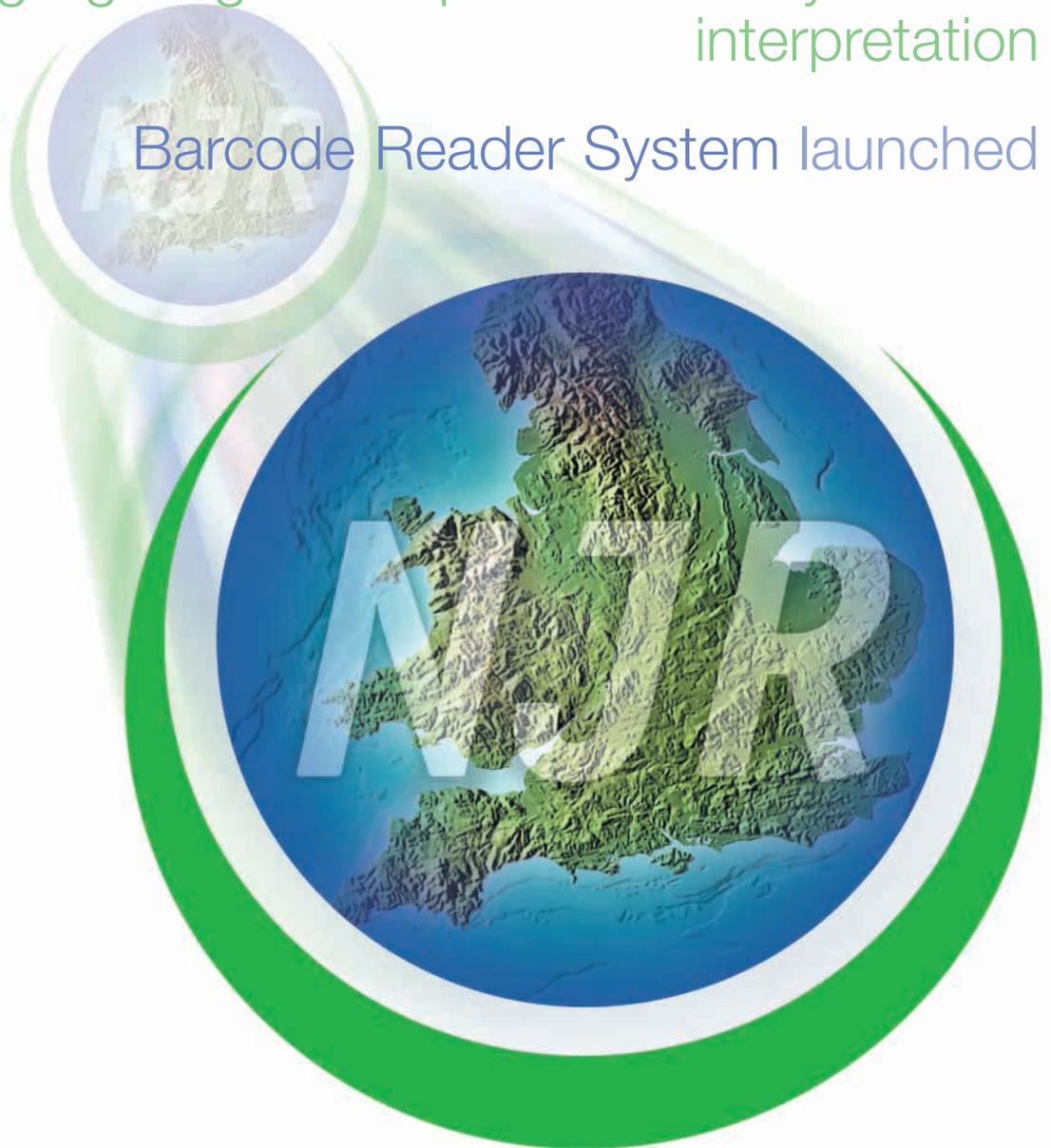


Joint Approach

The newsletter of the National Joint Registry

The NJR 2nd Annual Report
Highlighting developments | Analyses and
interpretation

