NICE National Institute for Health and Care Excellence

NICE quality standard

Joint replacement (primary): hip, knee and shoulder

Quality standard

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This standard is based on NG157.

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Quality statement 1: Preoperative rehabilitation advice for hip and knee replacement

Quality statement

Adults who will have hip or knee replacement are given advice on preoperative rehabilitation when they are listed for surgery.

Rationale

Giving tailored and easy to understand advice on preoperative rehabilitation helps people optimise their health while waiting for hip or knee replacement. Preoperative rehabilitation helps prepare people for surgery, increases their ability to manage any complications, promotes understanding of and engagement with postoperative rehabilitation, and prepares them for life with a joint replacement.

Quality measures

The following measures can be used to assess the quality of care or service provision specified in the statement. They are examples of how the statement can be measured, and can be adapted and used flexibly.

Structure

Evidence of local arrangements to ensure that adults who will have hip or knee replacement receive advice on preoperative rehabilitation when they are listed for surgery.

Data source: Data can be collected from information recorded locally by provider organisations, for example, from clinical protocols. The Getting It Right First Time (GIRFT) orthopaedic surgery follow-up report (2020) includes the proportion of trusts who offer elective orthopaedic surgery and provide preoperative care that includes education and identifying patients at risk of a poor functional outcome for total knee replacement.

Process

Proportion of adults who will have hip or knee replacement who receive advice on preoperative rehabilitation when they are listed for surgery.

Numerator – the number in the denominator who receive advice on preoperative rehabilitation when they are listed for surgery.

Denominator – the number of adults who will have hip or knee replacement.

Data source: No routinely collected national data for this measure has been identified. Data can be collected from information recorded locally by healthcare professionals and provider organisations, for example, from patient records.

Outcome

a) Average health gain and improvement rate associated with patient-reported outcome measures (PROMs) for hip or knee replacement.

Data source: NHS Digital's PROMs collect pre- and post-operative data from patients having elective inpatient hip or knee replacement funded by NHS England. Health gain is reported at national, commissioning and provider levels. Improvement rates are reported at national and provider levels.

b) The percentage of patients reporting the results of their hip or knee replacement as 'excellent' or 'very good' and that their problems are 'much better' or a 'little better' after their operation.

Data source: Success and satisfaction scores are collected postoperatively as part of NHS Digital's PROMs. Success and satisfaction scores are reported at national level.

What the quality statement means for different audiences

Service providers (secondary care services) ensure that local arrangements are in place and staff are available to give advice on preoperative rehabilitation to adults when they are listed for hip or knee replacement.

Healthcare professionals (such as physiotherapists, occupational therapists or specialist nurses) ensure they know what preoperative rehabilitation advice to give adults when they are listed for hip or knee replacement. Information should be tailored to the person's needs, circumstances and preferences. Healthcare professionals ensure that they have training on how to deliver the advice effectively. This includes delivering the advice in a format that can be easily understood by adults who are to have hip or knee replacement and their family members or carers.

Commissioners ensure that they commission services that give advice on preoperative rehabilitation to adults when they are listed for hip or knee replacement.

Adults who are to have a hip or knee joint replacement receive advice on how they can look after their health and wellbeing while they are waiting to have their operation and after they have had it.

Source guidance

Joint replacement (primary): hip, knee and shoulder. NICE guideline NG157 (2020), recommendations 1.1.3, 1.1.4 and 1.2.1

Definition of terms used in this quality statement

Advice on preoperative rehabilitation

This includes advice on:

- exercises to do before and after surgery that will aid recovery
- lifestyle, including weight management, diet and smoking cessation
- information on preparing for surgery, including steps people can take to optimise their recovery
- wellbeing, including physical and mental health, and emotional wellbeing (see NICE's guidance on lifestyle and wellbeing)
- maximising functional independence and quality of life before and after surgery

- information about what to expect before, after and during surgery, including length of hospital stay, recovery and rehabilitation.

