NICE National Institute for Health and Care Excellence

NICE quality standard

Venous thromboembolism in adults

Quality standard

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Contents

This standard replaces QS3 and QS29.

This standard is based on NG89 and NG158.

This standard should be read in conjunction with QS2 and QS120.

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Statement 2People aged 16 and over who are discharged with lower limb immobilisation are assessed to identify their risk of VTE. **[new 2021]**

Statement 3People aged 18 and over with a deep vein thrombosis (DVT) Wells score of 2 points or more have a proximal leg vein ultrasound scan within 4 hours of it being requested. **[2013, updated 2021]**

Statement 4People aged 18 and over taking anticoagulation treatment after a VTE have a review at 3 months and then at least once a year if they continue to take it long term. **[2013, updated 2021]**

Statement 5People aged 18 and over having outpatient treatment for suspected or confirmed low-risk pulmonary embolism (PE) have an agreed plan for monitoring and follow-up. **[new 2021]**

In 2021, this quality standard was updated and statements prioritised in 2010 and 2013 were updated [2010 or 2013, updated 2021] or replaced [new 2021]. For more information, see update information.

Statements from the 2010 quality standard for venous thromboembolism in adults: reducing the risk in hospital and the 2013 quality standard for venous thromboembolism in adults: diagnosis and management that are still supported by the evidence may still be useful at a local level. They are available as PDFs.

NICE has developed guidance and a quality standard on people's experiences using adult NHS services and adult mental health services (see the NICE Pathway on patient experience in adult NHS services and service user experience in adult mental health services).

Statements 2 and 4 in the NICE quality standard on patient experience in adult NHS services are particularly relevant in the context of supporting adults with reducing the risk of venous thromboembolism (VTE) or diagnosing and treating VTE.

Other quality standards that should be considered when commissioning or providing services for venous thromboembolic disease services include:

- Stroke in adults. NICE quality standard 2
- Medicines optimisation. NICE quality standard 120

A full list of NICE quality standards is available from the quality standards topic library.

Quality statement 1: Timing of pharmacological venous thromboembolism prophylaxis

Quality statement

People aged 16 and over who are in hospital and assessed as needing pharmacological venous thromboembolism (VTE) prophylaxis start it as soon as possible and within 14 hours of hospital admission. **[2010, updated 2021]**

Rationale

VTE risk assessments are carried out for most people admitted to hospital, but the results are not always acted on promptly, meaning that pharmacological prophylaxis can be delayed and the risk of hospital-acquired thrombosis increased. Ensuring that prophylaxis is started as soon as possible and within 14 hours of hospital admission for medical, surgical and trauma patients will reduce the chance of VTE.

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 arrangements to ensure that people aged 16 and over who are in hospital and assessed as needing pharmacological VTE prophylaxis start it as soon as possible and within 14 hours of hospital admission.

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 service protocols and prescribing systems.

Process

Proportion of people aged 16 and over who are in hospital and assessed as needing

pharmacological VTE prophylaxis who start it within 14 hours of hospital admission.

Numerator – the number in the denominator who start pharmacological VTE prophylaxis within 14 hours of hospital admission.

Denominator – the number of people aged 16 and over who are in hospital and assessed as needing pharmacological VTE prophylaxis.

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

Rates of hospital-acquired thrombosis (HAT).

Data source: Data can be collected from information recorded locally by healthcare professionals and provider organisations, for example from patient records. The Royal National Orthopaedic Hospital, NHS England and NHS Improvement's GIRFT Thrombosis Survey includes the number of HAT cases.

What the quality statement means for different audiences

Service providers (secondary care services) ensure that written clinical protocols are in place so that people aged 16 and over who are in hospital and assessed as needing pharmacological VTE prophylaxis start it as soon as possible and within 14 hours of hospital admission. They also have clinical protocols on considering an adjusted dose of low molecular weight heparin (LMWH) for people who are at extremes of body weight or have impaired renal function. They ensure that they have healthcare professionals available to carry out the assessment and prescribing systems designed to start VTE prophylaxis within this timeframe.

Healthcare professionals (such as pharmacists, advanced nurse practitioners and doctors) prescribe pharmacological VTE prophylaxis to people aged 16 and over who are in hospital and assessed as needing pharmacological VTE prophylaxis. They discuss the medicine with the person and involve them in making decisions about it, and give them verbal and written information on the importance of using pharmacological VTE prophylaxis correctly and possible side effects. They make sure that the person starts treatment as soon as possible and within 14 hours of hospital

admission. For people at extremes of body weight or with impaired renal function, they consider adjusting the dose of LMWH in line with the summary of product characteristics and locally agreed protocols.