Barcode Reader System launched



National Joint Registry
www.njrcentre.org.uk

This Newsletter is also available in Welsh

Contents

LATEST NJR NEWS - AT A GLANCE	2
EVENTS DIARY	2
THE NJR 2ND ANNUAL REPORT	3
2ND ANNUAL REPORT - HIGHLIGHTING DEVELOPMENTS	4
2ND ANNUAL REPORT - ANALYSES AND INTERPRETATION	5 & 6
BARCODE READER FACILITY - READY TO USE	7
GETTING BACK TO NORMAL	8

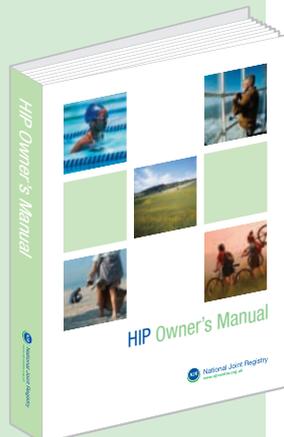
Latest NJR news - at a glance

NJR 2nd Annual Report

This issue of the newsletter largely focuses on some of the key findings of the NJR 2nd Annual Report. Readers should refer to the full Annual Report for further details and supporting information. The full report and summary report are available from the NJR website at www.njrcentre.org.uk

Piloting the NJR Hip Owner's Manual

The NJR Centre is delighted with the interest shown by hospitals in piloting the Hip Owner's Manual. More than 30 hospitals agreed to take part in the pilot and distribute the manual to their patients over a three-month period. Results from the pilot will be reported towards the end of 2005 and presented to the NJR Steering Committee for their approval to take this initiative forward.



Events Diary

NJR Suppliers Day 2005

19 October 2005, The Oxford Hotel, Oxford

Next Newsletter publication: December 2005

If you would like to make a contribution to this Newsletter, please contact the NJR Helpline on **0845 345 9991**, or send an email to enquiries@njrcentre.org.uk. Let us know what you would find useful and would like to see in the next issue of the Newsletter.

All NJR information and documents are available on the NJR website at www.njrcentre.org.uk

If you do not have access to the web, contact the NJR Helpline to receive a copy by email or by post.

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The NJR 2nd Annual Report

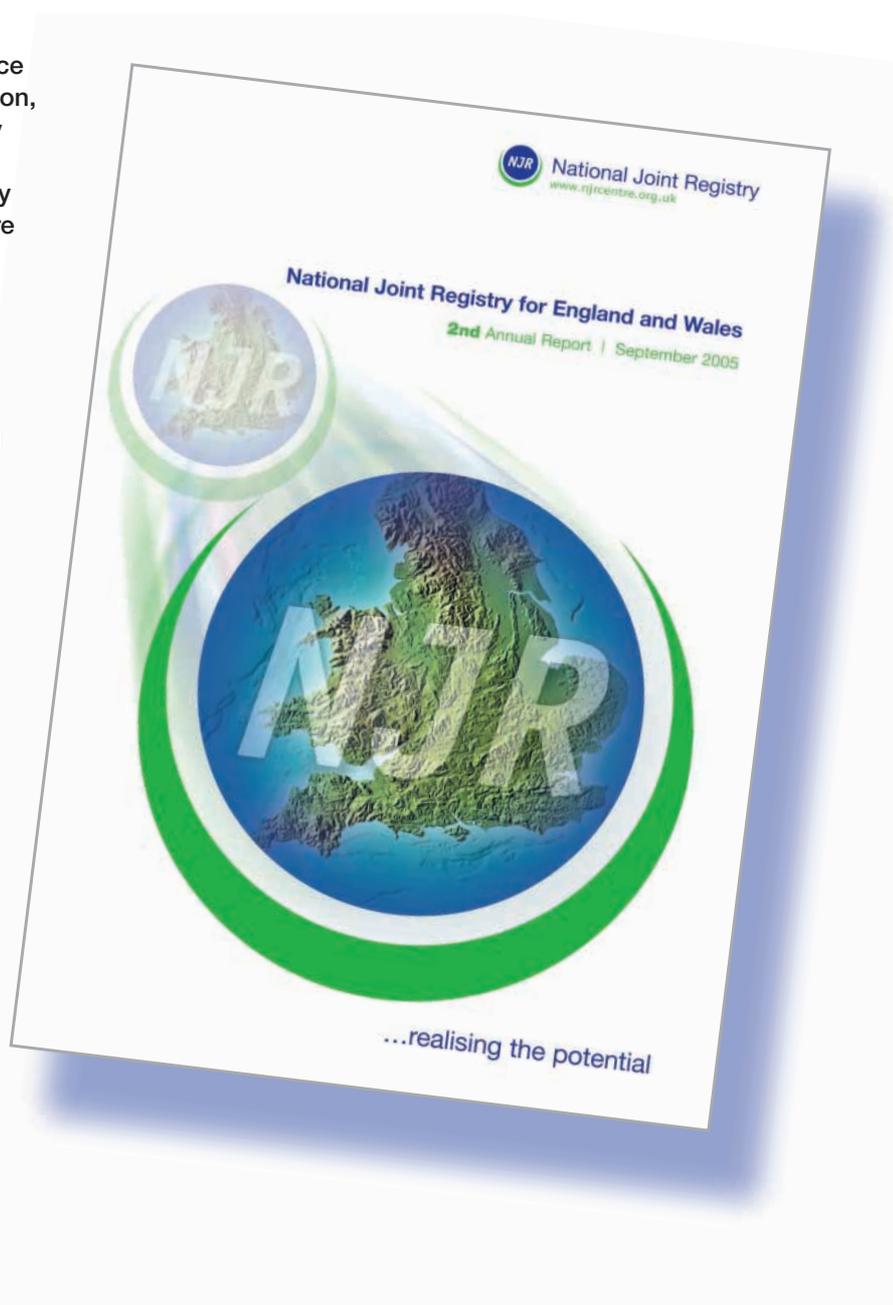
The NJR launches its 2nd Annual Report for England and Wales at the British Orthopaedic Association Annual Congress on 21 September 2005.