Advice should be tailored to the person's individual needs, circumstances and preferences. Information should be specific to the procedure they are being offered and delivered in a format that they and their family members or carers can easily understand. Patient resources from the Centre for Perioperative Care are an example of advice that can be given to people on how to prepare for planned surgery. [NICE's guideline on joint replacement (primary), recommendations 1.1.3, 1.1.4 and 1.2.1, and evidence review C]

Listed for surgery

When a person has been added to the surgical waiting list and before the operation itself is scheduled. [Expert opinion]

Equality and diversity considerations

Providers should make reasonable adjustments to support adults with additional needs so that they can participate in preoperative rehabilitation which helps them prepare for surgery and postoperative recovery. This may involve delivering assessment and education outside the hospital environment (for example, home assessment for adults with complex needs who are to have hip replacement; see the Royal College of Occupational Therapists' 2017 practice guideline on occupational therapy for people undergoing total hip replacement (member-only access). Additional needs include physical, sensory or learning disabilities, or cognitive impairment. Adults with communication difficulties or who do not speak or read English should also be supported. Adults should be invited to bring a relative, friend or carer, or have access to an interpreter (including British Sign Language) or advocate if needed. Adults (including family members or caregivers) with cognitive impairment may need more time to process the information. Advice should be given in a way that is culturally appropriate.

Statement 2: Choice between partial and total knee replacement

Quality statement

Adults with isolated medial compartmental osteoarthritis who will have knee replacement are given the choice of partial or total replacement.

Rationale

Adults who are offered a knee replacement should be given a choice of partial or total replacement if clinical and radiological assessment shows both are suitable options. Discussing the risks and benefits of each procedure helps the person choose what is most suitable for them, based on their personal circumstances and preferences.

Quality measures

The following measures can be used to assess the quality of care or service provision specified in the statement. They are examples of how the statement can be measured, and can be adapted and used flexibly.

Structure

a) Evidence of local processes to support a discussion that includes the risks and benefits of partial and total knee replacement with adults who have isolated medial compartmental osteoarthritis and will be having knee replacement.

Data source: No routinely collected national data for this measure has been identified. Data can be collected from information recorded locally by provider organisations, for example, from service protocols.

b) Evidence of service specifications to ensure that both total and partial knee replacements are available to adults with isolated medial compartmental osteoarthritis who will be having knee replacement.

Data source: No routinely collected national data for this measure has been identified. Data can be collected from information recorded locally by provider organisations, for example, from service specifications.

Process

Proportion of primary knee replacements that are partial knee replacements.

Numerator – the number in the denominator that are partial knee replacements.

Denominator – the number of primary knee replacements.

Data source: The National Joint Registry (NJR) collects data on the number of primary knee replacements that are unicondylar knee replacements. Data is presented in the 12-month and 36-month practice profiles for hospitals in the NJR's Surgeon and Hospital Profile service for hip, knee, ankle, elbow and shoulder joint replacement surgery.

What the quality statement means for different audiences

Service providers (secondary care services) ensure that adults with isolated medial compartmental osteoarthritis who will be having knee replacement are given the choice of either partial or total knee replacement. This is if clinical and radiological assessment shows both options are suitable, and after discussing the risks and benefits of both operations and considering personal circumstances and preferences.

Healthcare professionals (members of the orthopaedic multidisciplinary team) allow time to discuss the benefits and risks of partial and total knee replacement with adults who have isolated medial compartmental osteoarthritis and will be having knee replacement, and for whom both options are suitable. The choice of operation should take account of the outcome of clinical and radiological assessment and the adult's personal circumstances and preferences. Healthcare professionals work with colleagues to ensure that adults having knee replacement have the operation they have chosen.

Commissioners ensure that they commission services that provide both partial and total knee replacements. They should ensure that services provide adults who have isolated medial compartmental osteoarthritis and will be having knee replacement with an

opportunity to discuss the risks and benefits of each operation, if both options are suitable.

