

Joint Approach

The newsletter of the National Joint Registry

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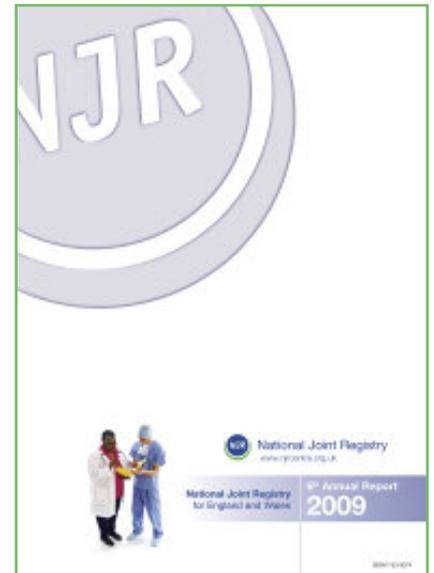
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6th Annual Report Launched

THE 6th NJR Annual Report was launched on the 15th of September at the British Orthopaedic Association's Annual Congress in Manchester.

The key findings of the report were presented to Congress at an extremely well attended session by the surgeon members of the NJR Steering Committee: Professor Paul Gregg, Mr Martyn Porter and Mr Keith Tucker. The Chair of the NJR's Regional Clinical Coordinators' Network, Mr Peter Howard, also presented the latest reports available to surgeons through *NJR Clinician Feedback*. These reports include surgeons' one and three year revision rates, data quality reports, and funnel plots showing comparative revision rates over the life of the NJR.

The Annual Report was very well received and the NJR team on the stand at the exhibition hall was constantly busy over the three days of the Congress, giving surgeons access to their reports on *Clinician Feedback*.



NJR Centre staff at the BOA Congress. From left to right: Dr Claire Newell (Data Manager), David Ellams (Senior Consultant), Sue Campey (Regional Coordinator) and Marian Gibson (Regional Coordinator)



Report Highlights

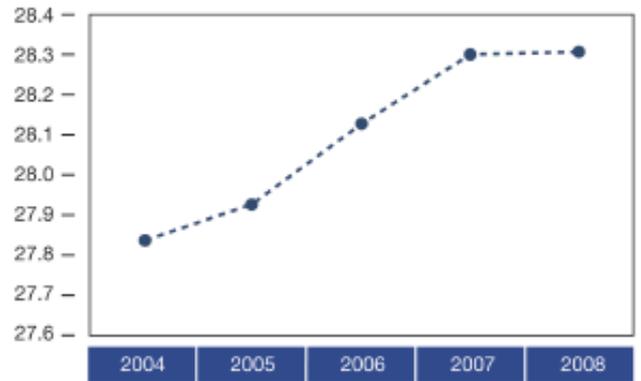
More Operations on Less Healthy Patients

Surgeons are operating on less healthy patients than six years ago, figures in the 6th Annual Report show. The trends indicate that the proportion of patients classified as fit and healthy prior to hip or knee replacement surgery is falling, while their Body Mass Index (BMI) is rising.

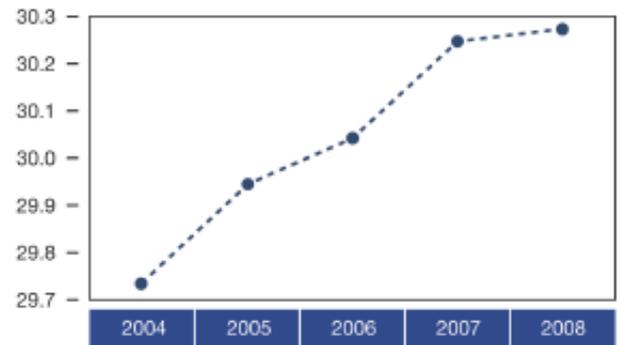
Only 16% of patients were recorded as being fit and healthy prior to a primary knee replacement in 2008, down 50% from 2003. Over the same time period, patients' average BMI rose from 29.7 to 30.3, an equivalent increase in weight of four pounds for a person of average height. The average knee replacement patient is now reported as being clinically obese.

Hip replacements show a similar trend. Only 18% of primary hip replacement patients were recorded as being fit and healthy in 2008, compared with 37% in 2003. Over the same time period, patients' average BMI rose from 27.8 to 28.3, an equivalent increase in weight of three pounds for a person of average height.

Patients' physical condition is graded using the American Society of Anaesthesiology (ASA) system, ranging from 'P1 – Fit and Healthy' to 'P5 – Not expected to survive 24 hours'. Body Mass Index is the weight of the patient in kilograms divided by the height in metres squared.



Body mass index for primary hip replacement patients undertaken between 2004 and 2008



Body mass index for primary knee replacement patients undertaken between 2004 and 2008

Trend Towards Cementless Hips Continues

There is a growing trend towards cementless hip replacements, according to results in the NJR's 6th Annual Report. Despite evidence of superior short term results for cemented total hip replacements, the proportion of procedures using cement continues to fall year-on-year.