Commissioners (clinical commissioning groups) ensure that services have written clinical protocols in place for people in hospital who are assessed as needing pharmacological VTE prophylaxis to start it as soon as possible and within 14 hours of hospital admission. They also ensure they have clinical protocols on considering an adjusted dose of LMWH for people who are at extremes of body weight or have impaired renal function. They ensure that services have healthcare professionals available to carry out the assessment and prescribing systems designed to start VTE prophylaxis within this timeframe.

Peopleaged 16 and over who are in hospital and who need medicine to prevent blood clots start taking the medicine within 14 hours of being admitted to hospital. People who have a very low or high body weight or whose kidney function is impaired have the dose of medicine they are given adjusted. They discuss the medicine with a healthcare professional and make decisions about taking it. Their healthcare professional explains and gives them written information about how to use the medicine and any possible side effects.

Source guidance

Venous thromboembolism in over 16s: reducing the risk of hospital-acquired deep vein thrombosis or pulmonary embolism. NICE guideline NG89 (2018), recommendations 1.1.4 and 1.1.7

Definition of terms used in this quality statement

People aged 16 and over who are in hospital

This includes medical, surgical and trauma patients. NICE's guideline on venous thromboembolism in over 16s, sections 1.4 to 1.15, should be referred to for population-specific recommendations on different timings and types of pharmacological VTE prophylaxis.

[NICE's guideline on venous thromboembolism in over 16s, recommendations 1.1.4, 1.1.6 and 1.1.7]

Hospital admission

Admission as an inpatient, where a bed is provided for 1 or more nights, or admission as a day patient, where a bed is provided for a procedure including surgery or chemotherapy but not for an

overnight stay.

[NICE's guideline on venous thromboembolism in over 16s, terms used in this guideline]

Equality and diversity considerations

The supporting information for this statement highlights that people should be given verbal and written information on using VTE prophylaxis correctly and the possible side effects. Information should be in a format that suits their needs and preferences. It should be accessible to people who do not speak or read English, and it should be culturally appropriate and age appropriate. For people with additional needs related to a disability, impairment or sensory loss, information should also be provided as set out in NHS England's Accessible Information Standard or the equivalent standards for the devolved nations.

Heparins are a type of pharmacological prophylaxis used to prevent VTE. They are of animal origin and this may be of concern to some people because of religious or ethical beliefs. The suitability, advantages and disadvantages of alternatives to heparin should be discussed with the person.

Quality statement 2: Venous thromboembolism risk assessment for people with lower limb immobilisation

Quality statement

People aged 16 and over who are discharged with lower limb immobilisation are assessed to identify their risk of venous thromboembolism (VTE). **[new 2021]**

Rationale

A significant number of people are discharged after hospital treatment for trauma or orthopaedic surgery with temporary lower limb immobilisation. These people may have an increased risk of VTE, but may not have their VTE risk assessed if they are treated in the emergency department or as outpatients. Ensuring that they have a risk assessment will enable them to have VTE prophylaxis if needed and reduce their risk of VTE and mortality. It is also an opportunity to explain the risks of VTE from immobilisation to them.

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 written clinical protocols to ensure that people aged 16 and over who are discharged with lower limb immobilisation are assessed to identify their risk of VTE.

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 service protocols.

Process

Proportion of people aged 16 and over who are discharged with lower limb immobilisation who are assessed to identify their risk of VTE.

Numerator – the number in the denominator who are assessed to identify their risk of VTE.

Denominator – the number of people aged 16 and over who are discharged with lower limb immobilisation.

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

Rates of thrombosis.

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.

What the quality statement means for different audiences

Service providers (secondary care services, such as orthopaedic departments, fracture clinics and emergency departments) ensure that written clinical protocols are in place so that people aged 16 and over who are discharged with lower limb immobilisation are assessed to identify their risk of VTE and to decide whether they need pharmacological VTE prophylaxis. They also have protocols on giving verbal and written information to people and their family members or carers about the signs and symptoms of VTE, how to reduce their risk of VTE and how to seek help if VTE is suspected, as well as the benefits and possible side effects of pharmacological VTE prophylaxis.

Healthcare professionals (such as doctors, allied health professionals, trauma teams and orthopaedic specialists) carry out a risk assessment for people aged 16 and over who are discharged with lower limb immobilisation to identify their risk of VTE and decide whether they need pharmacological VTE prophylaxis. They discuss the outcome of the assessment with the person and involve them in making decisions about pharmacological VTE prophylaxis if it is needed.