Adults who have isolated medial compartmental osteoarthritis who are having their knee joint replacedand could have either partial or total replacement discuss the risks and benefits of both operations, and their circumstances and preferences, with a member of the orthopaedic team. This is to help them decide whether to have only the affected part of their knee joint replaced, or the entire joint. Their choice of operation also takes account of their clinical circumstances and relevant aspects of their condition.

Source guidance

Joint replacement (primary): hip, knee and shoulder. NICE guideline NG157 (2020), recommendation 1.7.1

Definitions of terms used in this quality statement

Partial knee replacement

This operation involves only replacing the affected part of the knee, that is, the medial compartment. [Adapted from NICE's guideline on joint replacement (primary), methods – glossary]

Total knee replacement

This operation involves replacing both sides of the knee joint. Patella resurfacing may be done as part of a total knee replacement. A separate patella implant is attached to the back of the kneecap to connect and fit smoothly with the femoral implant. [Adapted from NICE's guideline on joint replacement (primary), methods – glossary]

Statement 3: Tranexamic acid during hip and knee replacement

Quality statement

Adults having hip or knee replacement are given tranexamic acid during surgery.

Rationale

Tranexamic acid helps to minimise blood loss during hip and knee replacement surgery and can reduce the need for blood transfusion.

Quality measures

The following measures can be used to assess the quality of care or service provision specified in the statement. They are examples of how the statement can be measured, and can be adapted and used flexibly.

Structure

Evidence of clinical protocols to ensure that adults who are having hip or knee replacement are given tranexamic acid during surgery.

Data source: No routinely collected national data for this measure has been identified. Data can be collected from information recorded locally by provider organisations, for example, from clinical protocols.

Process

Proportion of hip or knee replacement operations during which tranexamic acid is given.

Numerator – the number in the denominator during which tranexamic acid is given.

Denominator – the number of hip or knee replacement operations.

Data source: No routinely collected national data for this measure has been identified. Data can be collected from information recorded locally by healthcare professionals and provider organisations, for example, from patient records.

Outcome

Blood transfusion rates associated with hip or knee replacement surgery.

Data source: No routinely collected national data for this measure has been identified. Data can be collected from information recorded locally by healthcare professionals and provider organisations, for example, from patient records and electronic prescribing systems.

What the quality statement means for different audiences

Service providers (secondary care services) ensure that systems are in place so that adults having hip or knee replacement are given tranexamic acid during surgery.

Healthcare professionals (anaesthetists and orthopaedic surgeons) give tranexamic acid to adults (unless contraindicated) who are having hip or knee replacement. Anaesthetists administer intravenous tranexamic acid at the start of surgery and the orthopaedic surgeon applies it topically before wound closure.

Commissioners ensure that they commission services that give tranexamic acid to adults who are having hip or knee replacement.

Adults who are having hip or knee replacement surgery are given tranexamic acid during their operation. This helps blood to clot and reduces blood loss during surgery.

Source guidance

Joint replacement (primary): hip, knee and shoulder. NICE guideline NG157 (2020), recommendation 1.4.1

Definitions of terms used in this quality statement

Tranexamic acid

The administration and dose varies according to whether or not adults having hip or knee replacement have renal impairment.

If there is no renal impairment:

- give intravenous tranexamic acid, and
- apply 1 g to 2 g of topical (intra-articular) tranexamic acid diluted in saline after the final wash-out and before wound closure; ensure that the total combined dose of tranexamic acid does not exceed 3 g.

See the BNF or summary of product characteristics for the dosage of intravenous tranexamic acid.

For adults with mild to moderate renal impairment, give a reduced dose of intravenous tranexamic acid on its own, based on their serum creatinine level, as defined in the summary of product characteristics.

Severe renal impairment is one of the contraindications to tranexamic acid. [NICE's guideline on joint replacement (primary), recommendation 1.4.1]. For further contraindications, please check the summary of product characteristics.

