The imaging modality of choice for patients with a suspected scaphoid fracture who have normal initial radiographs: a UK-wide audit.

M.H. Chunara, C.M. McLeavy, V. Kesavanarayanan, D. Paton, A. Ganguly.

METHODS
A survey monkey questionnaire was sent to 140 eligible NHS trusts derived from the NHS England database following exclusion of all non-acute and specialist centres.

Four questions were asked regarding:
1. The provision of MRI for radiographically-occult scaphoid fractures
2. Time-to-MRI
3. Number of departmental MR scanners
4. Alternative imaging offered.

RESULTS
Responses were received from 74 trusts (53%).
38 offered MRI as a first-line test in plain-film occult scaphoid injury, 25 preferred CT and 11 opted for repeat plain radiographs.

Of the 38 trusts who offered MRI, 26 provided this within 1 week; the rest within 2 weeks.
No trends were identified based on the size of the hospital or its geographical location.

Statistical analysis of the data revealed no significant relationship between the number of MR scanners and the provision of MRI, nor between the numbers of MR scanners and the time-to-MRI.

DISCUSSION
MRI
- Gold standard
- Highly-specific
- Highly-sensitive
- Cost-effective
- Reduced clinic visits
- Detect soft tissue pathology
- Avoid premature casting
- Cheap when limited extremity scanners used

Yet only 51% of trusts provide this service in the UK.

CT
- Remains a very accurate and reliable alternative
- Better for fracture displacement
- Pre-surgical planning
- Cheaper and faster when compared to MRI.

Fig 1. Pictorial representation of the tenuous scaphoid blood supply involving retrograde filling of the proximal pole. Image created by M.H. Chunara