NICE National Institute for Health and Care Excellence

NICE quality standard

Surgical site infection

Quality standard
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Contents

Quality statements 4

Quality statement 1: Personal preparation for surgery 5

Quality statement 5

Rationale 5

Quality measures 5

What the quality statement means for different audiences 7

Source guidance 7

Equality and diversity considerations 7

Quality statement 2: Antibiotic prophylaxis 9

Quality statement 9

Rationale 9

Quality measures 9

What the quality statement means for different audiences 10

Source guidance 11

Definitions of terms used in this quality statement 11

Quality statement 3: Patient temperature 13

Quality statement 13

Rationale 13

Quality measures 13

What the quality statement means for different audiences 14

Source guidance 15

Definitions of terms used in this quality statement 15

Equality and diversity considerations 17

Quality statement 4: Intraoperative staff practices 18

Quality statement 18

Rationale 18

Quality measures 18

What the quality statement means for different audiences 19
Source guidance 20
Definitions of terms used in this quality statement 20
Quality statement 5: Information and advice on wound care 22
Quality statement 22
Rationale 22
Quality measures 22
What the quality statement means for different audiences 23
Source guidance 23
Equality and diversity considerations 24
Quality statement 6: Treatment of surgical site infection 25
Quality statement 25
Rationale 25
Quality measures 25
What the quality statement means for different audiences 26
Source guidance 27
Definitions of terms used in this quality statement 27
Quality statement 7: Surveillance 28
Quality statement 28
Rationale 28
Quality measures 28
What the quality statement means for different audiences 29
Source guidance 30
Definitions of terms used in this quality statement 30
Update information 31
About this quality standard 32
Diversity, equality and language 32

This standard is based on PH36, NG125 and CG65.

This standard should be read in conjunction with QS15, QS61 and QS161.

Quality statements

Statement 1 People having surgery are advised not to remove hair from the surgical site and are advised to have (or are helped to have) a shower, bath or bed bath the day before or on the day of surgery.

Statement 2 People having surgery for which antibiotic prophylaxis is indicated receive this in accordance with the local antibiotic formulary.

Statement 3 Adults having surgery under general or regional anaesthesia have normothermia maintained before, during (unless active cooling is part of the procedure) and after surgery.

Statement 4 People having surgery are cared for by an operating team that minimises the transfer of microorganisms during the procedure by following best practice in hand hygiene and theatre wear, and by not moving in and out of the operating area unnecessarily.

Statement 5 People having surgery and their carers receive information and advice on wound and dressing care, including how to recognise problems with the wound and who to contact if they are concerned.

Statement 6 People with a surgical site infection are offered treatment with an antibiotic that covers the likely causative organisms and is selected based on local resistance patterns and the results of microbiological tests.

Statement 7 People having surgery are cared for by healthcare providers that monitor surgical site infection rates (including post-discharge infections) and provide feedback to relevant staff and stakeholders for continuous improvement through adjustment of clinical practice.

Quality statement 1: Personal preparation for surgery

Quality statement

People having surgery are advised not to remove hair from the surgical site and are advised to have (or are helped to have) a shower, bath or bed bath the day before or on the day of surgery.

Rationale

It is not necessary to remove hair routinely to reduce the risk of surgical site infection, and the use of razors for hair removal may increase the risk of infection. If hair needs to be removed, this should be done by healthcare staff using electric clippers with a single-use head on the day of surgery. Preoperative showering is likely to reduce the number of microorganisms on the skin surrounding the incision and may therefore reduce the risk of infection. Preoperative advice (and assistance if needed) on personal preparation for surgery will help to ensure that people having surgery have clean skin without unnecessary micro-abrasions (from shaving), which will reduce the risk of surgical site infection.

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 people having surgery are advised not to remove hair from the surgical site.

Data source: Local data collection.

b) Evidence of local arrangements to ensure that people having surgery are advised to have (or are helped to have) a shower, bath or bed bath the day before or on the day of surgery.

Data source: Local data collection.

Process

a) Proportion of surgical procedures for which the person having surgery is advised not to remove hair from the surgical site.

Numerator – the number in the denominator for which the person having surgery is advised not to remove hair from the surgical site.

