National Joint Registry
www.njrcentre.org.uk
Working for patients, driving forward quality

STRATEGIC PLAN

APRIL 2015 TO MARCH 2018

Aims of the National Joint Registry

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Introduction

This NJR Strategic Plan covers the period 1 April 2015 to 31 March 2018. This Plan has been developed through consultation with the NJR Steering Committee including a review of and revision to the stated aims set out for the NJR in 2002.

This Plan sets out the key strategic focus areas (themes) for the NJR over this period, and outlines supporting programmes of work necessary to deliver this strategy.

This Plan is a living document and will be subject to ongoing review and amendment in line with changing business priorities and changes in the wider external environment.

To assist in the delivery of this Strategic Plan, an Annual Work Plan will be developed to set specific objectives and associated Key Performance Indicators (KPIs) to be achieved against each work programme in the coming year. This Plan will be agreed by the NJR Steering Committee.

In order to measure progress:

- On an annual basis the NJR will undertake a review, providing a summary of progress against each work programme identified in the Strategic Plan. Considerable detail is also shared through the NJR's Annual Report (Part One)
- On a monthly basis, the NJR Executive Committee will monitor progress against the work streams and KPIs identified in the Annual Work Plan. Progress, along with associated project plans and budget considerations, will be reported to the Steering Committee quarterly

Mission Statement

'The purpose of the National Joint Registry for England, Wales, and Northern Ireland is to collect high quality and relevant data about joint replacement surgery in order to provide an early warning of issues relating to patient safety.

In a continuous drive to improve the quality of outcomes and ensure the quality and cost effectiveness of joint replacement surgery, the NJR will monitor and report on outcomes and support and enable related research.'

Aims of the NJR

The aims of the NJR are:

- Monitor in real time the outcomes achieved by brand of prosthesis, hospital and surgeon, and highlight where these fall below an expected performance in order to allow prompt investigation and to support follow-up action
- Inform patients, clinicians, providers and commissioners of healthcare, regulators and implant suppliers of the outcomes achieved in joint replacement surgery
- Evidence variations in outcome achieved across surgical practice in order to inform best practice
- Enhance patient awareness of joint replacement outcomes to better inform patient choice and patients' quality of experience through engagement with patients and patient organisations
- Support evidence-based purchasing of joint replacement implants for healthcare providers to support quality and cost effectiveness
- Support suppliers in the routine post market surveillance of implants and provide information to clinicians, patients, hospital management and the regulatory authorities

Strategic themes and supporting work programmes

A strategic theme identifies broad tasks of work that are required to achieve the NJR's aims. Each strategic theme contains a number of work streams necessary for its successful delivery.