The report charts the progress of the NJR since its development through to the present situation, and focuses in particular on data collected by the NJR for hip and knee replacement procedures that took place between 1 January and 31 December 2004 inclusive and that were submitted by 28 February 2005.

The Annual Report is structured in three parts:

- **Part 1** reports on key activities that took place between 1 January 2004 and 31 July 2005 that were not included in the 1st Annual Report
- **Part 2** focuses on data analysis and interpretation. Data available for analysis cover 21 months and have allowed a wider range of analyses to be carried out. Reflecting developments in technologies and techniques, analyses examine, for example, the prevalence of hip resurfacing and use of minimally invasive surgery. Although early findings must be regarded as preliminary, their possible implications are of interest
- **Part 3** of the report provides appendices to support both Part 1 text and Part 2 analyses

The full report and a summary report can be downloaded from the NJR website at www.njrcentre.org.uk



- Highlighting developments

Highlighting developments

The initial findings of the 1st Annual Report were encouraging, but there was much to do and areas that were highlighted to receive particular attention included:

- Improving levels of data completeness, particularly in relation to provision of an NHS number where patients have given NJR consent
- Ensuring that the NJR consent process is fully embedded in hospitals
- Working closely with those hospitals that are experiencing difficulties in becoming NJR compliant
- Working with stakeholders to develop the range of NJR reporting requirements.

There has been intense activity in these areas and also spread across a broader range of areas such as:

- Further development of the Minimum Dataset (MDS v2)
- Development and launch of a barcode reader facility
- Development and launch of a bulk data upload facility
- NJR StatsOnline - a web facility for viewing and downloading NJR statistics.

Stakeholder developments

■ As development of the NJR has progressed, a structure of advisory groups and sub-committees has evolved to support the work of the Steering Committee. These are the:

- NJR Outlier Performance Advisory Group (NOPAG)
- NJR Research Sub Committee (NJR RSC)
- Patient Reported Outcome Measurement Study (PROMS) Group

■ Following an initial survey of stakeholder reporting requirements, a stakeholder reporting strategy was developed. Establishment of the NJR stakeholder reporting process will enable stakeholder groups to obtain the information they need quickly, easily and in a convenient format. In Phase 1, standard reports are in preparation for hospital management, the NHS Purchasing and Supply Agency (PASA), manufacturers and suppliers, and surgeons

■ The Orthopaedic Data Evaluation Panel (ODEP) was established by NHS PASA to provide an independent assessment of the clinical outcomes data submitted by implant manufacturers, regarding the compliance of brands of total hip and hip

resurfacing prostheses with the NICE benchmarks for the effectiveness of different brands of hip prostheses. The NJR's input into the ODEP process has proved of great value. In 2005, an exercise was undertaken comparing NJR entries with products submitted for ODEP evaluation. The result was that a considerable number of products were identified as being implanted, but had not been put forward to ODEP. This NJR input has allowed building on the work of ODEP to provide a comprehensive view of hips available on the UK market and their compliance with the benchmarks set by NICE

■ A PROMS interim study took place in the first half of 2005. An overall response rate of 88% was achieved, which is very encouraging. It satisfied two main aims:

- examining how patients viewed the outcome of their joint replacement at least one year after surgery
- providing an initial test of the logistics for running a postal patient reported outcomes survey on patients whose data had been entered onto the NJR database.