They also give verbal and written information to people and their family members or carers about the signs and symptoms of VTE, how to reduce their risk of VTE and how to seek help if VTE is suspected, as well as the benefits and possible side effects of pharmacological VTE prophylaxis.

Commissioners (clinical commissioning groups) ensure that services have written clinical protocols in place so that people aged 16 and over who are discharged with lower limb immobilisation are assessed to identify their risk of VTE and to decide whether they need pharmacological VTE prophylaxis. They also ensure they have protocols on giving verbal and written information to people and their family members or carers about the signs and symptoms of VTE, how to reduce their risk of VTE and how to seek help if VTE is suspected, as well as the benefits and possible side effects of pharmacological VTE prophylaxis.

People aged 16 and over who have a limb that is affected in a way that means they are unable to bear weight on it when they are sent home from hospital (for example, with a leg in a plaster cast or splint) have an assessment to check whether they need to take medicine temporarily (until they can move their leg normally again) to prevent a blood clot developing. They discuss the result of the assessment with a healthcare professional and make decisions about taking the medicine if it is needed. Their healthcare professional explains and gives them written information about the signs and symptoms of blood clots, how to reduce their risk of getting a blood clot and what to do if they think they have one, as well as the benefits and possible side effects of medicine to prevent blood clots.

Source guidance

Venous thromboembolism in over 16s: reducing the risk of hospital-acquired deep vein thrombosis or pulmonary embolism. NICE guideline NG89 (2018), recommendations 1.1.1 and 1.11.1

Definitions of terms used in this quality statement

Discharged with lower limb immobilisation

Discharged from the emergency department or from outpatient treatment with any clinical decision taken to temporarily manage the affected limb in a way that would prevent normal weight-bearing status or use of that limb, or both.

[Adapted from NICE's guideline on venous thromboembolism in over 16s, terms used in this guideline and expert opinion]

Equality and diversity considerations

Statement 2 highlights that people are given verbal and written information on the signs and symptoms of venous thromboembolism (VTE), how to reduce their risk of VTE and how to seek help if VTE is suspected. Information should be in a format that suits their needs and preferences. It should be accessible to people who do not speak or read English, and it should be culturally appropriate and age appropriate. For people with additional needs related to a disability, impairment or sensory loss, information should also be provided as set out in NHS England's Accessible Information Standard or the equivalent standards for the devolved nations.

Quality statement 3: Proximal leg vein ultrasound scan for a 'likely' deep vein thrombosis Wells score

Quality statement

People aged 18 and over with a deep vein thrombosis (DVT) Wells score of 2 points or more have a proximal leg vein ultrasound scan within 4 hours of it being requested. **[2013, updated 2021]**

Rationale

People aged 18 and over with a suspected DVT need to have a proximal leg vein ultrasound scan quickly to diagnose or rule out a DVT so that treatment can be started promptly if needed. The scan should be done within 4 hours of the request to avoid unnecessary interim anticoagulation treatment and, if DVT is ruled out, alternative diagnoses can be investigated promptly.

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 the availability of staff to perform proximal leg vein ultrasound scans for people aged 18 and over with a DVT Wells score of 2 points or more within 4 hours of it being requested.

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 staff rotas.

Process

Proportion of people aged 18 and over with a DVT Wells score of 2 points or more who have a proximal leg vein ultrasound scan within 4 hours of it being requested.

Numerator – the number in the denominator who have a proximal leg vein ultrasound scan within 4 hours of it being requested.

Denominator – the number of people aged 18 and over with a DVT Wells score of 2 points or more.

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

Prescribing rates of interim therapeutic anticoagulation to prevent DVT.

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 prescribing systems.

What the quality statement means for different audiences

Service providers (such as secondary care services) ensure that ultrasound scanning equipment and staff are available to perform proximal leg vein ultrasound scans for people aged 18 and over with a DVT Wells score of 2 points or more within 4 hours of the scan being requested. They ensure that written clinical protocols are in place so that, if it is not possible to have the scan result within 4 hours, people are offered a D-dimer test, then interim therapeutic anticoagulation until the scan results are obtained (within 24 hours) and treatment is reviewed.