Denominator – the number of surgical procedures.

Data source: Local data collection.

b) Proportion of surgical procedures for which the person having surgery is advised to have (or is helped to have) a shower, bath or bed bath the day before or on the day of surgery.

Numerator – the number in the denominator for which the person having surgery is advised to have (or is helped to have) a shower, bath or bed bath the day before or on the day of surgery.

Denominator – the number of surgical procedures.

Data source: Local data collection.

Outcome

Feedback from people having surgery on whether they received the help they needed to have a shower, bath or bed bath the day before or on the day of surgery.

Data source: Local data collection.

What the quality statement means for different audiences

Service providers ensure that systems are in place for their staff to understand and act on the need to advise people having surgery not to remove hair from the surgical site and to advise them to have (or help them to have) a shower, bath or bed bath the day before or on the day of surgery.

Healthcare professionals advise people having surgery not to remove hair from the surgical site and advise them to have (or help them to have) a shower, bath or bed bath the day before or on the day of surgery.

Social care practitioners help people to have a shower, bath or bed bath the day before or on the day of surgery.

Commissioners ensure that they commission services from service providers that can demonstrate arrangements to ensure that people having surgery are advised not to remove hair from the surgical site and advised to have (or helped to have) a shower, bath or bed bath the day before or on the day of surgery.

Peoplehaving an operation are advised not to remove hair from the area of the body where they are having the operation and are advised to have a shower or bath either the day before or on the day of the operation. If they are not able to wash themselves, they should be helped by health or social care staff.

Source guidance

Surgical site infections: prevention and treatment. NICE guideline NG125 (2019, updated 2020), recommendations 1.2.4, 1.2.5 and 1.2.1

Equality and diversity considerations

This quality statement applies to all people preparing for surgery, regardless of their ability to carry out personal preparations themselves. If people need help with washing before surgery or if hair removal is necessary, they should be treated with dignity at all times.

Advice should be both age-appropriate and culturally appropriate. It should also be

accessible to people with additional needs such as physical, sensory or learning disabilities, and to people who do not speak or read English. People having surgery and their carers or parents should have access to an interpreter or advocate if needed.

Quality statement 2: Antibiotic prophylaxis

Quality statement

People having surgery for which antibiotic prophylaxis is indicated receive this in accordance with the local antibiotic formulary.

Rationale

Antibiotic prophylaxis is effective for preventing surgical site infections in certain procedures. However, the use of antibiotics for prophylaxis carries a risk of adverse effects (including Clostridium difficile-associated disease) and increased prevalence of antibiotic-resistant bacteria. The choice of antibiotic prophylaxis should cover the organisms most likely to cause infection and be influenced by the strength of the association between the antibiotic used and these adverse effects. Using a local antibiotic formulary should ensure that the most appropriate antibiotic, dose, timing of administration and duration are used for effective prophylaxis.

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 people having surgery for which antibiotic prophylaxis is indicated receive this in accordance with the local antibiotic formulary and that this is recorded.

Data source: Local data collection.

Process

Proportion of surgical procedures for which antibiotic prophylaxis is indicated for which the person having surgery receives antibiotic prophylaxis in accordance with the local antibiotic formulary and that this is recorded.

Numerator – the number in the denominator for which the person having surgery receives antibiotic prophylaxis in accordance with the local antibiotic formulary and that this is recorded.

Denominator – the number of surgical procedures for which antibiotic prophylaxis is indicated.

Data source: Local data collection.

What the quality statement means for different audiences

Service providers ensure that they develop or have access to a local antibiotic formulary and that their staff understand and act on the need to prescribe and administer antibiotic prophylaxis in accordance with this to people having surgery for which antibiotic prophylaxis is indicated. This includes having systems in place to record when antibiotic prophylaxis has been given.

Healthcare professionals offer antibiotic prophylaxis to people having surgery for which antibiotic prophylaxis is indicated, in accordance with the local antibiotic formulary and record when this has been given.

Commissioners ensure development of, or access to, a local antibiotic formulary and commission services from service providers that can demonstrate arrangements to prescribe and administer antibiotic prophylaxis to people having surgery for which antibiotic prophylaxis is indicated in accordance with the local antibiotic formulary.