- Analyses and interpretation

The table summarises the data used in the majority of analyses in Part 2 of the report, i.e. data related to hip and knee replacement procedures carried out in England and Wales from 1 January to 31 December 2004 inclusive and entered into the NJR database by 28 February 2005.

Key findings

- 60% of relevant NHS hip and knee replacements were entered into the NJR in 2004. Consent to enter patient personal details (forename, surname, date of birth, postcode and NHS number) was obtained for 65% of all procedures entered. NHS numbers were available for 70% of patients who gave consent
- 171 hospitals (45% of those obtaining consent) obtained a consent rate of at least 80% of procedures entered, with 31 of those achieving 100% consent rates
- At 24 hospitals, NHS numbers were available for all consenting patients.

Collecting patient personal details is an important element of the NJR data collection process because they allow the NJR to:

- Identify patients that have received a specific prosthesis that may later be found to be faulty
- Link a patient's primary and revision procedures, enabling the survivability of particular implants to be determined (the

	Hips		Knees		Total	
	Number	(%)	Number	(%)	Number	(%)
Country						
England	47,427	(96.8)	43,603	(97.1)	91,030	(97.0)
Wales	1,560	(3.2)	1,295	(2.9)	2,855	(3.0)
Type of procedure						
Primary	44,262	(90.4)	42,791	(95.3)	87,053	(92.7)
Revision	4,516	(9.2)	1,966	(4.4)	6,482	(6.9)
Re-operation other than revision	209	(0.4)	141	(0.3)	350	(0.4)
Type of treatment provider						
NHS hospital	30,990	(63.2)	29,592	(65.9)	60,582	(64.5)
Independent hospital	16,203	(33.1)	13,333	(29.7)	29,536	(31.5)
NHS treatment centre	1,118	(2.3)	1,186	(2.6)	2,304	(2.5)
Independent treatment centre	676	(1.4)	787	(1.8)	1,463	(1.5)
Total	48,987		44,898		93,885	

link being made via the NHS number)

- Invite patients to participate in any subsequent feedback process for patient satisfaction to be assessed and recorded.

- 88 different brands of acetabular cups and 101 different brands of femoral stems were recorded. 574 combinations of cup brand and stem brand were recorded. 9,718 procedures (25%) used 'mixed and matched' cup-stem combinations.

Primary hip replacement

- Mean age of patients was 68 years
- Overall, more consenting patients were female than male (59%)
- The most common indication for surgery was osteoarthritis, present in 94% of patients
- Most procedures used cement (77% used femoral cement and 56% used acetabular cement)
- 6.5% of all procedures used minimally invasive surgery
- 8% of procedures recorded were performed on 'young' patients (under 55 years)

Primary knee replacement

- Mean age of patients was 70 years
- Overall, more consenting patients were female than male (56%)
- The most common indication for surgery was osteoarthritis, present in 96% of patients
- 6.1% of procedures used minimally invasive surgery
- 3.7% of procedures recorded were known to have been performed on 'young' patients (under 55 years)
- 33 different brands of total condylar knee prostheses were

recorded. In addition, ten brands of unicondylar prostheses, three brands of patello-femoral replacement prostheses and seven brands of hinged prostheses were recorded.

Revisions

- For hip revisions, the mean age of patients was 69 years. Overall, more consenting patients were female than male (57%). The most common indication for a hip revision was aseptic loosening, present in 79% of patients
- For knee revisions, the mean age of patients was 70 years. Overall, more consenting patients were female than male (52%). The most common indication for a knee revision was aseptic loosening, present in 59% of patients
- At this early stage of the NJR, 122 hip revision or re-operation procedures performed between 1 April 2003 and 31 December 2004 are linked to a primary procedure in the database. 54 knee revision or re-operation procedures performed over this time period are linked.

