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
Elbow

- Patient in prone position with arm overhead
  - if not tolerated, put patient in supine position with arm at side
- Axials include volume from above epicondyles to below radial tuberosity
- Coronals include entire elbow, skin to skin, parallel to intercondylar line
- Sagittals include entire elbow, skin to skin, 90° to intercondylar line
# Elbow

<table>
<thead>
<tr>
<th></th>
<th>FOV (max)</th>
<th>Slice</th>
<th>TE</th>
<th>Matrix (min)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ax PD</td>
<td>14 cm</td>
<td>4 mm</td>
<td>20-40</td>
<td>256x256</td>
</tr>
<tr>
<td>Ax Int FS</td>
<td>14 cm</td>
<td>4 mm</td>
<td>30-50</td>
<td>256x256</td>
</tr>
<tr>
<td>Cor T1</td>
<td>14 cm</td>
<td>4 mm</td>
<td>min</td>
<td>256x256</td>
</tr>
<tr>
<td>Cor Int FS</td>
<td>14 cm</td>
<td>4 mm</td>
<td>30-50</td>
<td>256x256</td>
</tr>
<tr>
<td>Cor GRE (optional)</td>
<td>14 cm</td>
<td>2 mm</td>
<td>min</td>
<td>256x256</td>
</tr>
<tr>
<td>Sag Int FS</td>
<td>14 cm</td>
<td>4 mm</td>
<td>30-50</td>
<td>256x256</td>
</tr>
</tbody>
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