Joint Approach

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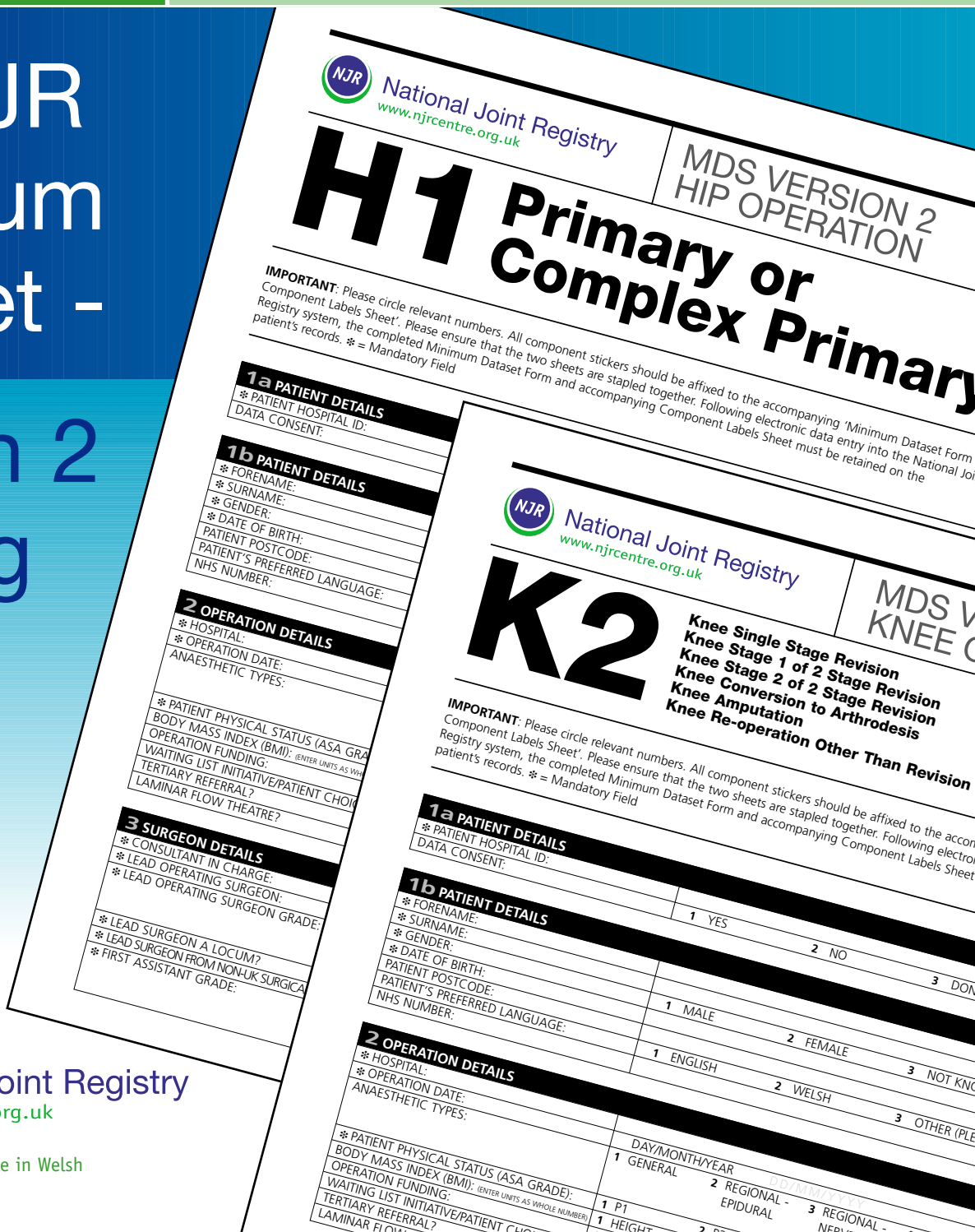
The NJR Minimum Dataset - version 2 coming soon!



