



Audit

Shortcomings of the National Joint Registry: a survey of consultants' views

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Introduction: The National Joint Registry (NJR) for England and Wales was launched in April 2003. The UK Department of Health (DoH) awarded the contract to run the NJR to Atomic Energy Authority (AEA) Technology in September 2002. The aim was to establish the views of a large group of orthopaedic consultants on the new NJR.

Methods: A questionnaire was sent by post to 405 orthopaedic consultants in the Midlands and South West.

Results: Overwhelming support was found for the idea of a national joint replacement register that is used for peer-run audit. However, there was wide-spread concern about the lack of orthopaedic representation on the steering committee. The majority of surgeons have concerns about the possible use of NJR data for the production of league tables.

Key words: National Joint Registry (NJR) – joint replacement – Audit – League tables – Orthopaedic consultants

In April 2003, the National Joint Registry (NJR) was launched. The NJR is a database which is intended to record every total knee and hip replacement carried out in England and Wales. The idea of a NJR is not new. As long ago as 1972, Sir John Charnley wrote: 'serious consideration should be given to establishing a central register to keep a finger on the pulse of total implant surgery on a nationwide basis'.¹ The President of the British Orthopaedic Association (BOA), Sir Rodney Sweetnam, writing in *Health Trends* in 1981, recommended a surveillance scheme of artificial joints.² Joint registries run by orthopaedic surgeons have been operating at a regional level in the UK (e.g. Trent Arthroplasty Audit Group and a similar audit in the North West of England), and at a national level in other countries such as Sweden, Canada and Australia very successfully for many years. In September 2002, the DoH awarded the

contract for running the new NJR to Atomic Energy Authority (AEA) Technology.

Fear has been expressed in the orthopaedic community that the information gathered may be used for government management of joint replacement rather than for auditing surgical practise.¹ Informal discussion between orthopaedic surgeons locally revealed wide-spread concern about the structure of the new NJR. The aim of this study was to canvass opinion on the new NJR from a large group of orthopaedic consultants.

Materials and Methods

A questionnaire was designed by a group of hip and knee surgeons in Derby and Exeter. The questionnaire was sent by post to 405 orthopaedic consultants from the South West

*see Acknowledgements

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Table 1 Audit of joint replacement is essential

	Agree (%)	Undecided (%)	Disagree (%)
Trends in complication rates spotted early and corrected	97	2	1
Peer audit and frank discussion with colleagues is valuable	99	1	0
Clinical audit by non-medical managers not very useful	89	8	3
Surgeons likely to duplicate audit at local level if no confidence in NJR	82	12	6

Orthopaedic Club and the Naughton Dunn Club in the Midlands in January 2003. The questionnaire comprised a series of statements to which the respondent could answer 'strongly agree', 'agree', 'undecided', 'disagree', or 'strongly disagree'.

Results

There were 255 replies, a 63% return rate. For simplicity, the responses of 'strongly agree' and 'agree' and of 'disagree' and 'strongly disagree' were combined and expressed as a percentage of the total number of respondents.

There was overwhelming agreement from orthopaedic consultants that audit of joint replacement is essential (Table 1).

Of respondents, 98% agreed that the NJR should be run by the BOA and that at least half of the steering committee members should be orthopaedic surgeons (Table 2). The great majority of consultants thought league tables would be unreliable for both individual surgeons and for hospitals for a variety of reasons (Table 3). Of surgeons, 88% thought that publication of league tables could have a harmful effect by discouraging surgeons from operating

Table 3 League tables would be unreliable for individual surgeons and hospital complication rates

	Agree (%)	Undecided (%)	Disagree (%)
Many patient risk factors would be overlooked	95	3	2
The severity of most of these risk factors cannot be accurately measured	92	4	4
Evening out these risk factors needs > 500 cases	90	8	2
League tables assume random distribution of patients to surgeons	92	6	2
Patients lost to follow-up at 5 years likely to invalidate results	79	13	8
Lay collation of data likely to lead to misinterpretation	86	9	5

Table 2 Running the NJR

	Agree (%)	Undecided (%)	Disagree (%)
BOA should run the NJR as in Sweden, Canada, Australia	98	0	2
> 50% of steering committee should be orthopods	98	1	1
Ownership of NJR data should lie with the BOA	96	3	1

on high-risk patients so that surgeons would thereby become relatively de-skilled (Table 4). Of surgeons, 89% felt that such high-risk patients would be referred elsewhere and would most likely have to wait longer for operation (Table 4).

Discussion

The 255 consultants taking part in this survey represent a large body of orthopaedic opinion in England and on almost all questions there was greater than 80% agreement. We acknowledge that, as with any questionnaire, the phraseology used may have influenced the responses. However, even accounting for this possible bias, this survey demonstrates some strongly held opinions amongst orthopaedic surgeons.

This survey shows an overwhelming support amongst orthopaedic surgeons for a national peer-run audit of joint replacement. Of respondents, 97% thought that complication rates could be spotted quickly and corrected and 99% thought peer audit and frank discussion with colleagues doing similar procedures would be valuable.

We believe this survey shows there are two major stumbling blocks to success for the new NJR in the UK.