In March 2022, topical (intra-articular) use of tranexamic acid was off label. See NICE's information on prescribing medicines.

During surgery

From the time an adult having hip or knee replacement enters the anaesthetic room to when they leave the postoperative recovery room and return to the ward. [Expert opinion]

Quality statement 4: Preventing implant selection errors

Quality statement

Adults having hip, knee or shoulder replacement have 2 'stop moments' during surgery so that implant details and the compatibility of all components can be checked.

Rationale

During surgery, healthcare professionals carry out sequential checks of implant details. The first check enables them to confirm whether the correct implant is about to be inserted and verify whether the implant components are compatible. The second 'stop moment' also provides the opportunity to identify and potentially correct implant selection errors before the end of the operation.

Quality measures

The following measures can be used to assess the quality of care or service provision specified in the statement. They are examples of how the statement can be measured, and can be adapted and used flexibly.

Structure

Evidence of surgical protocols which include 2 'stop moments' for predefined and systematic checks, during intraoperative formal 'time outs', to confirm that implant details are correct and all components are compatible.

Data source: No routinely collected national data for this measure has been identified. Data can be collected from information recorded locally by provider organisations, for example, from surgical protocols and local surgical safety standards for invasive procedures which align with the Centre for Perioperative Care's (2023) National safety standards for invasive procedures (NatSSIPs 2), full version ('implant verification').

Process

Proportion of hip, knee or shoulder replacement operations during which there are 2 'stop moments' to check implant details and the compatibility of all components.

Numerator – the number in the denominator during which there are 2 'stop moments' to check implant details and the compatibility of all components.

Denominator – the number of hip, knee or shoulder replacement operations.

Data source: No routinely collected national data for this measure has been identified. Data can be collected from information recorded locally by provider organisations, for example, completed surgical checklists.

Outcome

The proportion of hip, knee or shoulder replacement operations during which an incorrect implant (wrong side or size) or incompatible components have been inserted.

Numerator – the number in the denominator during which an incorrect implant (wrong side or size) or incompatible components have been inserted.

Denominator – the number of hip, knee or shoulder replacement operations.

Data source: The National Joint Registry (NJR) records details of the final implants used. Data can be collected from information recorded locally for implant selection errors that were corrected during hip, knee or shoulder replacement operations, for example, from hospital records. Data can be collected from information recorded locally on compatibility mismatches for partial knee or shoulder replacements, for example, from hospital records.

What the quality statement means for different audiences

Service providers (secondary care services) ensure that they have effective surgical protocols to support carrying out and documenting 2 'stop moments' during surgery to check implant details and the compatibility of all components. They monitor cases of failed implant verification, wrong implant insertion and 'near misses' which occur during hip,

knee or shoulder replacement operations, and report them locally and to national reporting systems.

Healthcare practitioners (surgeons and operating theatre staff) carry out and document 2 'stop moments' during surgery in which they check implant details and the compatibility of all components. The first check takes place every time an implant component is inserted and may occur more than once, depending on the type of joint replacement implant used. The second involves a final check of the compatibility of components before wound closure and provides an opportunity to identify and correct implant selection errors before the operation finishes. They report cases of failed implant verification, wrong implant insertion and 'near misses' locally and to national reporting systems.

Commissioners ensure that they commission services from providers who have protocols in place for carrying out and documenting 2 'stop moments' during surgery to check implant details and the compatibility of all components. They report and monitor cases of failed implant verification, wrong implant insertion and 'near misses' during hip, knee or shoulder replacement operations, along with monitoring existing safety checks.

Adults having hip, knee or shoulder replacement are cared for by healthcare professionals who stop twice during the operation to check that the correct implants have been used before the operation finishes.