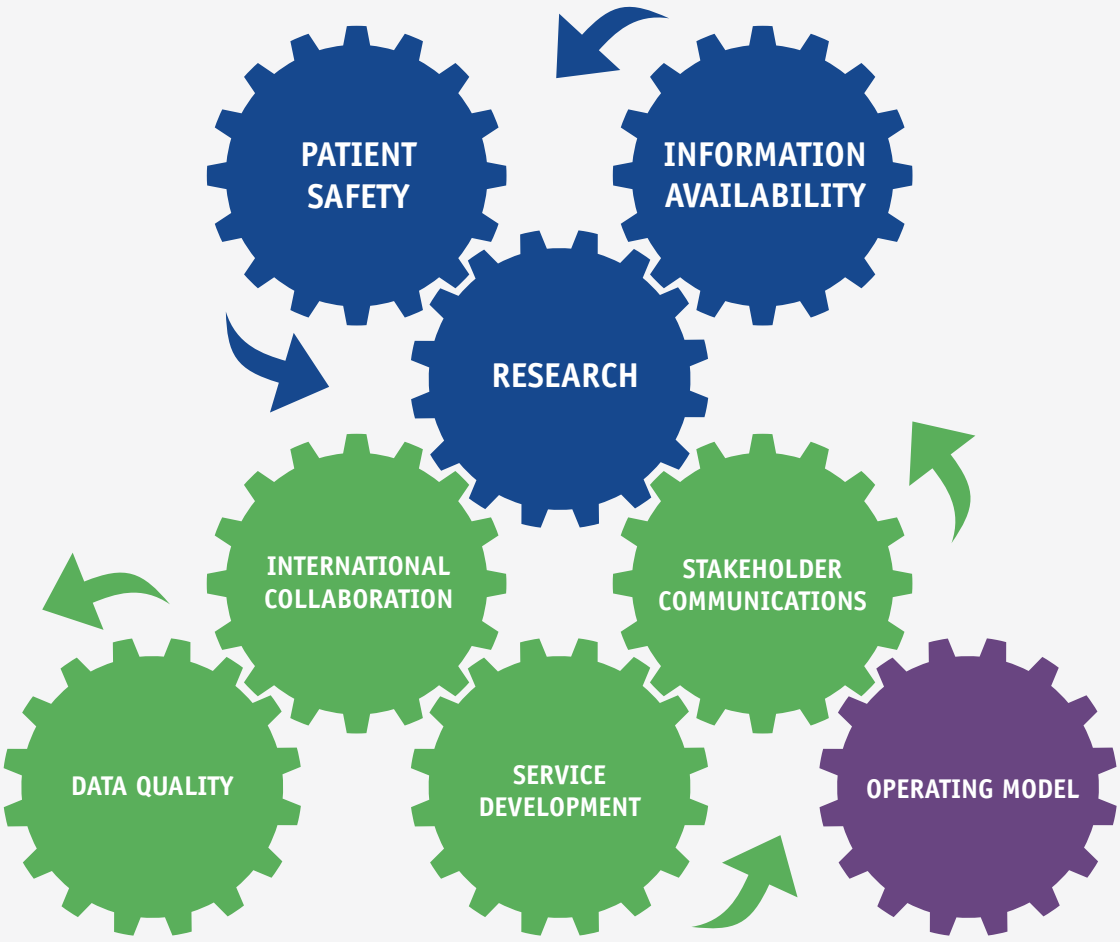
The NJR has three primary strategic themes:

- **Patient safety and patient outcomes**
- **Information availability and access to data**
- **Research**

These are underpinned by five supporting themes, each necessary in supporting the ongoing development of the NJR:

- **Data quality**
- **International collaboration**
- **Service development**
- **Stakeholder communications**
- **Operating model**

In the following section, the work programmes for each theme are listed. These programmes are the framework for the Annual Work Plan against which progress and activity will be monitored and reported on a monthly and quarterly basis.



1 Patient safety and patient outcomes

Provide services and develop processes that contribute directly to improvements in patient safety and patient outcomes.

The NJR will continue development of services and processes that contribute directly to improvements in patient safety, to support provision of real time monitoring of the outcomes of joint replacement surgery. Ongoing development of methods for the monitoring and detection of suspected outlier performance will continue in order that the NJR is able to identify potential issues before they become major problems and significant numbers of patients are affected.

This work is supported by the work of the Implant Performance Sub-committee and the Surgeon Outlier Sub-committee.

I.D	Work programme	
1.1	**Outlier monitoring strategy**	Develop and undertake ongoing review of the NJR Outlier Monitoring Strategy to cover: • Outlier monitoring and detection by central (NJR), local (hospital), and individual (surgeon) review of data and indicators • Review and escalation progresses • Indicator and methodological development
1.2	**Continuous / Real time monitoring**	Develop robust methods to enable continuous outlier monitoring, enhancing the ability to detect short term changes in performance
1.3	**Implant market entry**	Use the NJR evidence base to support entry of new products into the UK market, verify good performance and facilitate the early identification of failure, through ongoing support of the national Beyond Compliance initiative
1.4	**Implant post-market surveillance**	Apply robust methodologies for the identification of any outlying implant performance and support the timely removal of any failing devices from the market
1.5	**Risk and case mix adjustment**	Develop, apply and refine methodologies for adjusting NJR outcome based indicators to ensure that these provide a fair reflection of outcome when adjusted for differing levels of risk and case mix
1.6	**Patient reported outcome measures**	Extend the range of outcome measures through collection of patient reported outcome measures where this supports richer outcome data, most notably in the area of outcomes following shoulder surgery
1.7	**Component database**	Maintain the NJR component database and classification system to support the unique identification of individual components (UDI) whilst also providing component classification appropriate to assessment of in-category device performance. This will allow analysis of groups of implants that demonstrate similar characteristics

2 Information availability and access to NJR data

Provide stakeholders with rich, timely, and accessible information on joint replacement surgery.

