Impact on NHS workforce and resources

Resource impact
Published: 29 October 2020

www.nice.org.uk

The NICE guideline on joint replacement (primary): hip, knee and shoulder was published in June 2020. The guideline recommendations have been reviewed for their potential impact on the NHS workforce and resources.

The guideline covers care before, during and after hip, knee or shoulder replacement. It includes recommendations to ensure that people are given full information about their options for surgery, including anaesthesia. It offers advice for healthcare professionals on surgical procedures and ensuring safety during operations. It also offers guidance on providing support and rehabilitation before and after surgery.

The recommendations in the guideline were developed before the COVID-19 pandemic.

Recommendations likely to have an impact on resources

The recommendations most likely to have the greatest resource impact nationally (for England) are listed below.

- Offer a choice of partial or total knee replacement to people with isolated medial compartmental osteoarthritis **(recommendation 1.7.1)**.
- Offer resurfacing of the patella to people having primary elective total knee replacement **(recommendation 1.7.2)**.

Context

Hip, knee and shoulder joint replacements are among the most common orthopaedic operations performed in the UK. Around 90% of joint replacements are done to reduce pain and restore function in joints affected by osteoarthritis.

Surgical procedures for joint replacement vary. In addition, a wide range of joint implants are used. They can be made of metal, plastic or ceramic, and can be fixed into place using a variety of methods. These factors can all affect the longevity of the implant. They also have an effect on short-term outcomes such as postoperative pain and complications.

There are wide variations in the care provided before, during and after joint replacement surgery, particularly the provision of rehabilitation. This care is a vital factor in the success of this surgery. The guideline aims to ensure that people having joint replacement surgery understand the various options and are offered the best possible care before, during and after their surgery.

Services are commissioned by clinical commissioning groups or integrated care systems and providers are NHS hospital trusts.

Resource impact

The estimated financial impact of implementing recommendations 1.7.1 and 1.7.2 for England is a saving of around £0.7 million in 2020/21 rising to a saving of around £3.7 million in 2024/25, as set out in table 1 below.

Table 1 Potential resource impact of implementing recommendations 1.7.1 and 1.7.2

	2020/21	**2021/22**	**2022/23**	**2023/24**	**2024/25**

Implementation rate	20%	40%	60%	80%	100%
Total resource impact for people eligible for a partial knee replacement (£ million)	-0.8	-1.7	-2.5	-3.4	-4.2
Total resource impact for people not eligible for a partial knee replacement (£ million)	0.1	0.2	0.3	0.4	0.5
Total resource impact for England (£ million)	**-0.7**	**-1.5**	**-2.2**	**-3.0**	**-3.7**

The following benefits are anticipated from implementing these recommendations:

- A reduction in the cost of components resulting from the change from total knee to partial knee replacements (a saving of £2.1 million for England in year 5).
- A reduction in the number of knee revisions due to an increase in the number of people having patella resurfacing (a saving of £1.6 million for England in year 5 from around 180 less knee revisions).
- A potential reduction in length of stay arising from the switch from total knee to partial knee replacement.

There will also be an increase in costs due to the increase in the number of people having patella resurfacing. However, overall, the guideline is expected to be cost saving.

Support to put the recommendations into practice

The recommendations in this guideline were developed before the COVID-19 pandemic. It is acknowledged that the pandemic had an impact on the delivery of joint replacement surgery and that implementation of the recommendations in this guideline may have been delayed. See the National Joint Registry special report on the effects of the COVID-19 pandemic on joint replacement surgery.

Support from NICE

- See NICE's COVID-19 rapid guideline on arranging planned care in hospitals and diagnostic services for guidance on minimising risk from COVID-19 in the context of increasing or decreasing local prevalence. Planned care includes elective surgery.
- We are developing a NICE quality standard on primary hip, knee and shoulder joint replacement. The quality standard is expected to publish in March 2022 and will support improvement in the quality of care you provide or commission.
- Our perioperative care in adults guideline includes recommendations on preparing for surgery, keeping people safe during surgery and pain relief during recovery. It also makes recommendations on using the World Health Organization (WHO) surgical safety checklist, and how to adapt this to local use using the WHO surgical safety checklist implementation manual.

Avoiding implant selection errors

- The National Joint Registry (NJR) collects data on the implant components used during knee, ankle and shoulder joint replacement surgery to monitor performance. They have developed the NJR implant scanning interface application, which can be used pre- or intra-operatively to check compatibility of hip and knee prosthesis combinations to eliminate mismatches of components.

Service improvement

- The Getting it Right First Time (GIRFT) programme has published an orthopaedic follow-up report to the national specialty report on orthopaedics published in 2012. The report emphasises the finding in the original report on minimum volumes of operational activity per surgeon to achieve satisfactory outcomes. It states that in most cases, performing a higher volume of surgery equates to better outcomes. This should be taken into consideration when meeting the recommendation to deliver more partial knee replacements. The GIRFT follow-up report also states that specialist societies have since agreed that a minimum of 10 unicondylar or partial knee replacements should be performed per year.
- Several GIRFT best practice resources have been developed to help implement their recommendations and findings, many of which support NICE recommendations. This includes a pathway for people undergoing elective hip or knee replacement.

Note that external websites and resources referred to in this statement have been identified as potentially useful resources to help implement specific recommendations from the guideline. NICE has not made any judgement about the methodology, quality or usability of the websites or resources.

The Guideline Resource and Implementation Panel

The guideline resource and implementation panel reviews NICE guidelines that have a substantial impact on NHS resources. By 'substantial', we mean that:

- implementing a single guideline recommendation in England costs more than £1 million per year **or**
- implementing the whole guideline in England costs more than £5 million per year.

Panel members are from NICE, NHS England and NHS Improvement, Health Education England and NHS Clinical Commissioners. Topic experts are invited for discussions on specific topics, for example, from the Office for Health Improvement and Disparities, and voluntary and community support organisations.

The panel does not comment on or influence the guideline recommendations outside NICE's usual consultation processes and timelines.