People having certain types of operation for which there is a higher risk of infection are given antibiotics before surgery to help prevent infection.

Source guidance

Surgical site infections: prevention and treatment. NICE guideline NG125 (2019, updated 2020), recommendation 1.2.14

Definitions of terms used in this quality statement

Antibiotic formulary

An antibiotic formulary is a local policy document produced by a multi-professional team, usually in a hospital trust or commissioning group, combining best evidence and clinical judgement.

See also the Department of Health's UK 5-year antimicrobial resistance strategy 2013 to 2018 and the Department of Health Advisory Committee on Antimicrobial Resistance and Healthcare Associated Infection Antimicrobial stewardship 'Start smart – then focus': guidance for antimicrobial stewardship in hospitals (England). [Adapted from NICE's guideline on surgical site infections, full guideline (2008) and glossary]

Surgery that requires antibiotic prophylaxis

Surgery that requires antibiotic prophylaxis are:

- clean surgery involving the placement of a prosthesis or implant
- clean-contaminated surgery
- contaminated surgery
- surgery on a dirty or infected wound (requires antibiotic treatment in addition to prophylaxis).

Antibiotic prophylaxis should not be used routinely for clean non-prosthetic uncomplicated surgery because of the risk of adverse events, Clostridium difficile-associated disease, resistance and drug hypersensitivity.

See the terms used in this guideline section in NICE's guideline on surgical site infections for definitions of surgical wound classification. [NICE's guideline on surgical site infections,

recommendations 1.2.12, 1.2.13 and 1.2.17]

Quality statement 3: Patient temperature

Quality statement

Adults having surgery under general or regional anaesthesia have normothermia maintained before, during (unless active cooling is part of the procedure) and after surgery.

Rationale

During surgery, patients are kept in a stable condition by the operating team. All tissues heal most effectively in optimal conditions of oxygenation, perfusion and body temperature. Inadvertent perioperative hypothermia is a common but preventable complication of perioperative procedures that is associated with an increased risk of surgical site infection and other postoperative complications. Surgical patients are at risk of developing hypothermia before, during or after surgery. Maintaining normothermia throughout this period (except if cooling is required for medical reasons) will therefore reduce the risk of infection at the surgical site and ensure that patients feel comfortably warm at all times.

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 having surgery under general or regional anaesthesia have normothermia maintained before, during (unless active cooling is part of the procedure) and after surgery.

Data source: Local data collection.

Process

Proportion of surgical procedures on adults under general or regional anaesthesia in which the person having surgery has their core temperature measured and documented in accordance with NICE's guideline on hypothermia: prevention and management in adults having surgery.

Numerator – the number in the denominator in which the person having surgery has their core temperature measured and documented in accordance with NICE's guideline on hypothermia: prevention and management in adults having surgery.

Denominator – the number of surgical procedures on adults under general or regional anaesthesia.

Data source: Local data collection.

Outcome

Proportion of surgical procedures on adults under general or regional anaesthesia in which the person having surgery is normothermic before, during (unless active cooling is part of the procedure) and after surgery.

Numerator – the number in the denominator in which the person having surgery is normothermic before, during (unless active cooling is part of the procedure) and after surgery.

Denominator – the number of surgical procedures on adults under general or regional anaesthesia.

Data source: Local data collection.

What the quality statement means for different audiences

Service providers ensure that systems are in place to measure and document core temperature in accordance with NICE's guideline on hypothermia: prevention and management in adults having surgery and maintain normothermia for adults having

surgery under general or regional anaesthesia before, during (unless active cooling is part of the procedure) and after surgery.

Healthcare professionals measure and document core temperature in accordance with NICE's guideline on hypothermia: prevention and management in adults having surgery and maintain normothermia for adults having surgery under general or regional anaesthesia before, during (unless active cooling is part of the procedure) and after surgery.

Commissioners commission services from service providers that can demonstrate arrangements to ensure that they maintain normothermia for adults having surgery under general or regional anaesthesia before, during (unless active cooling is part of the procedure) and after surgery.