Mortality of hip and knee replacement patients

- 31,060 primary hip replacement patients with operation dates between 1 April 2003 and 31 December 2004 have NHS numbers. A date of death was traced for 533 (1.7%) of these patients through the National Strategic Tracing Service (NSTS) in March 2005
- 203 of the 31,060 primary hip replacement patients have a date of death within three months of their operation. This corresponds to an overall three-month mortality rate of 0.64%. Males had a higher three-month mortality rate than females (0.69% versus 0.60%). The three-month mortality rate increased with age, as might be expected

- 29,857 primary knee replacement patients with operation dates between 1 April 2003 and 31 December 2004 have NHS numbers. A date of death was traced for 474 (1.6%) of these patients through the NSTS in March 2005

- 153 of the 29,857 primary knee replacement patients have a date of death within three months of their operation. This corresponds to an overall three-month mortality rate of 0.49%. Three-month mortality amongst male primary knee replacement patients was higher than for females
- The three-month mortality rate increased with age as might be expected.

Patient reported outcomes - Interim study

Hips

- Of the 10,000 survey questionnaires sent to patients, 9,942 could be linked with data in the NJR database. Of these, questionnaires sent to 8,922 patients who had undergone a unilateral primary procedure could be considered
- 7,838 (88%) of eligible patients returned their survey questionnaires
- The 91% of returned questionnaires from which the Oxford Hip Score could be calculated, suggest that about 30% of patients have no or hardly any problems related to their hip replacement. However, 6.1% of patients had an Oxford Hip Score suggesting that they have moderate to severe problems
- Of 7,705 patients who responded to the question, 90% were satisfied with their hip replacement and 3.5% were not satisfied.

Knees

- Of the 10,000 survey questionnaires sent to patients, 9,935 could be linked with data in the NJR database. Of these,

questionnaires sent to 9,417 patients who had undergone a unilateral primary knee procedure could be considered

- 8,231 (87%) of eligible patients returned their survey questionnaires
- The 88% of returned questionnaires from which the Oxford Knee Score could be calculated, suggest that slightly less than 10% of patients have no or hardly any problems related to their knee replacement. However, 11% of patients had an Oxford Knee Score suggesting that they have moderate to severe problems
- Of 8,095 patients who responded to the question, 82% were satisfied with their knee replacement and 7% were not satisfied.

“Bringing the statistics as up to date as possible, on 24 June 2005 the 200,000th record was entered into the NJR system and by the end of July a total of 212,107 records had been entered: highly gratifying figures. The average consent rate for that month was 72.9%, and 98.8% of all hospitals on the NJR database had submitted data by the end of July 2005.

However, much remains to be done if the data we have collected are to realise their full potential in improving orthopaedic care. In particular, we need to increase patient consent and the collection of NHS numbers for consented patients. This must be our main objective for 2005 and a number of measures are under active consideration to enable us to do this urgently.”

Bill Darling Chair, NJR Steering Committee

Barcode reader facility - ready to use

As part of the continuous improvement of the NJR Data Entry System, a barcode reader facility has been developed. Scanning the suppliers' barcodes on component packaging will automatically enter implant details onto the NJR. This barcode reader facility will help to speed up data entry and improve overall data quality.

The barcode reader facility was fully launched in August and many hospitals are now using it routinely to enter implant component details.

How to request a scanner

As part of this recent development the NJR is providing each NJR participating hospital with a barcode scanner. To receive a barcode scanner NJR Hospital Data Managers should make an application to the NJR Centre. Applications can be made by completing the online request form at www.njrcentre.org.uk, or by contacting the NJR Helpline on **0845 345 9991**.

Initial application is for one barcode scanner only per hospital. Depending on overall demand, requests for further barcode scanners will be considered. Scanners should be received within two weeks of application.

Installing your scanner

Guidance for using the NJR barcode reader facility is supplied with each scanner and includes full installation instructions; this user guide is also available from the NJR website. Although installation is relatively simple, you may want to take advice from your IT department. Further assistance on installation can be given over the telephone by contacting the NJR Helpline on **0845 345 9991**.

Changes to the Data Entry System

The *Find components* screen on the NJR Data Entry System has been updated to include a *Scan barcode* box, see Figure 1. This is where the barcode data are entered once scanned.