As a proportion of all hip replacements undertaken, cemented total hip replacements have fallen from 53% in 2004 to 38% in 2008. Over the same period, cementless procedures have increased from 21% to 33% of the total.

The Annual Report records three year revision rates for cementless total hip replacements (THR), at 2.8%, compared with 1.3% for cemented THR. Hybrid procedures had three-year revision rates of 1.9%. The revision rate is highest for resurfacing procedures, at 4.4%.

"The trend towards cementless hips is not completely unsurprising. Many patients and surgeons have always looked to use new prostheses in the hope they will be better. This trend obviously heightens the importance of the NJR and why we have it. In due course we will really see if the newer prostheses and particularly the uncemented ones will fare better or worse than the traditional cemented THR."

**Mr Keith Tucker, Orthopaedic Surgeon,
NJR Steering Committee**

Knee Revision Rates Depend on Gender

Men have higher revision rates than women for cemented knees, but lower rates for uncemented and unicondylar replacements, analysis for the 6th Annual Report indicates.

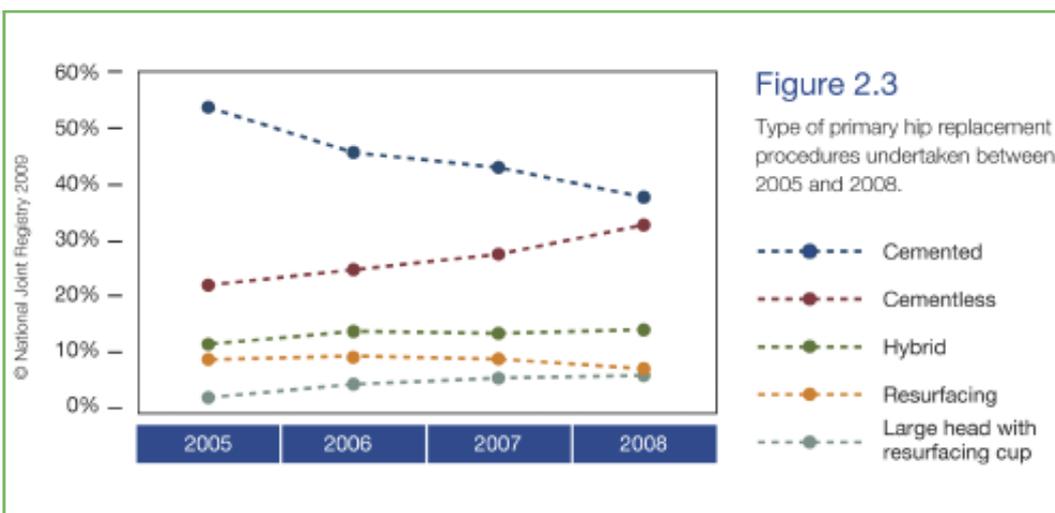
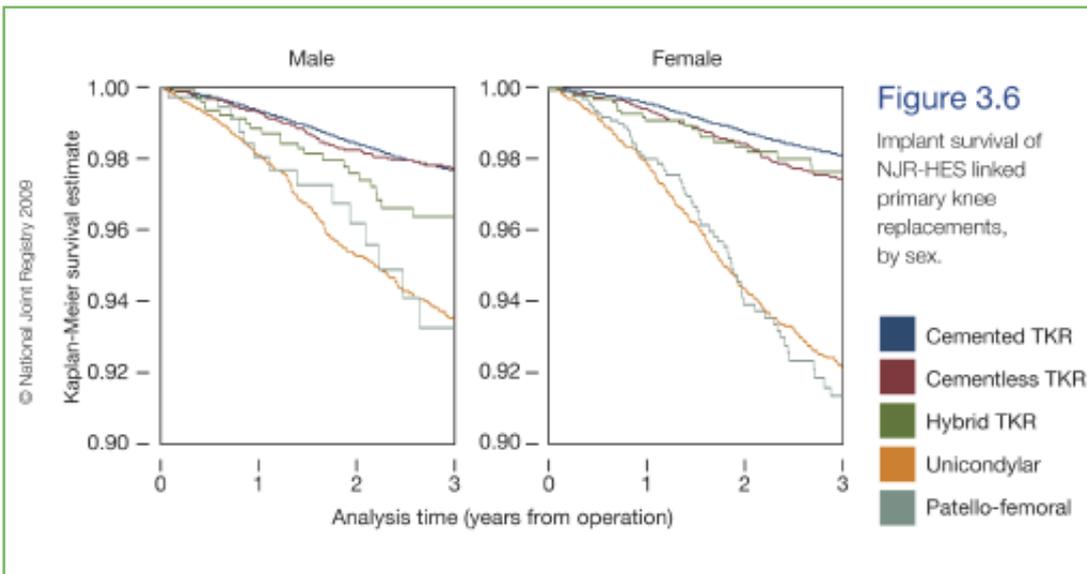
In women, the risk of revision within three years was 3.7 times higher with a unicondylar prosthesis than with a cemented total knee, compared to only a 2.5 times higher risk in men. Patello-femoral replacements showed a similar picture, with an 8.7% revision rate for women, compared with a 6.8% rate for men.