Inadequate orthopaedic representation on the NJR steering committee

There are a number of joint registries in other counties such as Sweden, Norway, Canada and Australia. These are all

Table 4 Harmful effects of league tables

	Agree (%)	Undecided (%)	Disagree (%)
Surgeons become reluctant to operate on risky patients and become relatively de-skilled	88	7	5
Patients increasingly shunted to specialist centres even for minor risks: waiting times there will increase	89	6	5
The more disabled patients will be more disadvantaged with longer waits for surgery	89	7	4

successfully run by their respective national orthopaedic associations and they have generated a huge amount of data useful to orthopaedic surgeons. By contrast, the new NJR in the UK has only four (an increase from two initially) orthopaedic representatives on the steering committee of twenty. Of consultants in our survey, 98% thought that the BOA should run the NJR and that the steering committee should comprise at least 50% orthopaedic surgeons.

Potential use of NJR data for publication of league tables of individual surgeons

The NJR Steering Committee Chairman has said that: 'the DoH has no plans to publish orthopaedic surgeon league tables but it is not possible to guarantee that this will remain the case in the future'.³ This point has since been re-iterated by the DoH representative on the steering committee.⁴ However, over the last 2–3 years, the Government has clearly stated its future intention to publish individual consultant performance league tables.

The report of the public inquiry into children's heart surgery at the Bristol Royal Infirmary recommended 'patients and the public must be able to obtain information as to the relative performance of the Trust and the services and the consultant units within the Trust'.⁵ The Government response from the then Health Secretary Alan Milburn was 'work is under way with the medical profession to extend the number and range of specialties where information on both the consultant's and the unit's comparative performance can be published'.⁶

A number of consumer guides to NHS hospitals and surgeons have already been published, most notably *Dr Foster*⁷ and *The Times/Sunday Times Hospital Guide*.⁸ In November 2001, *The Times* published a table of mortality rates from fractured hip for every NHS hospital called *Where Not to Break your Hip*.⁹ In November 2002, *The Times* published mortality rates for individual vascular surgery units,¹⁰ which in small units almost amount to mortality rates for individual surgeons. The Government has 'forced' the publication of individual surgeons' results for coronary surgery starting in 2004,¹¹ despite reservations by the Society of Cardiothoracic Surgeons to Ministers in January 2002.¹²

From this evidence, it seems clear that the Government is committed to the publication of individual surgeons' performance league tables throughout all surgical specialties.

Evidence that league tables of surgeons can have an adverse effect on surgical practise

Schneider and Epstein¹³ found that cardiac surgery performance reports had an adverse effect on referral practises. A survey of cardiothoracic surgeons in New York State in 1998 concluded that public exposure of

surgical results resulted in denial of surgical treatment to high-risk patients.¹⁴ A similar survey in Pennsylvania found that two-thirds of surgeons were less willing to operate on higher risk patients following publication of consumer guide league tables.¹⁵ A survey of UK heart surgeons for *Newsnight* found that 90% felt that the threat of public disclosure had already resulted in high-risk patients being turned down.¹⁵

There is a striking similarity between the views of cardiac surgeons demonstrated in the above studies and those of the orthopaedic surgeons in our study. Of surgeons in our survey, 88% thought that surgeons would become reluctant to operate on higher risk patients and thereby become de-skilled. In addition, 89% thought that more disabled patients would increasingly be shunted to specialist centres and, therefore, wait longer for an operation.

Conclusions

There are two stumbling blocks to success for the new NJR – inadequate orthopaedic representation and the potential for NJR data to be used for the publication of league tables of surgeons. If these obstacles can be overcome then the new NJR is likely to be as popular and successful as in other countries. Furthermore, there would be potential to create an international joint replacement registry, in which the UK would play a major role as our population would be one of the largest. This would be of great benefit to our patients and to British orthopaedics.

If these stumbling blocks cannot be overcome then our survey indicates that the NJR will be unpopular with surgeons. It follows from this that compliance by surgeons with the new registry is likely to be insufficient. This would mean that the potentially invaluable tool of a national joint registry would be wasted.

Acknowledgement

We were very sad to hear of the recent death of Mr Chris Jefferies. He was the guiding force behind the collection of data from South West Britain for this paper. He was a very pleasant, distinguished and amusing colleague whom we will greatly miss.

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Comment

Philipson *et al.* have highlighted the concerns of some orthopaedic surgeons regarding the *modus operandi* of the NJR. The questionnaire study, with a 63% response rate from surgeons in two regions may not be a representative sample of consultant opinion. The NJR in its first year of operation registered over 60% of the operations performed, a remarkable achievement, conducted by AEA Technology.

Of course, there is a need to manage joint replacement. The total hip replacement industry alone is worth \$5.7 billion per annum world-wide. The aim is to limit the variations in both provision and outcome, which exists across the UK. That is good for patients.

We believe that the Steering Group represents all of the interested parties including patients. The four surgeons and a surgical epidemiologist representing The Royal College of

Surgeons of England supported by 31 regional co-ordinators give the profession excellent representation, and it is they that will scrutinise the data and draw the conclusions.

Good Surgical Practice (RCS 2000) identifies audit as an essential component of maintaining good practice. Compliance with national audits will be a requirement in the appraisal and revalidation process. Further guidance from the College is imminent. League tables are not going to go away so let us be sure that the data on joint replacement is accurate and correctly interpreted by peers. The NJR will allow this.

Few would disagree that the NJR will be good for patients and in 2004 all should recognise the surgeon's responsibility to be accountable to them. They have every right to expect openness with regard to professional performance.

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