National Joint Registry
www.njrcentre.org.uk

This Newsletter is also available in Welsh from the NJR Centre

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Events Diary

The NJR is at the following events:

BASK Spring Meeting April 2004
1 - 2 April 2004 Basingstoke

BOA Annual Congress
15 - 17 September 2004 Manchester

Next newsletter publication:
June 2004

If you would like to make a contribution to this Newsletter please contact the NJR Helpline given below.

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NJR ANNUAL REPORT

The NJR Centre and the Clinical Effectiveness Unit of the Royal College of Surgeons are currently preparing the NJR's first annual report. It will be launched in a plenary session on the first morning of the BOA Annual Congress 2004 (Wednesday 15 September).

The report's findings will be based on data from operations that took place between 1 April and 31 December 2003 in participating hospitals. All data between these dates must be submitted to the NJR by 31 March 2004 to be included in the report.

The full report will be structured in three parts:
Part 1 - a broad introduction to the NJR, including its development, issues identified and how they have been addressed, plans for 2004 through to looking to the future
Part 2 - assessment of data quality, rationale for analyses carried out, their results and interpretation
Part 3 - supporting appendices.

An editorial board is closely involved in both contributing to the report and reviewing its draft contents.

Latest NJR news - at a glance

Minimum Dataset version 2 (MDS v2)

The NJR MDS has been reviewed. Improvements to the dataset have been identified that will enhance future data analysis and subsequent interpretation to improve patient outcomes. The update - MDS version 2 - will be introduced for use on 1 April 2004. See pages 3-5 for further information.

Bulk data upload

Many hospitals collect data on their local database systems and have requested a method of exporting that data directly into the NJR - a bulk data upload facility. This facility will be developed over the coming months following the release of MDS version 2. A bulk data upload facility will not be developed for MDS version 1.

Barcode reader system

A barcode reader system is currently being developed. All NJR participating hospitals will be provided with a barcode reader (at no cost to the hospital), which will be despatched in due course.

Helpline telephone number change

The Helpline telephone number has changed to **0845 345 9991**. Similarly, the fax number has changed to **0845 345 9992**. A handy postcard with the new numbers has been issued to all NJR users where an address is known. To ensure you are kept up-to-date with all NJR developments, please ensure we have your current contact details. Help us to help you!

The NJR Minimum Dataset - version 2 - coming soon!

DEFINITIONS OF MDS VERSION 1 AND MDS VERSION 2:

Minimum Dataset version 1

MDS v1 - the dataset collected by the NJR from 1 April 2003 until switchover to MDS v2.

Minimum Dataset version 2

MDS v2 - the dataset introduced by the NJR as from 1 April 2004 (subject to approval that is currently being sought from the relevant NHS/DOH data standard bodies).

MDS v2 is being introduced over a two-month period, from 1 April to 31 May 2004. Approval for NJR Minimum Dataset version 2 (MDS v2) is currently being sought from the relevant NHS/DOH data standard bodies.

Hospitals are encouraged to put in place hospital procedures to collect MDS v2 in readiness of MDS v2 approval. Hospitals can switch to MDS v2 at any time during the introductory period. The facility to submit MDS v1 data will be withdrawn at the end of this period.

What's changing and why?

NJR user feedback and the lessons learned in the first six months have prompted the changes being made. Surgical opinion, in particular, led to a full review of the current MDS (MDS v1).

The review identified the need for a number of changes to data fields collected by the NJR. These improvements will enhance future data analysis and subsequent interpretation to improve patient outcomes. MDS v2 also aims to provide a more objective measure of epidemiological case mix and complexity. Importantly, MDS v2 includes "Re-operations other than revision", for example, operations due to infection or dislocation.

The changes made to the MDS mean that the paper proformas (used to capture NJR data in theatre prior to electronic submission) and the data entry system (used to submit NJR data electronically) also need to be modified to reflect the changes made to the dataset (see page 4).

Key actions for hospitals

Hospitals need to take some key actions so that they are ready to submit the MDS v2 dataset being introduced from 1 April 2004. Guidance for getting ready to collect MDS v2 data is available from the NJR website **www.njrcentre.org.uk**. Follow the links from the Healthcare Providers homepage to MDS v2.