This picture is reversed for cemented total knees. Men had a higher three year revision rate, at 2.3%, than

women, at 1.9%. Overall, three year revision rates were lower in women (2.4%) than in men (2.7%); these differences were far from uniform across different prosthesis types.

Reported revision rates are higher in the 6th Annual Report than in previous reports, due to an improved methodology for linking primary and revision procedures and the use of a wider set of codes in the Hospital Episode Statistics (HES) service. Previously, only primaries in NJR linked to revisions in HES have been used for the analysis and, for the first time, the analysis in this report also includes NJR linked

primaries and revisions. As a result of using a wider set of HES codes and increasing the number of linked primaries and revisions, the three year revision rates are higher (approximately 100% and 65% higher for hips and knees respectively) than those reported in last year's report.



For more detailed information about the figures quoted and how they were calculated, please refer to the Annual Report which is available as a download from the NJR website: www.njrcentre.org.uk

However, no similar trend has emerged for knee operations. Cemented fixation was used in the vast majority of total knee replacements in 2008 and this proportion has not changed significantly over the last five years.

Figures for total knee replacements (TKRs) are 2.4% for cementless fixation, 2.1% for cemented, and 2.9% for hybrid procedures at three years. Unicondylar revision rates had a significantly higher revision rate at 7.2%. The revision rates for patello-femoral replacements stood at 8.3%.

Other Clinical Highlights

- For the third year running, more knee replacements (75,629) have taken place than hip replacements (71,367).
- The overall revision rate following primary hip replacement was 1% at one year, 2% at three years and 2.8% at five years. Three year revision rates were lowest, at 1.3%, for those patients who received a cemented prosthesis and highest, at 4.5%, after hip resurfacing.
- The overall revision rate following primary knee replacement was 0.7% at one year, 2.5% at three years and 3.7% at five years. Three year revision rates were lowest, at 2.1%, for those patients who received a cemented prosthesis and highest, at 7.2%, for those who received a unicondylar knee replacement.
- 4% fewer cup brands and 5% fewer stem brands were used in total hip replacements in 2008, compared to 2007. This is the first time such a reduction has been observed since the NJR began data collection in 2003.
- The use in hip procedures of cemented and cementless stems which fully meet the full 10 year (10a) ODEP benchmark, as recommended by NICE, increased from 70% in 2007 to 74% in 2008. However, the use of cementless cups which meet the full 10a ODEP benchmark has reduced from 16% to 11%, suggesting growing usage of products with shorter term clinical outcomes data.

The full Annual Report, along with further information not included in the printed copy of the report, can be downloaded from the NJR website (www.njrcentre.org.uk)

"Five topics have been chosen for further study. These include an analysis of data quality, outcomes of total hip replacement performed secondary to hip fracture, the effect of hydroxyapatite coating on the outcome of uncemented hip replacement, further analysis of thromboembolic complications and the outcomes of revision hip and knee replacement."

**Mr Martyn Porter, Orthopaedic Surgeon,
NJR Editorial Board Chair**

Ankles Get Go-ahead

The scope of the NJR is to be extended to include ankle replacement surgery. The British Orthopaedic Foot and Ankle Society (BOFAS) is keen to use the NJR to begin monitoring implant performance and clinical outcomes for this less common procedure.

By using the NJR, it will be possible to get a more accurate assessment of the outcomes of ankle replacement surgery. At a time when the volume of these procedures is increasing year on year, it is essential that the monitoring of implants and outcomes starts as early as possible. By using a national dataset, clinicians and implant manufacturers will have a larger evidence base with which to monitor clinical outcomes and patient safety.

The NJR Centre is working closely with BOFAS to define the requirements for the new data entry forms. Data collection for ankle joint replacement surgery will start in 2010, following liaison and training with staff in all affected units. Go-live dates will be announced in a future issue of Joint Approach. Please watch announcements for new developments on the NJR website.

PROMs

The NJR is only able to report on the clinical outcomes of hip and knee joint replacement surgery, while the national Patient Reported Outcomes Measures (PROMs) study is designed to gather information about the surgery from a patient's perspective (patient outcomes). It is planned to link the data held by the NJR with data reported by patients to PROMs, enabling the NJR to feedback information about patient outcomes to individual NHS units. Patient take up of the study has been excellent, with more than 40,000 hip and knee pre-operative questionnaires (Q1) being returned since the beginning of April. A second, post-operative questionnaire (Q2) is sent to patients six months after their joint replacement operation and the first of these have only recently been received. The NJR Steering Committee, as part of its strategic plan, is also considering funding another follow up (Q3) at one year. This will help to further the NJR's aim of creating a very large sample of patients to follow up over longer periods. This will provide clinicians and patients with more complete information about the outcomes of joint replacement surgery.

If you would like to make a contribution to Joint Approach or have suggestions about subjects you would like to see in a future issue, please contact the NJR Helpline or email the Service Desk.

All NJR information and documents are available on the NJR website.

Alternatively, contact the NJR Helpline to receive copies by email or post.

If you have any queries, please contact us.

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