Healthcare professionals (such as GPs, specialists and nurses) are aware of referral pathways for proximal leg vein ultrasound scans, and refer people aged 18 and over with a DVT Wells score of 2 points or more to have this imaging. If it is not possible to obtain the scan result within 4 hours, they offer a D-dimer test, then interim therapeutic anticoagulation and an ultrasound scan within 24 hours.

Commissioners (such as clinical commissioning groups) ensure that services have referral pathways and written clinical protocols in place so that people aged 18 and over with a DVT Wells score of 2 points or more can have a proximal leg vein ultrasound scan within 4 hours of it being requested, or within 24 hours if this is not possible. They also ensure that services have the equipment and capacity to perform this imaging within this timeframe.

People aged 18 and over who have signs and symptoms of a deep vein thrombosis (blood clot) and are referred for an ultrasound scan have the scan within 4 hours of the referral being made. If this is not possible, they are given the scan within 24 hours, and offered a blood test to measure a protein called D-dimer, which can indicate whether there is a blood clot, and an anticoagulant (medicine to treat blood clots) to take while waiting for the scan.

Source guidance

Venous thromboembolic diseases: diagnosis, management and thrombophilia testing. NICE guideline NG158 (2020), recommendations 1.1.3 and 1.1.4

Definition of terms used in this quality statement

DVT Wells score of 2 points or more

A 'likely' DVT Wells score, which is a score that predicts the probability of DVT for people with suspected DVT, estimated using the Wells clinical prediction rule:

Two-level DVT Wells score

Clinical feature	**Points**
Active cancer (treatment ongoing, within 6 months, or palliative)	1
Paralysis, paresis or recent plaster immobilisation of the lower extremities	1
Recently bedridden for 3 days or more, or major surgery within 12 weeks requiring general or regional anaesthesia	1
Localised tenderness along the distribution of the deep venous system	1
Entire leg swollen	1
Calf swelling at least 3 cm larger than asymptomatic side	1
Pitting oedema confined to the symptomatic leg	1
Collateral superficial veins (non-varicose)	1
Previously documented DVT	1
An alternative diagnosis is at least as likely as DVT	-2
Clinical probability simplified score	**Points**

Clinical feature	Points
DVT likely	2 points or more
DVT unlikely	1 point or less

[NICE's guideline on venous thromboembolic diseases, recommendation 1.1.2]

Equality and diversity considerations

NICE's guideline on venous thromboembolic diseases covers people aged 18 and over because the evidence for the recommendations focused on this age group. This statement applies to people aged 18 and over, but clinical judgement should be used when treating people aged between 16 and 18 for suspected DVT.

Heparins are a type of anticoagulant used to prevent VTE. They are of animal origin and this may be of concern to some people because of religious or ethical beliefs. The suitability, advantages and disadvantages of alternatives to heparin should be discussed with the person.

Quality statement 4: Venous thromboembolism anticoagulation review

Quality statement

People aged 18 and over taking anticoagulation treatment after a venous thromboembolism (VTE) have a review at 3 months and then at least once a year if they continue to take it long term. **[2013, updated 2021]**

Rationale

The benefits of anticoagulation treatment for VTE prevention become less certain over time, and after 3 months treatment needs to be reviewed and a decision made about whether to continue or stop treatment. Reviewing long-term anticoagulation treatment for people who decide to continue it beyond 3 months ensures that treatment is guided by the person's changing balance of benefits and risks, and changes in their preferences over time. At a review, the information, advice and support provided to people when they started having anticoagulation treatment should be reviewed and updated.

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 systems to identify and invite people aged 18 and over, taking anticoagulation treatment after a VTE for a review at 3 months.

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 service specifications.

b) Evidence of local systems to identify and invite people aged 18 and over taking long-term anticoagulation treatment after a VTE for a review at least once a year.

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 service specifications.

Process

a) Proportion of people aged 18 and over taking anticoagulation treatment for 3 months after a VTE who have a review.

Numerator – the number in the denominator who have a review at 3 months.

Denominator – the number of people aged 18 and over taking anticoagulation treatment after a VTE.

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.

b) Proportion of people aged 18 and over taking long-term anticoagulation treatment for secondary prevention of VTE who have a review at least once a year.

Numerator – the number in the denominator who had a review in the previous year.

Denominator – the number of people aged 18 and over taking long-term anticoagulation treatment for secondary prevention of VTE.

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.

What the quality statement means for different audiences

Service providers (such as GP practices and secondary care services) ensure that local systems are in place to identify and invite people aged 18 and over taking anticoagulation treatment after a VTE for a review at 3 months and then at least once a year. They also ensure that staff have the time to carry out the reviews and that they review and update the information, advice and support given to people when they started having anticoagulation treatment.