Data submission deadlines

Data from operations conducted between 1 April and 31 December 2003 must be submitted electronically by **31 March 2004** if they are to be included in data analyses in the first NJR annual report.

Data from operations conducted between 1 April 2003 and 31 May 2004 (i.e. MDS v1 data) should be submitted electronically by **31 May 2004**.

MDS v2 introductory period

From 1 April to 31 May 2004, both datasets (MDS v1 and MDS v2) can be submitted electronically. During this two-month introductory period the following functions will apply.

Passwords - users will have one password regardless of whether MDS v1 or MDS v2 data is entered. All user passwords current on 1 April 2004 will remain the same.

If an NJR user forgets their password they will need to contact the NJR Helpline. The NJR Helpline will reset forgotten passwords.

Associating surgeons to a hospital - a Hospital Data Manager (HDM) will still be able to associate a surgeon to their hospital. However, initially this will only be via the MDS v1 pathway in the data entry system (MDS v2 users will also be notified that this is the case via the MDS v2 pathway). This functionality will changeover from MDS v1 to MDS v2 in due course. HDMs will be informed when this change takes place via the data entry system.

Alternatively, HDMs can contact the NJR Helpline who will be able to associate surgeons to a hospital on their behalf.

New fields to complete in 'surgeon default technique'

One of the key benefits of MDS v2 is the expansion of the surgeon default technique - this will help to limit repetitive data entry. Surgeon default techniques that have been completed in MDS v1 will be automatically transferred across to MDS v2. However, surgeons will need to revisit their default techniques and complete the new fields provided.

Communicating changes to colleagues

It is important that all relevant staff in hospitals are made aware of the introduction of MDS v2. This includes anyone who is involved with the NJR data collection process, such as:

- surgeons and theatre staff who complete the MDS paper proformas
- NJR data entry staff
- staff who manage hospital processes which may affect the collection of NJR data.

Please share your knowledge with your colleagues.

MDS version 2 proformas

Data from operations can be entered directly into the NJR database. Where this is not feasible, the NJR paper proformas should be used. The data must then be submitted electronically.

All completed proformas should be made available to the person who inputs NJR data, and then held by the hospital as part of the patient record. Paper proformas for collecting MDS v2 are now available from the NJR website. There are different MDS v2 proformas for different types of operations.

Remember! MDS v2 proformas are available for use from 1 April 2004.

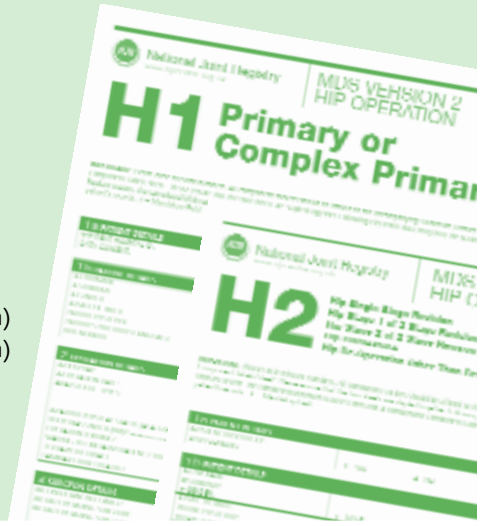
HIP PROFORMAS -

TWO PROFORMAS RELATE SPECIFICALLY TO HIP OPERATIONS.

H1 should be used for Primary or Complex Primary hip operations.

