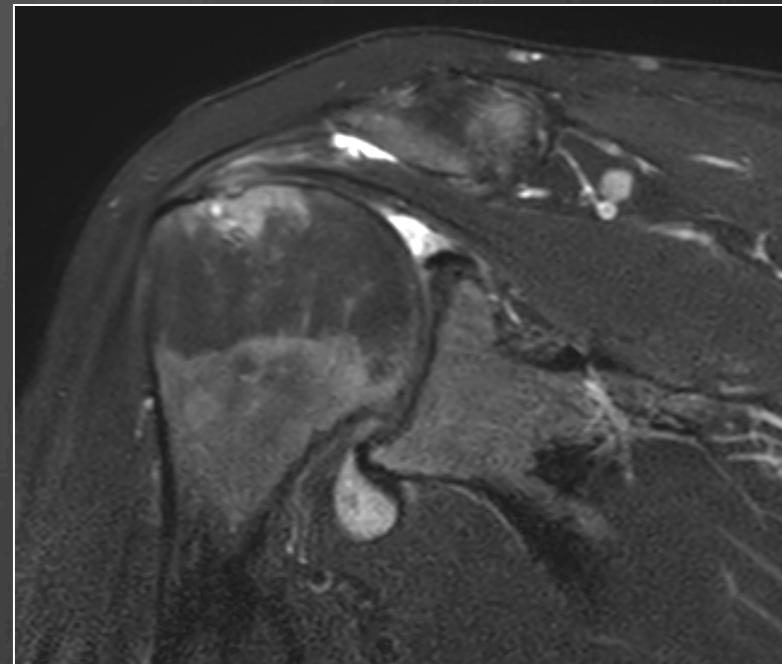
Recommended sequences



Recommended sequences



CE axial T1 FS



CE cor T1 FS

MRI protocol

	FOV (mm)	Slice (mm)	TR (ms)	TE (ms)	Matrix
Ax PD FS	180	3	2500-5000	10-30	300 x 250
Cor T1	180	3	450-650	10-20	300 x 250
Cor T2 FS	180	3	3000-5000	60-100	300 x 250
Sag T2	180	3	3000-5000	60-100	300 x 250
CE T1 FS*	180	3	450-650	10-20	300 x 250
Cor PD (optional)	180	3	3000	30	300 x 250

* if optimal assessment of synovitis/osteitis is needed

Contributors

- Anna Zejden, Denmark
- Andrea Klauser, Austria
- Patrick Omoumi, Switzerland
- Vittorio Pansini, Italy

Project Coordinators

- Chiara Giraudo, Italy
- Hannes Platzgummer, Austria