Source guidance

Joint replacement (primary): hip, knee and shoulder. NICE guideline NG157 (2020), recommendation 1.6.1

Definitions of terms used in this quality statement

2 'stop moments'

These refer to 2 different checks, and are done at different stages of the operation. 'Stop moments' are formal 'time outs' in which all staff stop other actions.

The number of checks will vary according to the procedure and implants used.

The first 'stop moment' consists of a series of predefined and systematic checks each

time an implant is inserted. Dependent on the context, when the operator requests the implant, it may be appropriate for the runner (or another team member) to write down the requested implant on the whiteboard (or on paper). The runner obtains the implant and shows it to the operator, who reads aloud the details:

- type of implant
- laterality
- size (all relevant dimensions)
- expiry date
- sterility.

If the implant is custom made, the patient's name, date of birth and another identifier (NHS number or hospital number) should be cross-checked with the patient's identity band.

The runner opens the implant and the operator receives it. All packaging is kept. Labels are placed in the theatre record and patient notes (or electronic equivalent).

If there are subsequent implants (including screws), the same process is followed and, in addition, the operator should check:

- compatibility with the previous implant
- any other information (such as size).

The operator is defined as the surgeon, or any other healthcare professional or practitioner, performing the joint replacement. The NJR's Implant Scanning Interface can be used before implantation to provide a real-time alert on incorrect implants (size or side) or component incompatibility during hip or total knee replacements.

The second 'stop moment' is done before wound closure. It consists of an overall final check of the compatibility of implant components. The second 'stop moment' also provides a final opportunity to identify and potentially correct implant selection errors before the operation is completed. [Adapted from NICE's guideline on joint replacement (primary), recommendations 1.6.1 and 1.6.2 and the Centre for Perioperative Care's NatSSIPs 2, full version: 'During the procedure', implant verification chapter pages 44 to 45 and terminology]

Statement 5: Postoperative rehabilitation

Quality statement

Adults who have had hip, knee or shoulder replacement are given advice on postoperative rehabilitation before discharge.

Rationale

Discussion with a member of the physiotherapy or occupational therapy team before discharge from hospital allows people to get personalised advice on postoperative rehabilitation to help optimise their recovery. Advice may also include how to do self-directed rehabilitation at home, or arrangements for supervised group or individual outpatient rehabilitation depending on operation type and the person's specific needs.

Quality measures

The following measures can be used to assess the quality of care or service provision specified in the statement. They are examples of how the statement can be measured, and can be adapted and used flexibly.

Structure

a) Evidence of local arrangements to ensure that adults who have had hip, knee or shoulder replacement receive advice on postoperative rehabilitation before they are discharged from hospital.

Data source: No routinely collected national data for this measure has been identified. Data can be collected from information recorded locally by provider organisations, for example, from clinical protocols.

b) Evidence of the availability of members of the physiotherapy or occupational therapy teams to discuss postoperative rehabilitation with adults who had hip, knee or shoulder replacement and give advice.

Data source: Data can be collected from information recorded locally by provider organisations, for example, from staff rotas. The Getting It Right First Time (GIRFT) orthopaedic surgery follow-up report (2020) includes the proportion of trusts who offer elective orthopaedic surgery and report they have rehabilitation services for total knee replacement that are resourced and designed as 7-day services to ensure quality of care across the whole week.

Process

Proportion of adults who had hip, knee or shoulder replacement who receive advice on postoperative rehabilitation during a discussion with a member of the physiotherapy or occupational therapy team, before discharge from hospital.

Numerator – the number in the denominator who receive advice on postoperative rehabilitation during a discussion with a member of the physiotherapy or occupational therapy team, before discharge from hospital.

Denominator – the number of adults who have had hip, knee or shoulder replacement who are discharged from hospital.

Data source: No routinely collected national data for this measure has been identified. Data can be collected from information recorded locally by healthcare professionals and provider organisations, for example, from patient records or discharge summaries.

Outcome

a) Average health gain and improvement rate associated with patient-reported outcome measures (PROMs) for hip and knee replacement.