***H2 should be used for the following:**

- Hip Single Stage Revision
- Hip Revision (Stage 1 of 2 stage revision)
- Hip Revision (Stage 2 of 2 stage revision)
- Hip Girdlestone
- Hip Re-Operation Other Than Revision



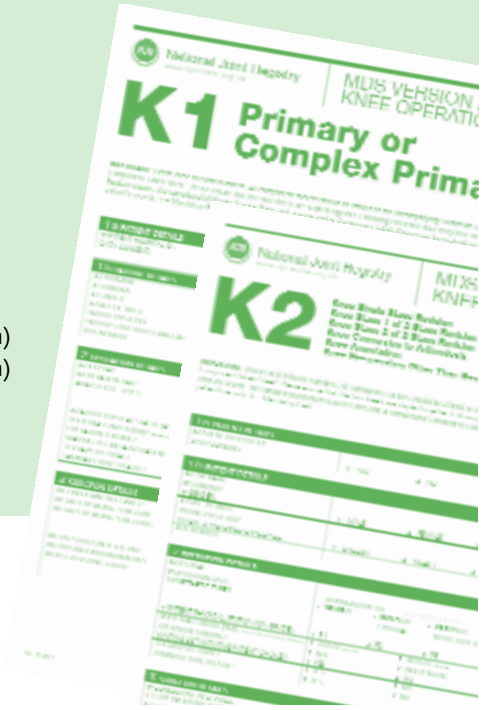
KNEE PROFORMAS -

TWO PROFORMAS RELATE SPECIFICALLY TO KNEE OPERATIONS.

K1 should be used for Primary or Complex Primary knee operations.

***K2 should be used for the following:**

- Knee Single Stage Revision
- Knee Revision (Stage 1 of 2 stage revision)
- Knee Revision (Stage 2 of 2 stage revision)
- Knee Conversion to Arthrodesis
- Knee Amputation
- Knee Re-operation Other Than Revision



**H2 and K2 proformas capture data for a number of different procedures. They have been formatted to indicate the procedures that need to be recorded in each particular section.*

THE IMPORTANCE OF OBTAINING PATIENT CONSENT

For the NJR to be most effective, the number of records that include patient personal information need to be maximised. For example, a patient's primary and revision operations are linked via their NHS number.

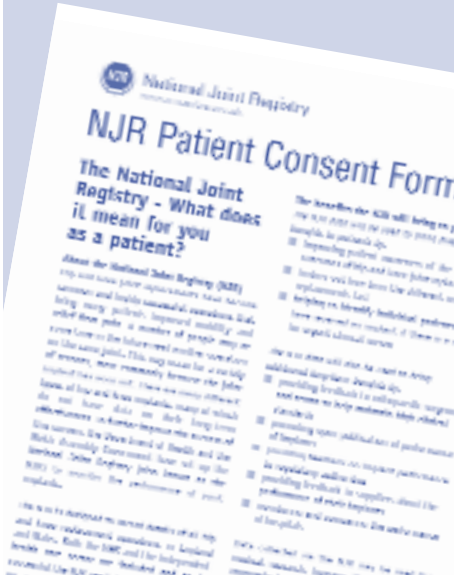
If a patient gives consent, their personal details (i.e. name, date of birth, address, postcode and NHS number) should be submitted to the NJR. If a patient does not give consent, only the operation data should be submitted to the NJR. This practice conforms with the Data Protection Act (1998).

Revised consent form

The NJR patient consent form has been updated to reflect hospital feedback, and now incorporates separate sections to record where consent has been given and where it has been withheld. The revised NJR patient consent form (version 1.4, February 2004) can be downloaded from the NJR website and should replace any previous versions in current use.

The patient's choice

Patient participation is voluntary, however, patients must be given the opportunity to read and sign the NJR consent form.



Changes to the data entry system

Some modifications and improvements have been made to the data entry system to reflect MDS v2.

What's improved?

Although its look and feel is different, the data entry system for MDS v2 is more user–friendly, making data entry easier. It has:

- more targeted data fields that need to be completed
- an intuitive workflow, where the sequence of data fields follow the flow of operations more closely
- data fields that are easier to complete, where drop-down menus and radio buttons allow many details to be entered with a simple mouse-click
- to help users complete data fields 'help text' can be accessed by clicking on the question mark symbol (?) next to data fields.

The Data Entry System

What does it look like?

From 1 April to 31 May 2004, data entry staff will be able to submit data for both MDS v1 and MDS v2. Users will be directed to the appropriate data entry pathway as shown above.