The NJR is a key resource for information about hip, knee, ankle, elbow and shoulder joint replacement surgery. Increasing numbers of organisations and individuals are requesting data to support analysis, monitoring and auditing of outcomes, along with a wide range of NJR related information requirements.

With stakeholders from Government to individual patients making increasing demand for ready access to packaged NJR data and NJR-based outcome indicators, the NJR needs to continually develop systems and processes that satisfy the 'on-demand' nature of information requests from across its stakeholder groups, whilst ensuring strict adherence to information governance protocols restricting the availability of NJR data and the use to which the data can be put. Increasingly information needs to be available in an online, self-serve format.

I.D	Work programme	
2.1	**Information for patients and the public**	Develop and enhance online access to NJR data for patients and the public. This includes: • Development and publication of appropriate surgeon and hospital level indicators that support patient choice prior to joint replacement surgery, aligned with the Consultant Outcome Publications initiative. This includes publication of summary-level indicators in the form of dashboards • Provide online access to relevant NJR activity and outcomes data supporting patients in understanding trends • Investigate ways of providing patients with secure access to their personal NJR records, to establish what implants they have received and that these implants remain safe
2.2	**Information for clinicians**	Develop and enhance systems and processes that provide clinicians (with activity recorded on the NJR) secure access to data relating to their activity and outcomes, and meaningful benchmarks against which to compare. This work is to include provision of NJR indicators to support of consultant appraisal and revalidation Provide timely notification to surgeons of revision or mortality events relating to their patients
2.3	**Information for hospital / trust management**	Develop and enhance systems and processes that provide hospital / trust management (with activity recorded on the NJR) secure access to data relating to: • Activity undertaken within their facility outcomes achieved • Outcomes achieved • Comparison across clinical teams within the hospital • Comparison across hospitals and compared to nationally Provide timely notification to hospital management of any potential outlier status resulting from poor outcomes
2.4	**Information for industry**	Develop and enhance systems and processes that provide implant manufacturers/ suppliers with secure access to data relating to the use and performance of their devices Provide timely notification to device manufacturers of any potential outlier status resulting from poor outcomes of their device
2.5	**Information for commissioners**	Develop and enhance systems and processes that provide provider performance and patient outcome data to healthcare commissioners, including Best Practice Tariff, to support commissioners in assessing the safety and quality of orthopaedic surgery for their patients
2.6	**Cost effectiveness and Value for Money assessment**	Collect and report implant pricing data, to support buyers and users of orthopaedic implants in making value for money and cost effectiveness assessments, through combining cost and outcome data
2.7	**Online annual report**	Develop indicators traditionally published in the annual report into online interactive content, refreshed on a more timely (quarterly) basis, offering greater levels of analysis and interaction through a self-service model

3 Research

Facilitate the use of NJR data to support high quality research.

The NJR currently contains over 1.8 million records of hip, knee, ankle, elbow and shoulder procedures which, with appropriate governance, should be made available in anonymised form to those who wish to use the data for studies and research aimed at improving outcomes for patients.

Great strides have been made in developing a protocol for encouraging and assessing requests for the use of NJR data for research, and continuing development of the NJR website will ensure that the NJR becomes a valuable resource. Collaboration with other research organisations and national data collections will improve the quality of research on joint replacement surgery.

This work is supported by the NJR Research Sub-committee.

I.D	Work programme	
3.1	Research strategy	Develop, publish and undertake ongoing review of the NJR research strategy, outlining the NJR's approach to and objectives of its research function including the development of an NJR Research Academy. This is to include both NJR funded research and externally funded research based upon NJR data
3.2	Research function	Develop and strengthen the NJR research function, and its underpinning protocols, to support the development and publication of high quality, peer-reviewed research based upon NJR data
3.3	Orthopaedic research collaboration	Collaborate with leading bodies associated with evidence-based best practice in joint replacement surgery, to include ARUK, BOA, and DH, to develop joint approaches to supporting and funding research in this area
3.4	Outcomes studies	Extend the range of data available to underpin NJR research through collection and analysis of additional outcome measures such as patient experience data and long-term follow-up through ongoing PROMs (see 1.6)
3.5	Research platform	Increase accessibility to 'research ready' NJR data through an annual data-build for approved researchers via a secure access web-based portal, protecting the integrity of the data used for research

4 Data quality

Ensure that the quality, timeliness, and completeness of the data submitted to the NJR can support the needs of stakeholders and is in line with the mandatory status of the NJR.