Adults having an operation under a general anaesthetic or a regional anaesthetic (which affects a large part of the body, such as a limb or the lower half of the body) are kept comfortably warm (at normal body temperature) before, during and after the operation to help reduce the risk of infection.

Source guidance

Surgical site infections: prevention and treatment. NICE guideline NG125 (2019, updated 2020), recommendation 1.3.12

Definitions of terms used in this quality statement

The following definitions have been adapted from NICE's guideline on hypothermia: prevention and management in adults having surgery.

Adults

People aged 18 years and over.

Regional anaesthesia

Central neuraxial block.

Normothermia

A core temperature range of 36.5°C to 37.5°C.

Before surgery

The preoperative phase, defined as 1 hour before induction of anaesthesia (when the patient is prepared for surgery on the ward or in the emergency department).

During surgery

The intraoperative phase, defined as total anaesthesia time (including the time in the anaesthetic room before induction of anaesthesia).

After surgery

The postoperative period, defined as 24 hours after entry into the recovery area (which will include transfer to and time spent on the ward).

Perioperative pathway

The continuous period of the preoperative, intraoperative and postoperative phases.

Measurement and documentation of core temperature

In accordance with NICE's guideline on hypothermia: prevention and management in adults having surgery, measure and document core temperature:

- in the hour before the patient leaves the ward or emergency department [recommendation 1.2.2]
- again before induction of anaesthesia and then every 30 minutes until the end of surgery [recommendation 1.3.1 (key priority for implementation)]
- on admission to the recovery room and then every 15 minutes [recommendation 1.4.1 (key priority for implementation)]
- on arrival at the ward [recommendation 1.4.2]

- every 4 hours on the ward [recommendation 1.4.2].

This quality statement does not cover people undergoing therapeutic hypothermia or people with severe head injuries resulting in impaired temperature control. Other exclusions may apply at certain points on the perioperative pathway, such as when surgery needs to be expedited for clinical urgency. NICE's guideline on hypothermia: prevention and management in adults having surgery does not cover children and young people (aged less than 18 years), pregnant women or people undergoing local anaesthesia, but it is recognised that users of the quality standard may wish to consider how the quality statement on normothermia may apply to these groups.

Equality and diversity considerations

This quality statement may not apply to all pregnant women, because they are not covered by NICE's guideline on hypothermia: prevention and management in adults having surgery. Because of the physiological changes in pregnancy, the needs of pregnant women may need to be considered separately from non-pregnant women for some types or aspects of surgery. Similarly, the guideline does not cover children (aged less than 18 years). Users of the quality standard will need to apply clinical judgement in considering how the quality statement on patient temperature applies to these groups.

Quality statement 4: Intraoperative staff practices

Quality statement

People having surgery are cared for by an operating team that minimises the transfer of microorganisms during the procedure by following best practice in hand hygiene and theatre wear, and by not moving in and out of the operating area unnecessarily.

Rationale

In order to reduce the risk of surgical site infection, the risk of microbial contamination of the surgical site from the theatre environment needs to be minimised. Staff practices aimed at achieving this are known collectively as theatre discipline. In order to maintain theatre discipline, a number of practices should be followed that include using appropriate theatre wear and minimising movement of people in and out of the operating area. Effective hand decontamination will also reduce the risk of transferring microorganisms during the procedure, and this is most likely to be achieved if hand jewellery, artificial nails and nail polish are removed before decontamination takes place.

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 operating teams remove any hand jewellery, artificial nails and nail polish before starting surgical hand decontamination.

Data source: Local data collection.

b) Evidence of local arrangements to ensure that operating teams follow practices for

surgical hand decontamination in accordance with NICE's guideline on surgical site infections, recommendations 1.3.1 and 1.3.2.

Data source: Local data collection.

c) Evidence of local arrangements to ensure that staff wear specific non-sterile theatre wear in all areas where operations are undertaken.

Data source: Local data collection.

d) Evidence of local arrangements to ensure that operating teams minimise any staff movements in and out of the operating area.

Data source: Local data collection.

e) Evidence of local arrangements to ensure that spot checks are carried out in relation to structure measures a), b), c) and d).