Login screen: Logging into the data entry system will remain the same, no matter which dataset the user chooses.

Menu screen: This screen will offer the same options as are currently available.

Patient Details: This screen has changed. As before, patient details should only be submitted if the patient has given their consent. However, an extra data field has been added to record whether a patient has given their consent - **Don't know** - this should be completed if an NJR patient consent form has not been made available for reference at the time of data entry.

Operation Details: This screen contains some new data fields, for example, height and weight have been added. There is also an additional option under 'Patient physical status'. These additional factors will help to address certain aspects of case mix and complexity.

Surgeon Details screen: The data fields on this screen remain the same.

Operative Details - Create a New Procedure screen: The layout of this screen has changed. The types of procedure captured by the NJR have been expanded to include complex primary, revision types and 're-operations other than revisions', e.g. where re-operation has been due to infection or dislocation. Girdlestone (for hips) and amputation and conversion to arthrodesis (for knees) are also included. The segregation of information into these procedures will help to address aspects of case mix and complexity.

Operative Details - Technique 1 and Technique 2 screens: These screens contain new data sections, for example, bone grafts, bone defects, cementing techniques, and intra-operative events. These data fields can be preset using the 'surgeon default technique'. (To set a surgeon's default technique go to **Menu**, then **System Functions** and then **Modify Surgeon profile** and complete all data fields indicated.)

Search Components and Locate Components screens: These screens basically stay the same. The easiest way to locate an implant component is to enter both the catalogue (REF) and batch (LOT) numbers - these numbers should be found on the sticky label of the component's packaging. If these numbers are not known, then the component will need to be located by drilling down through supplier, type, and subtype lists. The barcode reader facility, due to be developed over the next few months, will ease component data entry for many users.

Validate Submission - Complete screen: This screen remains the same. 'View and fix' links are provided where incomplete data fields are detected.

NJR Centre Support

The NJR Centre will continue to provide one-to-one support via the Helpline and supplementary information will be made available on the NJR website. In-house, hands-on data entry training workshops are also available on request. To discuss your hospital's training requirements contact Amanda Hoare, NJR Training Co-ordinator, via the Helpline, or by email: **training@aeat.co.uk.**

MORE THAN 50,000 OPERATIONS

The NJR has gained widespread support since its launch on 1 April 2003. It has exceeded 50,000 hip and knee operation submissions between 1 April 2003 and 29 February 2004.

Cumulative statistics show operation submissions now exceed the halfway point of the estimated number of hip and knee procedures performed annually across England and Wales, with current hospital participation running at around 70 %.

"The internet-based Registry generates an electronic audit tool for surgeons and hospitals alike in addition to monitoring prosthesis performance."
says NJR spokesperson David Carter.

He points out that now is a good time for non-participating hospitals to get involved with the NJR as a revised Minimum Dataset will be introduced on 1 April 2004, which is more comprehensive and more user-friendly.

Improving patient safety

The National Joint Registry exhibited its aims and benefits at National Patient Safety 2004 in February at the International Convention Centre, Birmingham.

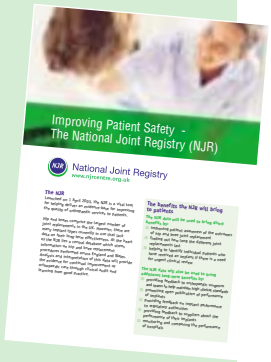
The event shared information on: patient safety leadership and learning; improving systems for patient safety; creating an open and fair culture; and involving patients and the public. These topics are in close alignment with the NJR's aims.

This event provided senior management and other professionals in the NHS; with an opportunity to take away practical advice on how the NJR can be used to deliver improved and safer healthcare in orthopaedics. The benefits of using the NJR as an electronic audit tool for the performance of implants and orthopaedic units were demonstrated.

