Knee

MRI Protocols of the ESSR Arthritis Subcommittee
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 with feet first
- Knee coil
- Immobilise the knee with cushions
- Three-plane localizer
Localizer

Axial plane: parallel to the knee joint line

Sagittal plane: parallel to the medial facet of lateral condyle

Coronal plane: parallel to posterior facets of the femoral condyles
Recommended Sequences

- Sag PD FS
- Cor PD FS
- Ax PD FS
- Cor T1 (or Sag T1)
Recommended Sequences

Sag T1 FS CE
## MRI protocol

<table>
<thead>
<tr>
<th>Recommended Sequences</th>
<th>FOV (mm)</th>
<th>Slice thickness (mm)</th>
<th>TR (ms)</th>
<th>TE (ms)</th>
<th>Matrix</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sag PD FS</td>
<td>160</td>
<td>3</td>
<td>3570</td>
<td>39</td>
<td>288x384</td>
</tr>
<tr>
<td>Cor PD FS</td>
<td>160</td>
<td>3</td>
<td>3570</td>
<td>39</td>
<td>288x384</td>
</tr>
<tr>
<td>Ax PD FS</td>
<td>160</td>
<td>3</td>
<td>3570</td>
<td>39</td>
<td>288x384</td>
</tr>
<tr>
<td>Cor T1 (or Sag T1)</td>
<td>180</td>
<td>3</td>
<td>470</td>
<td>13</td>
<td>358x512</td>
</tr>
<tr>
<td>CE T1 FS*</td>
<td>180</td>
<td>3</td>
<td>470</td>
<td>13</td>
<td>358x512</td>
</tr>
</tbody>
</table>

*if optimal assessment of synovitis/osteitis is needed*
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