

Project scope: Esaote extremity MRI scanners

July 2025

Research question

What is the clinical effectiveness, cost effectiveness and safety of Esaote extremity magnetic resonance imaging (MRI) scanners compared with traditional high-field MRI scanners in diagnostic imaging for musculoskeletal (MSK) and orthopaedic conditions?

Inclusion criteria

The selection of studies for inclusion in the literature review element of the project will be based on the following criteria:

Setting	<ul style="list-style-type: none"> • general clinical settings where extremity MRI scanners are required, including outpatient, radiology, orthopaedic and community settings.
Population	<ul style="list-style-type: none"> • adults (≥ 18 years) referred for MSK and orthopaedic diagnostic MRI imaging of the peripheral joints (wrists, elbows, ankles, and knees), ligaments, bones, and tendons of the upper and lower extremities (limbs).
Comparator	<ul style="list-style-type: none"> • 1.5 T and 3T high-field MRI Scanners (for example, the existing MRI Scanners)
Outcomes	<ul style="list-style-type: none"> • diagnostic accuracy and clinical utility • service improvement (impact on diagnostic waiting times, increased diagnostic yield, speed of reporting turnaround time, reduction in clinic appointments) • improved equity of access • other outcomes as reported in the literature including any financial savings, resource utilisation, environmental impact (incl. electricity usage), patient experience and staff experience.

Planned activities

SHTG have agreed on the following activities to support the development of an SHTG IMTO:

1. A comprehensive search of the literature

2. A review and summary of the evidence base
3. An exploratory cost/resource comparison

End products

At the end of the project, SHTG will publish:

- An SHTG IMTO

Timescales (approximate)

November 2025