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
Spine

- Patient in supine position
- Sagittals include neural foramina and facet joints
- Axials include the pathology, if necessary, perform para-axials
- Axial STIR is optional
- Coronals include the region of interest of the spine + SI joints
### Spine

<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>Sag T1</td>
<td>38 cm</td>
<td>3 mm</td>
<td>8-10</td>
<td>424x300</td>
</tr>
<tr>
<td>Sag T2</td>
<td>38 cm</td>
<td>3 mm</td>
<td>90-100</td>
<td>424x300</td>
</tr>
<tr>
<td>Axial T2</td>
<td>32 cm</td>
<td>3 mm</td>
<td>90-100</td>
<td>320x166</td>
</tr>
<tr>
<td>Cor STIR</td>
<td>39 cm</td>
<td>3 mm</td>
<td>75-100</td>
<td>528x528</td>
</tr>
<tr>
<td>Sag STIR</td>
<td>38 cm</td>
<td>3 mm</td>
<td>75-100</td>
<td>424x300</td>
</tr>
<tr>
<td>Axial STIR (optional)</td>
<td>22 cm</td>
<td>3 mm</td>
<td>75-100</td>
<td>384x256</td>
</tr>
</tbody>
</table>