Ultimately the NJR benefits patients by:

- improving patient awareness of the out-comes of hip and knee joint replacement
- finding out how long the different joint replacements last
- helping to identify individual patients who have received an implant if there is a need for urgent clinical review
- providing feedback to orthopaedic surgeons and teams to help maintain high clinical standards
- promoting open publication of performance of implants
- providing feedback on implant performance to regulatory authorities
- providing feedback to suppliers about the performance of their implants
- monitoring and comparing the performance of hospitals.

A leaflet outlining how the NJR can benefit patient safety is available from the NJR Centre by request. The leaflet covers the NJR's role in clinical governance, the importance of patient consent and aspects of patient security and confidentiality.



Managing NJR data capture at the Royal Orthopaedic Hospital

The Royal Orthopaedic Hospital (ROH), Birmingham, is a specialist orthopaedic hospital that undertakes more than 2000 joint replacements each year. The ROH has introduced a number of measures to successfully incorporate NJR data capture within its existing hospital management processes.

An NJR project team

The first step the ROH took was to establish a hospital-based NJR project team. This team identifies and co-ordinates the key activities that ensure quality data are submitted to the NJR. Clear responsibilities were assigned to each team member.

The NJR project team at the ROH are:

David Dunlop - Regional Clinical Co-ordinator for Birmingham and the Black Country Strategic Health Authority area

Cheryl Hudson - Operational Manager and Project Director

Dolly Virdi - Theatre Co-ordinator

Tamara Hemmings - Clinical Pathways and Project Manager

Vicky Cook - Audit Clerk

Christine Miles - Project Sponsor (and Chief Executive, ROH)

Collecting patient consent

A patient's pre-operative assessment is one of the key points where patient information is collected - it was decided that it would also provide the best place to obtain NJR patient consent, i.e. to allow the NJR to record their personal details. The pre-assessment clinic was provided with NJR patient consent forms and accompanying information. A date to start the patient consent collection process was also agreed.

An audit trail is being introduced to help identify whether, and if necessary where, this process needs to be refined.

Data capture process

The way in which data were being captured in theatre and the key personnel involved were reviewed. The aim of the review was to minimise data duplication and unnecessary staff effort. The review resulted in the decision to merge the local theatre utilisation document with the NJR minimum dataset (MDS) proforma. This has helped to streamline data collection, and helps to ensure that the different datasets collected are complete and accurate.

The theatre team leader completes an NJR MDS proforma in conjunction with both the consultant and anaesthetist. This helps to reduce the amount of time that consultants need to spend on completing paperwork.

In the long term, the ROH aims to equip all of its ten theatres with computers and ISDN lines so that data can be entered electronically at source.

Data quality assurance

NJR MDS proformas are audited daily to ensure that all mandatory data fields are completed and inaccurate information is amended. Only then are data entered electronically into the NJR. Audit results are fed back to theatre team leaders and where needed, NJR data requirements are reinforced.

The turnaround time for completion of an MDS proforma through to electronic data entry is approximately 48 hours.

Performance indicator sheet

A daily review of the theatre lists is undertaken to ensure that all relevant surgical procedures are submitted to the NJR. The number of procedures is compared with the number of MDS forms completed for the day on a 'performance indicator sheet'.

The performance indicator sheet records:

- the number of complete forms
- the number of incomplete forms
- any data validation queries (most of which are due to implant components not being found on the NJR database)
- an action plan to resolve any validation queries.

This daily management system identifies missing proformas and helps to capture any missing data fields. The performance indicator sheets are circulated to NJR Project team members and are incorporated in the Trust's monthly Corporate Performance Report.

Improving the process

The ROH has taken steps that have successfully embedded NJR data collection. However, to speed up data capture the ROH intends to make full use of the surgeon's default technique - an NJR facility that allows surgeons to define their default operation technique which helps to limit repetitive data entry. The ROH intends to set up a default technique for each of its surgeons within the NJR, which will help to reduce time spent on electronic data entry.

Communication of NJR information

An NJR notice-board is one of the main vehicles used for sharing pertinent NJR information in the theatre department, where laminated copies of current MDS proformas and consent forms are made available for reference. All theatre team members are also provided with printed copies of the MDS proformas, and the need to complete mandatory fields is highlighted.

