NICE National Institute for Health and Care Excellence

NICE quality standard

Transient loss of consciousness ('blackouts') in over 16s

Quality standard

Published: 2 October 2014

www.nice.org.uk/guidance/qs71

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This standard is based on CG109.

This standard should be read in conjunction with QS2, QS15, QS53, QS68, QS86 and QS74.

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Quality statement 1: Initial assessment – recording the event, clinical history and physical examination

Quality statement

People who have had a suspected transient loss of consciousness have an initial assessment to record details of the event, clinical history and physical examination.

Rationale

If a suspected transient loss of consciousness has occurred, it is important to collect information as soon as possible from the person and especially from any witnesses. This is critical in confirming whether or not a transient loss of consciousness has occurred, and in establishing relevant features of the event, so that patients can be directed along the correct care pathway.

Inadequate assessment may result in inappropriate care that may be costly, ineffective and possibly harmful. It is also important to record current medications, to identify any medication that may have caused or contributed to transient loss of consciousness, and identify any 'red flag' signs or symptoms (see quality statement 3).

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 who have had a suspected transient loss of consciousness have an initial assessment to record details of the event, clinical history and physical examination.

Data source: Data can be collected from information recorded locally by healthcare professionals and provider organisations, for example, from service protocols.

Process

(a) Proportion of people with a suspected transient loss of consciousness who have the details of the event recorded.

Numerator – the number in the denominator who have the details of the event recorded.

Denominator – the number of people with a suspected transient loss of consciousness.

Data source: Data can be collected from information recorded locally by healthcare professionals and provider organisations, for example, from patient records.

(b) Proportion of people with a suspected transient loss of consciousness who have the details of the clinical history and physical examination assessment recorded.

Numerator – the number in the denominator who have the details of the clinical history and physical examination assessment recorded.

Denominator – the number of people with a suspected transient loss of consciousness.

Data source: 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 (first-line staff such as paramedic and emergency service staff, GPs, and out-of-hours staff) ensure that people who have had a suspected transient loss of consciousness have an initial assessment, in which the details of the event are recorded, a clinical history is taken and a physical examination is carried out.

Healthcare professionals ensure that people who have had a suspected transient loss of consciousness have an initial assessment, in which the details of the event are recorded, a clinical history is taken and a physical examination is carried out.

Commissioners (NHS England area teams, integrated care systems and clinical commissioning groups) ensure that they specify in contracts with ambulance and emergency services that people who have had a suspected transient loss of consciousness have an initial assessment, in which the details of the event are recorded, a clinical history is taken and a physical examination is carried out.

People who have had a blackout have an assessment to find out more about the blackout and why it happened. This will involve recording details of the blackout (by witnesses) and any previous blackouts, medical history, family history of heart disease, and any medicines being taken, checking vital signs such as pulse rate, blood pressure, breathing rate and temperature, and also listening to the chest.

Source guidance

Transient loss of consciousness in over 16s. NICE guideline CG109 (2010, updated 2014), recommendations 1.1.1.2 (key priority for implementation) and 1.1.2.1

Definitions of terms used in this quality statement

Detailed account of the event

An account of the event should be taken from the person and any witnesses who are present at the initial consultation at the point of contact. Attempts should be made to contact any further witnesses (for example, by telephone).

The following details should be recorded:

- circumstances of the event
- person's posture immediately before loss of consciousness
- prodromal symptoms (such as sweating or feeling warm or hot)
- physical appearance (for example, whether eyes were open or shut, and the colour of the person's complexion during the event)
- presence or absence of movement during the event (for example, limb-jerking and its duration)

- any tongue-biting (record whether the side or the tip of the tongue was bitten)
- injury occurring during the event (record site and severity)
- duration of the event (onset to regaining consciousness)
- presence or absence of confusion during the recovery period
- weakness down 1 side during the recovery period.

[Adapted from NICE's guideline on transient loss of consciousness in over 16s, recommendation 1.1.1.2]

Detailed clinical history and physical examination

Detailed clinical history and physical examination should involve recording the following:

- details of any previous transient loss of consciousness events, including number and frequency
- the person's medical history and any family history of cardiac disease (for example, personal history of heart disease and family history of sudden cardiac death)
- current medication that may have contributed to transient loss of consciousness (for example, diuretics)
- vital signs (for example, pulse rate, respiratory rate and temperature) – repeat if clinically indicated
- lying and standing blood pressure if clinically appropriate
- other cardiovascular and neurological signs.

