Scottish Arthroplasty Project

A summary of procedures and outcomes for patients undergoing arthroplasty operations during 2012-2013

About this Release

This report presents information for the numbers of arthroplasties (joint replacement) and subsequent medical complications (including surgical revision) resulting from procedures during the period 2012-2013. It also presents an update on clinical governance undertaken through the Scottish Arthroplasty Project and ISD.

Key points

- The number of NHS hip and knee arthroplasty operations in Scottish hospitals has continued to show an increase over the past 7 years. There were 7609 primary hip and 7169 primary knee arthroplasties performed in 2013 (Section 1.1).

- The number of NHS knee revision operations in Scottish hospitals has decreased from 567 to 463 during the period 2009 to 2013. The number of NHS hip revision operations has decreased from 986 to 953 over the same period. However the trend for hip revision over a longer time period shows an increase in the number of cases.

- The percentage of NHS hip revision operations undertaken as non-elective cases has increased from 23.3% to 27.6% between 2009 and 2013.

- A significant number of arthroplasty operations are being performed outwith patients’ NHS Health Board of residence (Section 1.2).

- A relatively high number of NHS hip and knee revision operations are carried out by consultants who perform low volumes of these operations (Section 1.3).

- The average age of patients undergoing NHS hip arthroplasty, knee arthroplasty or hip or knee revision operations has continued to decrease since 2009 (Section 2.1).

- The average length of inpatient stay when undergoing NHS hip or knee arthroplasty continues to decrease from 10 days in 2001 to 5 in 2013 (Section 3.1).

- The incidence of death (as a recorded complication within 90 days) following NHS hip or knee arthroplasty is less than 0.5% (Section 4).

- The rates of major orthopaedic complications (dislocation, infection and DVT/PE within one year) are all less than 1.5% (Section 4).

- The rate of acute renal failure within 30 days following NHS hip arthroplasty has increased over the period 2004-2013 from 0.47% to 0.78%. The rate of acute renal
failure within 30 days following NHS knee arthroplasty has increased over the same period from 0.39% to 0.75%.

- The rates of revision within 5 years of NHS hip arthroplasty remain below 2.6% and below 2.8% for revision within 5 years of NHS knee arthroplasty (Section 5).
- The quality (response incidence, timeliness, content of review and action plan) of responses to the SAP by “complication outlier” surgeons continues to improve and demonstrates their active engagement with the SAP audit process (Section 6).

**Background**

The Scottish Arthroplasty Project (SAP) analyses hospital inpatient information to link joint replacement surgery (arthroplasty) patients with subsequent medical complications resulting from each operation. Hip and knee replacements are by far the most numerous type of arthroplasty carried out in Scotland although a range of other joint replacements are performed.

Operations and subsequent complications are routinely monitored and any causes for concern (where the rate of incidence of complications rises above an agreed level) are notified to the care team involved. They then review each complication involved, and submit their review and proposed remedial action (if required) for appraisal by the clinical members of the SAPSC. Engagement by the orthopaedic surgery community with the clinical governance process is, with minor exceptions, excellent and data provided by SAP routinely used for surgeon appraisal and revalidation.

The SAP is administrated by the Information Services Division (ISD) of National Services Scotland (NSS), a special NHS Health Board which provides national strategic support services and expert advice to NHS Scotland. The SAP is managed by the Scottish Arthroplasty Project Steering Committee (SAPSC). The SAP is overseen by the Scottish Committee for Orthopaedics and Trauma (SCOT).

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**Further Information**

The full publication report can be found on the [Scottish Arthroplasty Project website](http://www.isd.scot.gov.uk/Artho/).