Data source:NHS Digital's PROMs collect pre- and postoperative data from patients having elective inpatient hip or knee replacement funded by NHS England. Health gain is reported at national, commissioning and provider levels. Improvement rates are reported at national and provider levels.

b) The percentage of patients reporting the results of their hip or knee replacement as 'excellent' or 'very good' and that their problems are 'much better' or a 'little better' after their operation.

Data source: Success and satisfaction scores are collected postoperatively as part of NHS Digital's PROMs. Success and satisfaction scores are reported at national level.

c) Average health gain and improvement rate associated with PROMs for shoulder replacement.

Data source: Preoperative data is collected by hospital trusts for the National Joint Registry (NJR) using the Oxford Shoulder Score. The NJR collects the postoperative score. Overall changes between pre-and postoperative scores for primary elective shoulder replacement using rolling data collected by the registry are published in NJR annual reports.

What the quality statement means for different audiences

Service providers (secondary care services) ensure that systems are in place for adults who have had hip, knee or shoulder replacement to have a discussion with a member of the physiotherapy or occupational therapy team before discharge from hospital. During this they are given advice on postoperative rehabilitation, based on their specific needs.

Healthcare professionals (members of the physiotherapy and occupational therapy team, such as physiotherapists, occupational therapists, or specialist rehabilitation support workers, supervised by a physiotherapist or occupational therapist) ensure that they have a discussion with adults who have had hip, knee or shoulder replacement, to give advice on postoperative rehabilitation before they are discharged from hospital. The advice might include how to do self-directed rehabilitation at home or arrangements for supervised group or individual outpatient rehabilitation depending on the operation received and their specific needs.

Commissioners ensure that they commission services that have the capacity for a member of the physiotherapy or occupational therapy team to have a discussion with adults who have had hip, knee or shoulder replacement, to give advice on postoperative rehabilitation. The advice is based on the adult's specific needs and given before they are discharged from hospital.

Adults who have had hip, knee or shoulder replacement are given postoperative rehabilitation advice based on their specific needs. The advice is given by a member of the

physiotherapy or occupational therapy team, in person, and before they leave hospital.

Source guidance

Joint replacement (primary): hip, knee and shoulder. NICE guideline NG157 (2020), recommendations 1.10.2 to 1.10.5

Definitions of terms used in this quality statement

Advice on postoperative rehabilitation

Postoperative rehabilitation needs are assessed through a discussion during the hospital stay. This is led by physiotherapy and occupational therapy teams but supported by the whole multidisciplinary team.

The type of rehabilitation offered should be based on the outcome of this discussion and reflect adults' clinical and personal circumstances, as follows:

- Adults who have had hip or knee replacement are given advice on self-directed rehabilitation.
- Adults who have had shoulder replacement are given advice on:
  - self-directed rehabilitation or
  - supervised group rehabilitation or
  - individual rehabilitation.
- Supervised group or individual outpatient rehabilitation is offered to adults who have had hip, knee or shoulder replacement who:
  - have difficulties managing activities of daily living or
  - have ongoing functional impairment leading to specific rehabilitation needs or
  - find that self-directed rehabilitation is not meeting their rehabilitation goals.

The advice is given before discharge from hospital and should consider the needs of adults with cognitive impairment, for whom supervised group or individual outpatient

rehabilitation should be considered.

Advice on self-directed rehabilitation includes:

- a clear understanding of rehabilitation goals and the importance of doing the exercises prescribed to achieve these goals
- a point of contact for advice and support.

