Guidelines for MR Imaging of Sports Injuries

European Society of Skeletal Radiology
Sports Sub-committee

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Abbreviations and clarifications

- Ax = axial
- Cor = coronal
- Sag = sagittal
- FOV = field of view
- PD = proton density
- TE = time to echo in milliseconds
- FS = fat suppressed
- Int = intermediate
- Int FS: this is a fat suppressed sequence with a long TR and a TE between that of a traditional PD (e.g. TE= 10-20) and a traditional T2 (e.g. TE=80-100). The advantage of this sequence is that the TE is short enough to maintain sufficient signal for visualisation of the anatomy (like a PD) yet long enough to be more fluid sensitive (like a T2)
- For STIR sequence, TI (inversion time) should be 140-150 at 1.5T
Knee

- Patient in supine position - use dedicated knee coil
- Axials parallel to knee joint line - include whole patella and fibular head
- Coronals parallel to posterior aspect of femoral condyles - include entire patella to 2 cm posterior to femoral condyles
- Sagittal obliques parallel to medial aspect of lateral condyle - include both collateral ligaments
# Knee

<table>
<thead>
<tr>
<th></th>
<th>FOV (max)</th>
<th>Slice (max)</th>
<th>TE</th>
<th>Matrix (min)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ax Int FS</td>
<td>16 cm</td>
<td>4 mm</td>
<td>40-50</td>
<td>256x256</td>
</tr>
<tr>
<td>Cor Int FS</td>
<td>18 cm</td>
<td>4 mm</td>
<td>40-50</td>
<td>288x288</td>
</tr>
<tr>
<td>Cor T1</td>
<td>18 cm</td>
<td>4 mm</td>
<td>min</td>
<td>288x288</td>
</tr>
<tr>
<td>Sag Obl Int FS</td>
<td>16 cm</td>
<td>4 mm</td>
<td>40-50</td>
<td>288x288</td>
</tr>
<tr>
<td>Sag Obl PD</td>
<td>16 cm</td>
<td>4 mm</td>
<td>20-30</td>
<td>288x288</td>
</tr>
<tr>
<td>Cor Obl PD</td>
<td>16 cm</td>
<td>4 mm</td>
<td>20-30</td>
<td>288x288</td>
</tr>
</tbody>
</table>
Knee

Ax Int FS

Cor Int FS

Cor T1

Sag Obl Int FS

Sag Obl PD

Cor Obl PD