Further information exchange takes place during regular theatre team meetings.

Hip replacement in your twenties

Hip replacement in young people is not common but Michele Rogers, only 28, has recently undergone total hip replacement surgery.

Michele never thought she would need this type of surgery at such a young age, "It is something you usually associate with elderly people."

Early warning signs

Michele was 18 years old when she first realised something was wrong - she was woken in the middle of the night by intense pain down her left side. The previous day she had taken a gentle stroll but nothing untoward had happened. The following day, Michele had an X-ray which revealed a misalignment of the hip.

A passion for being fit and active

Michele has always been active. At university she enjoyed hiking despite feeling occasional discomfort during and after long walks. Whilst at college she spent a winter in Canada and it was there that she started to experience increasing bouts of pain and decreased mobility. Back in the UK, Michele visited her GP, she was now 24 years old and feeling a crushing pain in her left hip. Her GP was not sympathetic to her problem and did not offer any advice.

Michele stepped up her exercise regime. For the next four years she swam breaststroke nearly every day and spent much of her time in the gym and jogged regularly. Even though she experienced some difficulties, in particular using the leg abductor and treadmill, she pursued her goal of keeping fit.

As time progressed the pain became more frequent and affected the whole of her left leg. In May 2003, Michele was referred to an orthopaedic consultant. X-rays revealed that her left hip showed signs of severe degeneration but she was offered no explanation as to the cause.

Lack of time and information

Michele was given a waiting time of nine months for her operation but, because her hip was degenerating rapidly, the date was brought forward. Whilst in one sense this brought relief, Michele had also become anxious. She had been diagnosed with osteoporosis two years earlier and she had suffered significant weight loss just before the operation - her femur was particularly thin.

Nobody informed Michele of the type of medication she might need in the days immediately after the operation. If they had, it would have given her the opportunity to discuss it and the possible alternatives. Michele underwent total hip replacement surgery in October 2003.

Michele was pleased with the results of the surgery, "Given that this is a major operation, the incision was really quite neat. I had clips instead of stitches, which were removed just three days after the operation." The first few days were hard going for Michele because her system was suffering from low levels of iron, sugar and salt. This meant she couldn't get out of bed and left her feeling frustrated.

Coping at home

At first Michele found it difficult to regain her co-ordination but using two walking sticks helped her to get around the house. To help her live in her home during her recovery period, she needed raises for her bed, the toilet and a chair - it wasn't as straightforward as she had expected. "I didn't realise that I needed to apply to the Red Cross to get a raised chair, in fact I had to wait eight weeks, so I made do with a sun lounger reclining chair."

Six weeks after surgery Michele started a series of hydrotherapy exercises followed by physiotherapy sessions and gym work. Michele praised the physiotherapy staff and the ambulance service for all their help.

On reflection, Michele would have found it useful if she had been given more information earlier so that she could prepare for her recovery period. She also feels she could have benefited from sharing the experiences of previous hip replacement patients.

Life on hold

Michele feels as if her life has been put on hold over the past few years. Although she has kept herself active she feels she's had to wait a long time to get a diagnosis and has been disappointed by the lack of information. The whole experience has lowered her self-esteem and at times she admits to feeling more like "an old woman" rather than a young person in the prime of her life.

Moving on

Being able to drive has renewed Michele's independence but getting in and out of the car is still quite tricky, and long journeys are hard on the new hip.

As a result of Michele's condition, she has a slightly shorter left leg and she is due to have a trip soon to orthotics to get a raise for her left shoe. (Surgery will correct leg length where it can, but accurate measurement is difficult and it is more important to make sure that the hip is stable and not likely to dislocate.)

Michele has started swimming again but avoids breaststroke and is aware she must not do too much too soon. Michele's confidence is returning, though she is concerned that her recovery is taking its time, but she is glad that she's had the operation and is looking forward to resuming an active life.

This Newsletter seeks to share patient experiences of joint replacement and the benefits of this type of surgery. If you would like to share your experiences and help other people understand what's involved, contact the NJR Helpline on **0845 345 9991**.