

Long-term Outcomes of Pyrocarbon Shoulder Hemiarthroplasty

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Type	Service Evaluation
Specialty	orthopaedics
Trust	Guy's and St Thomas' NHS Foundation Trust
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Background

Pyrocarbon shoulder hemiarthroplasty is a bearing surface option for younger patients with glenohumeral osteoarthritis, offering theoretical advantages over metal-on-polyethylene arthroplasty through its elastic modulus properties. While short-term outcomes have been reported, long-term clinical and radiological data from UK cohorts remain limited. GSTT has performed pyrocarbon shoulder hemiarthroplasties since 2014, and a formal review of long-term outcomes was undertaken in collaboration with University Hospitals Sussex.

Aims

To assess the long-term clinical, radiological, and patient-reported outcomes of pyrocarbon shoulder hemiarthroplasty performed at GSTT.

Objectives

1. Identify all patients who underwent pyrocarbon shoulder hemiarthroplasty at GSTT since 2014. 2. Invite patients to complete Oxford Shoulder Score and VAS pain questionnaires. 3. Review post-operative radiographs for implant positioning, signs of loosening, and glenoid erosion. 4. Report survival analysis and revision rates, benchmarking against published pyrocarbon outcome data.

Guidelines

National Joint Registry reporting standards; published shoulder arthroplasty outcome benchmarks

Keywords

shoulder hemiarthroplasty, pyrocarbon, glenohumeral osteoarthritis, Oxford Shoulder Score, arthroplasty outcomes