The value of the NJR and its ability to inform local and national decision making is dependent upon the reliability and quality of the underlying data. A robust mechanism for the assessment of the quality of NJR data has, therefore, become increasingly important. Whilst the NJR is a mandatory data collection, efforts to ensure compliance and the submission of good quality data remain necessary, as does standardised monitoring and reporting of data quality across hospitals/units.

This work is supported by the NJR Data Quality Group, and the work of the NJR Regional Clinical Coordinator Network.

I.D	Work programme	
4.1	Data quality strategy	Develop, publish and undertake ongoing review of the NJR data quality strategy, detailing key objectives, measures and initiatives to be put in place to support the ongoing monitoring of and improvements in NJR data quality
4.2	Data quality measurement and reporting	In line with data quality strategy, develop measures that accurately reflect the underlying quality of NJR data for a contributing hospital unit Publish these measures, through a data quality dashboard, to support improvements in processes, and to support assessment of the value and accuracy of the data Undertake additional assessments of the quality of data recorded within the NJR, through appropriate sampling and data quality audits
4.3	Measuring compliance	Develop robust processes for the ongoing measurement and reporting of unit compliance with the NJR. This should include compliance of private sector providers, where privately funded activity will not flow through other routine NHS data flows
4.4	Local support for NJR compliance and data quality	Through the work of the NJR Regional Coordinators and the Regional Clinical Coordinator Network, develop support networks and resources for local hospital units to continuously monitor their NJR compliance and data quality, and to support them in making improvements to address causes of poor performance in these areas
4.5	Collaborate to maximise data validation and quality	Work across the sector to identify opportunities to promote the benefits of active engagement with NJR data and its validation including through orthopaedic registrar and speciality trainee programmes Provide additional, targeted external review of units with a range of expertise to assist areas of persistent poor compliance. This work will also consider the development of a kitemark for compliance with NJR requirements

5 International collaboration

Raise the awareness of the capabilities of the NJR internationally and share intelligence and best practice to improve patient safety and patient outcomes.

The NJR is the largest register of its kind in the world. It is becoming increasingly influential internationally, as a result of its implant outlier work and the publication of outcomes data. However, other international joint registries continue to publish strong evidence-based research and methodologies from which the NJR can learn.

With the majority of implants recorded in the NJR being used across the globe, collaboration with international partners can support the pooling of data regarding implant performance, and ultimately may support the earlier detection of device failure than would otherwise have been possible through any one single registry.

Increasing the international profile of the NJR, and working collaboratively with international partners will support the sharing of evidence-based best practice across the globe.

I.D	Work programme	
5.1	International collaboration	Develop collaboration partnerships with other international joint registries, directly and through the membership organisations such as the International Society of Arthroplasty Registries (ISAR) and the International Consortium of Orthopaedic Registries (ICOR) to share key learnings, best practice, upcoming developments and local issues
5.2	Horizon scanning	Keep abreast of changes in global device regulatory frameworks, in particular EU and US, and consider the impact upon future NJR service provision
5.3	Unique Device Identifiers	Implement changes necessary to support Unique Device Identifiers (UDI) across implantable medical devices, by preparing the NJR for changes necessary to support this implementation Support initiatives to harmonise component classifications across global orthopaedic registries, to support data sharing and development of a common language across registries
5.4	Global surveillance	Develop sharing protocols with international joint registries that support the pooling of data and resources to support global implant monitoring and surveillance, whilst preserving the security and confidentiality of UK data, and without compromise to the NJR's own strategic objectives

6 Service development

Develop NJR services that extend its benefits to a wider group of patients and stakeholders where cost effective to do so.

The NJR provides a number of services, ranging from the provision of a data collection application, a Performance Management System and a number of online reporting tools. These services can be extended, both in the type of data that they collect and to whom they are made available. The NJR has been extended beyond its original mandate and now collects data about ankle, shoulder and elbow replacement. The nature of the NJR services, being web based, also means that the services can easily be made available to other users, including those overseas. For a country wishing to start collecting data about joint replacement surgery, the NJR offers a well-established mechanism for data collection and reporting.