Data source: Local data collection.

What the quality statement means for different audiences

Service providers ensure that policies and procedures are in place and implemented to ensure that operating teams minimise the transfer of microorganisms during surgery by following best practice in hand hygiene and theatre wear, and by not moving in and out of the operating area unnecessarily.

Operating teams follow practices that minimise the transfer of microorganisms during surgery by following best practice in hand hygiene and theatre wear, and by not moving in and out of the operating area unnecessarily.

Commissioners commission services from service providers that have policies and procedures to ensure that operating teams follow practices that minimise the transfer of microorganisms during surgery by following best practice in hand hygiene and theatre wear, and by not moving in and out of the operating area unnecessarily.

People having an operation are cared for by an operating team that minimises the chances that microorganisms will be transferred during the operation by following best practice when cleaning their hands and by wearing the correct type of clothing, and by not moving in and out of the operating area unnecessarily.

Source guidance

Surgical site infections: prevention and treatment. NICE guideline 125 (2019, updated 2020), recommendations 1.2.7, 1.2.8, 1.2.10, 1.2.11, 1.3.1 and 1.3.2

Definitions of terms used in this quality statement

Best practice in hand hygiene

Best practice in hand hygiene includes the following:

- The operating team should remove hand jewellery, artificial nails and nail polish before operations.
- The operating team should wash their hands prior to the first operation on the list using an aqueous antiseptic surgical solution, with a single-use brush or pick for the nails, and ensure that hands and nails are visibly clean.
- Before subsequent operations, hands should be washed using either an alcohol hand rub or an antiseptic surgical solution. If hands are soiled then they should be washed again with an antiseptic surgical solution.

[NICE's guideline on surgical site infections, recommendations 1.2.10, 1.2.11, 1.3.1 and 1.3.2]

Best practice in theatre wear

Best practice in theatre wear includes the following:

- Staff should wear specific non-sterile theatre wear (scrub suits, masks, hats and overshoes) in all areas where operations are undertaken.
- Staff wearing non-sterile theatre wear should keep their movements in and out of the operating area to a minimum.

[NICE's guideline on surgical site infections, recommendations 1.2.7 and 1.2.8]

Quality statement 5: Information and advice on wound care

Quality statement

People having surgery and their carers receive information and advice on wound and dressing care, including how to recognise problems with the wound and who to contact if they are concerned.

Rationale

Appropriate wound and dressing care promotes healing and reduces the risk of infection. Providing information and advice on this to people having surgery and their carers will reduce the risk of them doing something to the wound or dressing that might contaminate the site with microorganisms unnecessarily. If a person develops a surgical site infection, early treatment is essential to prevent the infection getting worse. Providing information on how to recognise problems with a wound and who to contact if they are concerned should lead to prompt treatment for those who need it and reduce infection-related morbidity.

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 people having surgery and their carers receive information and advice on wound and dressing care, including how to recognise problems with the wound and who to contact if they are concerned.

Data source: Local data collection.

Process

Proportion of surgical procedures for which the person having surgery and their carers receive information and advice on wound and dressing care, including how to recognise problems with the wound and who to contact if they are concerned.

Numerator – the number in the denominator for which the person having surgery and their carers receive information and advice on wound and dressing care, including how to recognise problems with the wound and who to contact if they are concerned.

Denominator – the number of surgical procedures.

Data source: Local data collection.

What the quality statement means for different audiences

Service providers ensure that protocols are in place to provide people having surgery and their carers with information and advice on wound and dressing care, including how to recognise problems with the wound and who to contact if they are concerned.

Healthcare professionals provide people having surgery and their carers with information and advice on wound and dressing care, including how to recognise problems with the wound and who to contact if they are concerned.

Commissioners commission services from service providers that can demonstrate that they have protocols to provide people having surgery and their carers with information and advice on wound and dressing care, including how to recognise problems with the wound and who to contact if they are concerned.

People having an operation and their carers are given information and advice about how to look after the wound when they go home, how to recognise problems with the wound and who to contact if they are concerned about it.