The *Find components* screen will now always default to the *Scan barcode* selection box, on anticipation that most users will want to scan component details. However, component details can still be entered manually when needed by selecting the appropriate section, e.g. *Search by REF number* or *Locate by Supplier*.

Once the barcode information has been entered, the system will check the data against the component listing held on the NJR database. If the component data are not recognised, the system will automatically move the user to the *Search by REF number* section.

Barcode recognition

The NJR Data Entry System will recognise the majority of barcodes from leading component suppliers, including:

- B Braun/Aesculap
- Biomet
- DePuy
- Intavent - Orthofix
- Joint Replacement Instrumentation (JRI)
- Schering-Plough

Figure 1 - Find components screen

- Smith & Nephew
- Stryker Howmedica Osteonics
- Summit Medical

and some from:

- Corin
- Zimmer.

The NJR Centre is working closely with all UK suppliers to incorporate as many components as possible.

There are a few manufacturers that do not use barcodes at all; where this occurs component details will need to be entered manually.

“The National Joint Registry’s barcode reader system is a welcome development as it is easy to use and saves data entry time.

I was pleased to be asked to pilot the system. The support and information given by the NJR Team has been excellent at all times.”

Paul Allen, Royal Berkshire Hospital

Getting back to normal

After visiting her doctor for three years with aches and pains in her right hip, Wendy Metcalfe was sent to an orthopaedic hospital for what she thought was an injection to help with the muscle spasms the doctor thought she was having as a result of a previous left knee injury. Wendy was an active lady and a member of the Women's Institute. She enjoyed visiting the gym but had had to stop going dancing because it was too painful.

Wendy arranged to be dropped off at the hospital by a friend and told her that she should be ready within a couple of hours. After her X-ray, Wendy sat waiting to be seen by a doctor who she thought was going to give her the hip injection. The doctor called her through and she was told that she would actually need a hip replacement. This was totally unexpected and being on her own it was quite a lot for Wendy to take in. Although she was quite upset, Wendy had to sit and wait for further tests to be done and for the results to be available.

The consultant called Wendy through to his room where he explained that the cartilage in her hip had worn away; this was what was causing her so much pain. She was told that she would need to go on the waiting list for about nine months, and then she would have a hip replacement which would require a stay in hospital of about a week.

"I was really petrified about having the operation, especially when I was told that it would be carried out using an epidural." Scared of the unknown, Wendy tried to put her forthcoming procedure out of her mind.

Through friends, Wendy was put in touch with other patients who had been through a similar procedure. She met up with one of them who explained what he had been through and advised Wendy which home aids she would find the most useful. Although having someone else to talk to helped, Wendy was still very nervous about the operation and wasn't sure how she would cope at home on her own. So she set about making plans to make things easier for herself. Wendy asked a friend if they could stay with her in the evening and got extra front door keys cut for other friends so she would not have to struggle to get to the front door every time someone came over. Wendy also ordered a 'socks on', seat raisers and had extra banisters put on her stairs before her operation.

Wendy was lucky to be part of the G-Supp waiting list scheme*, so she did not have to wait the full nine months for her operation.

On her assessment day at the hospital she met the professor, nurses and anaesthetist who she said were all "Extremely helpful, they each explained what would happen during the operation and showed me the metal implant that I would have". Wendy felt as though she was given enough pre-op information but she explained that she was still "terrified".

After her operation Wendy spent a total of four days in hospital. She was admitted on the Friday and went down for her operation on Friday afternoon. On the Tuesday morning, she was told that she would be going home that day. This was a complete surprise, and she didn't really feel ready. She had only just tried using the stairs, and she wasn't shown how to do her exercises, just given a booklet which explained what to do. And no-one was available to help Wendy get ready to leave.

At home Wendy found it quite difficult, as she was in a lot of pain for the first two weeks. Also, she needed to visit a nurse three times a week for several weeks after her operation to dress an ulcer that had formed on her opposite heel.

Several months on, Wendy is still visiting the gym, which she is really enjoying, and goes twice a week. She explained that she is still too nervous to do floor exercises but believes that her confidence will grow in time.

She was grateful to be able to speak to people about their experiences and to get advice on which home aids to use. She said the 'socks on' home aid was great but she struggled to get her socks back off again. So if anyone wants to produce a 'socks off', Wendy will be first in the queue.

*G-Supp - planned use of independent sector hospital services to reduce NHS waiting list times.