For adults who have had hip replacement, the advice may include observing precautions recommended by the surgical team to prevent dislocation of the new, artificial joint. The advice will be dependent on daily activities, such as getting in or out of a car. [NICE's guideline on joint replacement (primary), recommendations 1.10.2 to 1.10.6 and adapted from the Royal College of Occupational Therapists' 2017 practice guideline on occupational therapy for adults undergoing total hip replacement (member-only access), recommendations 21 and 22]

Equality and diversity considerations

It is important for providers to make reasonable adjustments to support adults with additional needs. These additional needs include physical, sensory or learning disabilities, or cognitive impairment. Adults with cognitive impairment who have had hip, knee or shoulder replacement may need supervised group or individual outpatient rehabilitation. Adults with communication difficulties or who do not speak or read English should also be supported. Adults should have access to an interpreter (including British Sign Language) or advocate if needed. Adults with cognitive impairment may need more time to process information if they are to have self-directed rehabilitation.

Advice should be delivered in a way that is culturally appropriate.

Update information

Minor changes since publication

April 2023: Supporting information has been updated to align with the Centre for Perioperative Care's (2023) National safety standards for invasive procedures (NatSSIPs 2).

Links for data sources for NHS Digital's PROMS for hip and knee replacements have also been updated. Examples of commissioning organisations have been removed from the commissioner audience descriptor to reflect the range of current and future commissioning arrangements, and also that these organisations have a legal duty to commission services, which they are aware of.

June 2022: Reference to NICE's COVID-19 rapid guideline: arranging planned care in hospitals and diagnostic services in the definitions section of statement 1 has been removed because the guideline has been withdrawn.

April 2022: Data source information has been updated to reflect changes to the National Joint Registry website.

About this quality standard

NICE quality standards describe high-priority areas for quality improvement in a defined care or service area. Each standard consists of a prioritised set of specific, concise and measurable statements. NICE quality standards draw on existing NICE or NICE-accredited guidance that provides an underpinning, comprehensive set of recommendations, and are designed to support the measurement of improvement.

Expected levels of achievement for quality measures are not specified. Quality standards are intended to drive up the quality of care, and so achievement levels of 100% should be aspired to (or 0% if the quality statement states that something should not be done). However, this may not always be appropriate in practice. Taking account of safety, shared decision-making, choice and professional judgement, desired levels of achievement should be defined locally.

Information about how NICE quality standards are developed is available from the NICE website.

See our webpage on quality standards advisory committees for details about our standing committees. Information about the topic experts invited to join the standing members is available from the webpage for this quality standard.

NICE has produced a quality standard service improvement template to help providers make an initial assessment of their service compared with a selection of quality statements. This tool is updated monthly to include new quality standards.

NICE guidance and quality standards apply in England and Wales. Decisions on how they apply in Scotland and Northern Ireland are made by the Scottish government and Northern Ireland Executive. NICE quality standards may include references to organisations or people responsible for commissioning or providing care that may be relevant only to England.

Resource impact

NICE quality standards should be achievable by local services. The potential resource impact is considered by the quality standards advisory committee, drawing on resource

impact work for the source guidance. Organisations are encouraged to use the resource impact report and resource impact template for NICE's guideline on joint replacement (primary): hip, knee and shoulder to help estimate local costs.

Diversity, equality and language

Equality issues were considered during development and equality assessments for this quality standard are available. Any specific issues identified during development of the quality statements are highlighted in each statement.

Commissioners and providers should aim to achieve the quality standard in their local context, in light of their duties to have due regard to the need to eliminate unlawful discrimination, advance equality of opportunity and foster good relations. Nothing in this quality standard should be interpreted in a way that would be inconsistent with compliance with those duties.

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Endorsing organisation

This quality standard has been endorsed by NHS England, as required by the Health and Social Care Act (2012)

Supporting organisations

Many organisations share NICE's commitment to quality improvement using evidence-based guidance. The following supporting organisations have recognised the benefit of the quality standard in improving care for patients, carers, service users and members of the public. They have agreed to work with NICE to ensure that those commissioning or providing services are made aware of and encouraged to use the quality standard.

- Royal College of Nursing (RCN)
- The Arthroplasty Care Practitioner's Association (ACPA)
- Arthritis Action
- Royal College of Occupational Therapists (RCOT)