

## Supplementary Appendix

Supplement to:

“Complete resolution of a hamstring intramuscular tendon injury on MRI is not necessary for a clinically successful return to play”

## Appendix A:

Inclusion criteria (Adapted from Reurink et al.<sup>11,12</sup>)**Supplementary Table 1:** Eligibility criteria

Inclusion criteria	
<p><i>Dutch cohort</i></p> <ul style="list-style-type: none"> <li>- Age 18 – 50 years</li> <li>- Clinical diagnosis acute hamstring injury</li> <li>- Baseline MRI within five days from injury</li> <li>- MRI confirmed grade I or II hamstring lesion (according to Peetrans classification<sup>15,16</sup>)</li> <li>- Cleared for RTP</li> <li>- Second MRI available within seven days of RTP</li> <li>- Baseline MRI confirmed intramuscular tendon injury, defined as a partial or complete loss of low signal intensity within the intramuscular tendon.</li> </ul>	<p><i>Qatar cohort</i></p> <ul style="list-style-type: none"> <li>- Age 18-50 years</li> <li>- Acute onset of posterior thigh pain</li> <li>- Baseline MRI within five days from injury</li> <li>- MRI confirmed grade I or II hamstring lesion (according to Peetrans classification<sup>15,16</sup>)</li> <li>- Sex: male</li> <li>- Able to perform five sessions of physiotherapy a week</li> <li>- Available for follow-up</li> <li>- Cleared for RTP</li> <li>- Second MRI available within seven days of RTP</li> <li>- Baseline MRI confirmed intramuscular tendon injury, defined as a partial or complete loss of low signal intensity within the intramuscular tendon.</li> </ul>
Exclusion criteria	
<ul style="list-style-type: none"> <li>- Contraindication to MRI</li> <li>- Chronic hamstring injury</li> <li>- Chronic low back pain</li> <li>- Cause of injury is an extrinsic trauma</li> <li>- Not capable of performing rehabilitation</li> <li>- No intention to return to full sports activity</li> <li>- Unwilling to receive the intramuscular injections</li> <li>- Injection therapy received for this injury before</li> </ul>	<ul style="list-style-type: none"> <li>- Contraindication to MRI</li> <li>- Re-injury or chronic hamstring injury</li> <li>- Concurrent other injury inhibiting rehabilitation</li> <li>- Unwilling to comply with follow-up</li> <li>- Needle phobia</li> <li>- Overlying skin infection</li> <li>- Diabetes, immune-compromised state</li> <li>- Medication increasing bleeding risk (e.g. Plavix)</li> <li>- Medical contraindication to injection</li> </ul>
RTP: return to play	

#### MRI Protocols (Adapted from Reurink et al.<sup>11</sup>)

For the Dutch RCT, first coronal and sagittal short-tau inversion recovery (STIR) images from the ischial origin of the hamstring muscles to insertion on the fibula and the tibia (repetition time/echo time (TR/TE) of 3500/31 ms, field of view (FOV) of 300 mm and a 256×320 matrix) were obtained. Transversal STIR (TR/TE of 3500/31 ms, FOV of 300 mm and a 205×256 matrix), T1-weighted (TR/TE of 500/12 ms, FOV of 300 mm and a 355×448 matrix) and T2-weighted (TR/TE of 4080/128 ms, FOV of 300 mm and a 355×448 matrix) images were obtained from the injured area. Slice thickness for all sequences was 5 mm. MRIs were obtained with a 1.5-T magnet system (Magnetom Essenza, Siemens) with the use of a body matrix coil. In the Qatar RCT, MRIs were obtained of the hamstring muscles with a 1.5-T magnet system (Magnetom Espree, Siemens) with the use of a body matrix coil. First coronal and transversal fast-spin echo proton density (PD) weighted images (TR/TE of 3000/32ms, FOV of 240 mm, slice thickness of 5 mm and a 333×512 matrix) were obtained. Subsequently coronal and transversal fast-spin echo PD fat saturation (PD-FS) images (TR/TE of 3000/32ms, FOV of 240 mm, slice thickness of 3.5 mm, a 326×512 matrix for the coronal images and TR/TE of 3490/27ms, FOV of 320 mm, slice thickness of 3.5 mm, a 333×512 matrix for the transversal images) were obtained.