Source guidance

Surgical site infections: prevention and treatment. NICE guideline NG125 (2019, updated

2020), recommendations 1.1.2 and 1.1.3

Equality and diversity considerations

Information should be both age-appropriate and culturally appropriate. It should also be accessible to people with additional needs such as physical, sensory or learning disabilities, and to people who do not speak or read English. People having surgery and their carers or parents should have access to an interpreter or advocate if needed.

Quality statement 6: Treatment of surgical site infection

Quality statement

People with a surgical site infection are offered treatment with an antibiotic that covers the likely causative organisms and is selected based on local resistance patterns and the results of microbiological tests.

Rationale

People who develop an infection need to receive the treatment that is most likely to be effective in order to minimise associated morbidity. It is also important that they are not given more treatment than they need, because antibiotic therapy carries risks of adverse reactions, the development of resistant bacteria and Clostridium difficile-associated disease. Taking into account local resistance patterns and the results of microbiological tests will help to ensure that people receive the most appropriate treatment.

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 people with a surgical site infection are offered treatment with an antibiotic that covers the likely causative organisms and is selected based on local resistance patterns and the results of microbiological tests.

Data source: Local data collection.

Process

Proportion of surgical site infections for which the person with the infection receives treatment with an antibiotic that covers the likely causative organisms and is selected based on local resistance patterns and the results of microbiological tests.

Numerator – the number in the denominator for which the person with the infection receives treatment with an antibiotic that covers the likely causative organisms and is selected based on local resistance patterns and the results of microbiological tests.

Denominator – the number of surgical site infections.

Data source: Local data collection.

What the quality statement means for different audiences

Service providers ensure that systems are in place (including development of, or access to, a local antibiotic formulary) to offer people with a surgical site infection treatment with an antibiotic that covers the likely causative organisms and is selected based on local resistance patterns and the results of microbiological tests.

Healthcare professionals offer people with a surgical site infection treatment with an antibiotic that covers the likely causative organisms and is selected in accordance with the local antibiotic formulary and based on local resistance patterns and the results of microbiological tests.

Commissioners ensure development of, or access to, a local antibiotic formulary and that they commission services from service providers that can demonstrate that systems are in place to offer people with a surgical site infection treatment with an antibiotic that covers the likely causative organisms and is selected based on local resistance patterns and the results of microbiological tests.

People with a surgical site infection are given an antibiotic that has been chosen because it is effective for the microorganisms most likely to have caused the infection. The healthcare team should look at the results of tests carried out on samples from the wound and they should also consider which antibiotics are most likely to work in the area local to

the hospital, because the effectiveness of antibiotics can vary from place to place.

Source guidance

Surgical site infections: prevention and treatment. NICE guideline NG125 (2019, updated 2020), recommendation 1.4.9

Definitions of terms used in this quality statement

Surgical site infection

The presence of a surgical site infection can be determined using the definitions in Surgical Site Infection Surveillance Service (SSISS) protocol for the surveillance of surgical site infection, which are modified from those used by the US Centers for Disease Control (CDC). Other measures that are also based on clinical signs and symptoms are available. The term does not include colonisation.

Antibiotics

An antibiotic formulary is a local policy document produced by a multi-professional team, usually in a hospital trust or commissioning group, combining best evidence and clinical judgement.

See also the Department of Health's UK 5-year antimicrobial resistance strategy 2013 to 2018 and the Department of Health Advisory Committee on Antimicrobial Resistance and Healthcare Associated Infection Antimicrobial stewardship 'Start smart – then focus': guidance for antimicrobial stewardship in hospitals (England). [Adapted from NICE's guideline on surgical site infections, full guideline (2008) and glossary]

Quality statement 7: Surveillance

Quality statement

People having surgery are cared for by healthcare providers that monitor surgical site infection rates (including post-discharge infections) and provide feedback to relevant staff and stakeholders for continuous improvement through adjustment of clinical practice.

Rationale

Surveillance data on surgical site infection rates can inform and influence steps taken to minimise the risk of infection, as well helping to clearly communicate the risks to patients. Some infections take time to develop and may not become apparent until after the patient has been discharged from hospital. Therefore, surveillance for infections in hospitalised patients only is likely to underestimate the true infection rate – a problem exacerbated by the increasing trend towards shorter postoperative hospital stays and day surgery. Therefore, systems that identify surgical site infection after patients leave hospital enhance the value of surveillance and the provider's ability to deliver interventions to reduce the risk of infections based on their own results, leading to continuous quality improvement.