To date, interest in joining the NJR has been expressed by Republic of Ireland, Guernsey, Jersey, the Isle of Man and Scotland. Extending the NJR, both in the types of surgical procedures reported on and geographically, would extend its current and future benefits to a wider group of patients and clinicians and support greater economies of scale by spreading the cost of the NJR Service across a wider user base.

I.D	Work programme	
6.1	Linkage to other datasets	Extend the range and frequency of linkage between NJR and other data sets relevant to joint replacement surgery, where this data is seen to add value to stakeholders
6.2	Geographical extension	Promote the benefits of NJR data collection and reporting services to other potential geographies if cost effective and/or appropriate to do so
6.3	Extension to include additional joints	Promote the benefits of NJR data collection and reporting services to other potential types of surgery/interventions if cost effective and/or appropriate to do so

7 Stakeholder communications

Ensure that the benefits and outcomes of the work of the NJR are communicated effectively to a wide range of stakeholders.

The development of comprehensive stakeholder engagement and communication strategies are essential to ensure that stakeholders continue to be informed of the benefits of the NJR, and that these benefits are communicated across a wider audience. Such communication will include development and enhancement of existing channels such as the NJR Annual Report and NJR website, and some will involve new initiatives, such as the provision of improved information to patients to support patient choice and to international organisations.

The NJR Annual Report work programme is supported by the NJR Editorial Board.

I.D	Work programme	
7.1	Raise the profile of the NJR through a communications strategy	Develop, publish and implement an NJR communications strategy; using communication channels and resources to ensure that the profile of NJR products and services is raised across national and international stakeholder groups Monitor the reach of key messages to stakeholders and adapt the strategy in line with feedback
7.2	NJR Annual Report	Develop the annual report in line with stakeholder comments and feedback, to ensure this document continues to deliver the information of greatest value to stakeholders in a suitable format
7.3	Patient and public focused information	Develop and enhance patient and public facing information resources, to include the NJR Patient and Public Guide in line with stakeholder comments and feedback, to ensure these resources continue to deliver information of greatest value To work with and grow the NJR Patient Network to facilitate patient participation in the development of NJR publications and projects
7.4	Patient consent	Through awareness and promotion of the benefits of the NJR, develop strategies to measure and improve the level of NJR patient consent at individual hospital units
7.5	Develop the NJR website	Develop content for and format of the NJR website in line with information needs of visitors, supporting self-service access to the most frequently requested NJR information where possible
7.6	Professional relationships	Maintain and develop strong, cooperative relationships with specialist surgical associations, patient organisations, regulators, industry trade associations and legislative bodies

8 Operating model

Ensure effective delivery and management of the NJR service in the interest of all stakeholders.

Effective governance and an effective operating model is essential to underpin achievement of the NJR aims.

Governance includes data security, information governance, as well as the structures and procedures in place to support the operational management of the NJR. This also assures that the NJR continues to deliver value for money, and that the burden of cost falls fairly across stakeholders.

I.D	Work programme	
8.1	Governance	Review the governance arrangements and sub-committee structure of the NJR to ensure clear lines of communication, responsibility and authority Implement an NJR Executive Committee to support day to day governance of the registry Develop an NJR committee remuneration policy
8.2	Clinical governance	Implement changes to the NJR governance structure to strengthen clinical governance in the work of the NJR including implementation of a Medical Advisory Committee to provide clinical oversight to the work of the registry, and to provide a platform for dialogue with the profession
8.3	Economic model	Ensure that the underlying funding model for the NJR provides a sustainable financing model for the future running of the service, and represents a fair and equitable distribution of costs across stakeholder groups, in relation to the value / benefits derived by each group
8.4	Information governance protocols	Undertake ongoing review of NJR information governance protocols and procedures to ensure that the NJR remains compliant with relevant legislation in the handling and management of patient identifiable data, whilst ensuring that appropriate data requests (such as a patient's requests for their own data) are handled efficiently
8.5	Data entry / Data collection processes	Simplify and streamline NJR data collection processes, reducing the burden on the NHS in the collection of data required by the NJR, reducing or removing double entry of data wherever possible
8.6	Reprocurement	Ensure ongoing value for money from NJR contractual arrangements through market testing of services in 2015 for new contract period commencing 1 April 2016

To find out more about the NJR:

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