Healthcare professionals (such as GPs, specialists and nurses) carry out a review for people aged 18 and over taking anticoagulation treatment after a VTE after 3 months of treatment to discuss the benefits and risks of continuing, stopping or changing the anticoagulant. They give people information about when their anticoagulation will next be reviewed. They also carry out a review for people taking long-term anticoagulation treatment for secondary prevention of VTE at least once a year to review general health, risk of VTE recurrence, bleeding risk, adherence, side effects and treatment preferences. They make sure that they review and update the information, advice and support given to people when they started having anticoagulation treatment.

Commissioners (such as clinical commissioning groups and NHS England) ensure that services have local systems in place to identify and invite for review people aged 18 and over taking anticoagulation treatment after a VTE at 3 months after starting treatment and adults taking long-term anticoagulation treatment for secondary prevention of VTE at least once a year. They also ensure that services have the capacity to carry out the reviews and to review and update the information, advice and support given to people when they started having anticoagulation treatment.

People aged 18 and over who have had a blood clot and are taking an anticoagulant (medicine to prevent another blood clot) have a review at 3 months to discuss whether to continue or stop taking the anticoagulant, or change to a different anticoagulant. If they continue the anticoagulant, they have a review at least once a year. The information, advice and support they were given when they started having anticoagulation treatment is reviewed and updated, and they are also given information about when their treatment reviews will be scheduled.

Source guidance

Venous thromboembolic diseases: diagnosis, management and thrombophilia testing. NICE guideline NG158 (2020), recommendations 1.4.1 and 1.4.12

Definitions of terms used in this quality statement

Review at 3 months

A review after 3 months of anticoagulation treatment to assess and discuss the benefits and risks of continuing, stopping or changing the anticoagulant with the person having treatment, and to review and update the information, advice and support given when they started having anticoagulation treatment. [Adapted from NICE's guideline on venous thromboembolic diseases, recommendation 1.4.1 and expert opinion].

Review at least once a year

A review of general health, risk of VTE recurrence, bleeding risk and treatment preferences and to review and update the information, advice and support given when they started treatment for people taking long-term anticoagulation treatment.

[Adapted from NICE's guideline on venous thromboembolic diseases, recommendation 1.4.12]

Equality and diversity considerations

NICE's guideline on venous thromboembolic diseases covers people aged 18 and over because the evidence for the recommendations focused on this age group. This statement applies to people aged 18 and over, but clinical judgement should be used when treating people aged under 18 taking anticoagulation treatment after a VTE.

Information given to people should be in a format that suits their needs and preferences. The reviews should be accessible to people who do not speak or read English, and it should be culturally appropriate and age appropriate. For people with additional needs related to a disability, impairment or sensory loss, information should also be provided as set out in NHS England's Accessible Information Standard or the equivalent standards for the devolved nations.

Heparins are a type of anticoagulant used to treat VTE. They are of animal origin and this may be of concern to some people because of religious or ethical beliefs. The suitability, advantages and disadvantages of alternatives to heparin should be discussed with the person.

Quality statement 5: Follow-up for outpatients with low-risk pulmonary embolism

Quality statement

People aged 18 and over having outpatient treatment for suspected or confirmed low-risk pulmonary embolism (PE) have an agreed plan for monitoring and follow-up. **[new 2021]**

Rationale

Having clear arrangements for monitoring and follow-up for outpatients ensures that they receive the same quality of care from secondary care services as inpatients. Patients should have a written plan that makes them aware of signs to look out for and how and when to get help when needed. This will help to ensure that people having outpatient treatment for suspected or confirmed PE act in a timely manner before things worsen. Specialist services with expertise in thrombosis may not be available at all times, so it is important that the plan also includes information about who they can contact if they need advice outside normal service hours.

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 aged 18 and over having outpatient treatment for suspected or confirmed low-risk PE have an agreed plan for monitoring and follow-up.

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 service specifications or local protocols.

b) Evidence that information is available for people aged 18 and over having outpatient treatment for suspected or confirmed low-risk PE on symptoms and signs to look out for, and contact

information for healthcare professionals they can discuss concerns with.

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 information leaflets.

Process

Proportion of people aged 18 and over having outpatient treatment for suspected or confirmed low-risk PE who have an agreed plan for monitoring and follow-up.

Numerator – the number in the denominator who have an agreed plan for monitoring and follow-up.