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 the existence of surveillance systems that capture inpatient and post-discharge surgical site infections.

Data source: Local data collection. Also contained within NICE's guideline on healthcare-associated infections, quality improvement statement 3, evidence of achievement 6.

b) Evidence of local arrangements to ensure surveillance data on surgical site infection rates (including post-discharge infections) are fed back to relevant staff and stakeholders.

Data source: Local data collection. Also contained within NICE's guideline on healthcare-associated infections, quality improvement statement 3, evidence of achievement 13.

c) Evidence of local arrangements to ensure that surveillance data on surgical site infection rates (including post-discharge infections) are used for continuous improvement through adjustment of clinical practice.

Data source: Local data collection.

Outcome

Readmissions for surgical site infection.

Data source: Local data collection. Data collected as part of the Surgical Site Infection Surveillance Service (SSISS) are published by Public Health England in annual reports available through their website. This includes readmissions data from individual hospitals, collected as part of the Department of Health's mandatory surveillance scheme (orthopaedic surgery).

What the quality statement means for different audiences

Service providers ensure that systems are in place to monitor surgical site infection rates (including post-discharge infections) and provide feedback to their clinical and non-clinical staff and stakeholders for continuous improvement through adjustment of clinical practice.

Healthcare professionals and public health practitioners act on information provided to them on surgical site infection rates (including post-discharge infections) to adjust clinical practice for continuous improvement.

Commissioners commission services from service providers that can demonstrate that they monitor surgical site infection rates (including post-discharge infections) and provide feedback to relevant staff and stakeholders for continuous improvement through adjustment of clinical practice.

People having an operation are cared for by healthcare services that monitor surgical site infection rates, share this information with patients and relevant staff, and use it to help improve services and minimise future infection rates.

Source guidance

Healthcare-associated infections: prevention and control. NICE guideline PH36 (2011), quality improvement statement 3

Definitions of terms used in this quality statement

Surgical site infection

The presence of a surgical site infection can be determined using the definitions in the SSISS protocol for the surveillance of surgical site infection, which are modified from those used by the US Centers for Disease Control (CDC). Other measures that are also based on clinical signs and symptoms are available. The term does not include colonisation.

Surgical site infection rates (including post-discharge)

Many surgical site infections present after discharge from hospital. Comparison of post-discharge surveillance data is difficult because it depends on the methods used to detect infections. The method of surveillance should be clear so that comparisons can be made. A protocol for the surveillance of surgical site infection: surgical site infection surveillance service is available from Public Health England. The Department of Health UK 5-year antimicrobial resistance strategy highlights access to and use of surveillance data in the context of bacterial resistance.

Staff and stakeholders

Staff may include the board and individual clinical units in a hospital setting. Stakeholders include patients, GPs, commissioners and other local health and social care organisations. [Adapted from NICE's guideline on healthcare-associated infections, quality improvement statement 3]

Update information

Minor changes since publication

April 2019: Changes have been made to align this quality standard with the updated NICE guideline on surgical site infections. References and source guidance sections have been updated.

March 2018: A cross reference in the definitions section of statement 3 was updated to reflect changes to the updated NICE guideline on hypothermia: prevention and management in adults having surgery.

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.

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.

Good communication between healthcare professionals, social care practitioners and public health practitioners and people having surgery and their carers or parents is essential. Treatment, care and support, and the information given about it, should be both age appropriate and culturally appropriate. It should also be accessible to people with additional needs such as physical, sensory or learning disabilities, and to people who do not speak or read English. People having surgery and their carers or parents should have access to an interpreter or advocate if needed.

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.

- British Association of Dermatologists (BAD)
- Independent Healthcare Advisory Services
- Royal College of Nursing (RCN)
- Royal College of Physicians (RCP)
- Royal College of Surgeons of Edinburgh
- UK Clinical Pharmacy Association (UKCPA)
- College of General Dentistry