Denominator – the number of people aged 18 and over having outpatient treatment for suspected or confirmed low-risk PE.

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

Rates of emergency admissions to hospital for people aged 18 and over having outpatient treatment for low-risk PE.

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 case records.

What the quality statement means for different audiences

Service providers (such as secondary care services) ensure that healthcare professionals have the time and resources to discuss and agree a plan for monitoring and follow-up with people having outpatient treatment for suspected or confirmed low-risk PE.

Healthcare professionals (such as specialists, specialist nurses and allied health professionals)

discuss and agree a plan for monitoring and follow-up with people having outpatient treatment for suspected or confirmed low-risk PE. They provide them with written information on symptoms and signs to look out for, direct contact details of a healthcare professional or team with expertise in thrombosis to discuss concerns with, and information about out-of-hours services they can contact when their secondary care healthcare team is not available. They should provide adequate information to enable people to make an informed decision about outpatient management.

Commissioners (such as clinical commissioning groups) ensure that services have the capacity and resources to discuss and agree a plan for monitoring and follow-up with people having outpatient treatment for suspected or confirmed low-risk PE.

People who are having outpatient treatment for a pulmonary embolism are given written information on signs and symptoms they should look out for and who to contact if they need help or advice, including out-of-hours services.

Source guidance

Venous thromboembolic diseases: diagnosis, management and thrombophilia testing. NICE guideline NG158 (2020), recommendation 1.2.4

Definition of terms used in this quality statement

Agreed plan for follow-up

A plan for follow-up that is agreed with the person having outpatient treatment for suspected or confirmed low-risk PE. They should be given:

- written information on symptoms and signs to look out for, including the potential complications of thrombosis and of treatment
- direct contact details of a healthcare professional or team with expertise in thrombosis who can discuss any new symptoms or signs, or other concerns
- information about out-of-hours services they can contact when their healthcare team is not available.

[NICE's guideline on venous thromboembolic diseases, recommendation 1.2.4]

Equality and diversity considerations

NICE's guideline on venous thromboembolic diseases covers people aged 18 and over as the evidence for the recommendations focused on this age group. This statement applies to people aged 18 and over, but clinical judgement should be used when treating people aged under 18 having outpatient treatment for suspected or confirmed low-risk PE.

Statement 5 highlights that people are given written information on symptoms and signs to look out for, including the potential complications of thrombosis and of treatment. Information should be in a format that suits their needs and preferences. It should be accessible to people who do not speak or read English, and it should be culturally appropriate and age appropriate. For people with additional needs related to a disability, impairment or sensory loss, information should also be provided as set out in NHS England's Accessible Information Standard or the equivalent standards for the devolved nations.

Update information

August 2021: This quality standard updates and replaces the quality standards on venous thromboembolism in adults: reducing the risk in hospital (published June 2010), and venous thromboembolism in adults: diagnosis and management (published March 2013). The topic was identified for update following the annual review of quality standards. The review identified:

- changes in the priority areas for improvement
- new guidance on venous thromboembolic diseases: diagnosis, management and thrombophilia testing (NG158)
- that the quality standards on venous thromboembolism in adults: reducing the risk in hospital (QS3) and venous thromboembolism in adults: diagnosis and management (QS29) should be combined.

Statements are marked as:

- **[new 2021]** if the statement covers a new area for quality improvement
- **[2010 or 2013, updated 2021]** if the statement covers an area for quality improvement included in the 2010 or 2013 quality standard and has been updated.

The statement numbered 5 in the 2010 version has been updated and is included in the updated quality standard, marked as **[2010, updated 2021]**.

Statements numbered 2 and 8 in the 2013 version have been updated and are included in the updated quality standard, marked as **[2013, updated 2021]**.

The 2010 quality standard on venous thromboembolism in adults: reducing the risk in hospital and the 2013 quality standard for venous thromboembolism in adults: diagnosis and management are available as PDFs.

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 standard advisory committees for details of standing committee 3 members who advised on this quality standard. Information about the topic experts invited to join the standing members is available from the webpage for this quality standard.

This quality standard has been included in the NICE Pathway on venous thromboembolism, which brings together everything we have said on a topic in an interactive flowchart.

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 products for the source

guidance to help estimate local costs:

- resource impact statement for NICE's guideline on venous thromboembolism in over 16s
- resource impact template and report for NICE's guideline on venous thromboembolic diseases.

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)
- Thrombosis UK
- Clinical Leaders of Thrombosis (CLOT)
- British Geriatrics Society
- British Thoracic Society