[Adapted from NICE's guideline on transient loss of consciousness in over 16s, recommendation 1.1.2.1]

Quality statement 2: Initial assessment – 12-lead electrocardiogram (ECG)

Quality statement

People who have had a transient loss of consciousness have a 12-lead electrocardiogram (ECG) during the initial assessment.

Rationale

A 12-lead ECG is an important initial diagnostic test for identifying the likely cause of the transient loss of consciousness in some people, and especially in predicting adverse events (for example, ECG abnormalities that are 'red flag' signs or symptoms may suggest structural heart disease or potential for arrhythmic syncope). A 12-lead ECG should be used by appropriately trained healthcare professionals (such as paramedics and GPs) to identify people who may be at high risk of a serious event, and who should therefore be referred for urgent specialist cardiovascular assessment.

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 who have had a transient loss of consciousness have a 12-lead ECG during initial assessment.

Data source: Data can be collected from information recorded locally by healthcare professionals and provider organisations, for example, from service protocols.

Process

Proportion of people who have had a transient loss of consciousness who have a 12-lead ECG during initial assessment.

Numerator – the number in the denominator who have a 12-lead ECG during initial assessment.

Denominator – the number of people who have had a transient loss of consciousness.

Data source: 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 (first-line staff such as paramedic and emergency service staff, GPs, and out-of-hours staff) ensure that people who have had a suspected transient loss of consciousness have a 12-lead ECG recorded during the initial assessment. Service providers ensure that systems are in place to offer training to healthcare professionals according to local need in relation to competent interpretation of 12-lead ECG recordings.

Healthcare professionals (such as paramedics and GPs) ensure that people who have had a suspected transient loss of consciousness have a 12-lead ECG recorded during the initial assessment and that the results are interpreted competently.

Commissioners (NHS England area teams, integrated care systems and clinical commissioning groups) ensure that all service providers have appropriate capacity in place to provide access to 12-lead ECGs.

People who have a blackout have an ECG (short for electrocardiogram) test during their initial assessment. This records electrical signals from the heart and may help to identify problems that can cause blackouts.

Source guidance

Transient loss of consciousness in over 16s. NICE guideline CG109 (2010, updated 2014),

recommendations 1.1.2.2, 1.1.3.1 (key priorities for implementation), and 1.1.2.3

Definitions of terms used in this quality statement

12-lead ECG

A test that records the heart's electrical signals, obtained by attaching electrodes in 10 standard positions on the limbs and the surface of the chest. The 12-lead ECG recording should be reported automatically, or if automated analysis is not available, by a healthcare professional competent in ECG interpretation and trained to identify specific potentially life-threatening abnormalities. This must be interpreted in the full context of the detailed history and clinical signs.

When care is transferred, copies of the ECG recording and the patient report form should be given to the receiving clinician and to the person who has had the transient loss of consciousness. [Adapted from NICE's guideline on transient loss of consciousness in over 16s, full guideline glossary and abbreviations and expert opinion]

Quality statement 3: Urgent specialist cardiovascular assessment within 24 hours of the initial assessment

Quality statement

People who have had a transient loss of consciousness and 1 or more 'red flag' signs or symptoms identified have an urgent specialist cardiovascular assessment within 24 hours of the initial assessment.

Rationale

If people have had a transient loss of consciousness and 1 or more 'red flag' signs or symptoms have been identified, an urgent specialist cardiovascular assessment is needed within 24 hours of the initial assessment so that they can be assessed promptly for further investigation and 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 who have had a transient loss of consciousness and 1 or more 'red flag' signs or symptoms identified have an urgent specialist cardiovascular assessment within 24 hours of the initial assessment.

Data source: Data can be collected from information recorded locally by healthcare professionals and provider organisations, for example, from service protocols.

Process

Proportion of people who have had transient loss of consciousness and 1 or more 'red flag' signs or symptoms identified who have an urgent specialist cardiovascular assessment within 24 hours of the initial assessment.

Numerator – the number in the denominator who have an urgent specialist cardiovascular assessment within 24 hours.

Denominator – the number of people who have had transient loss of consciousness and 1 or more 'red flag' signs or symptoms identified at initial assessment.

Data source: 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 (first-line staff such as paramedic and emergency service staff, GPs, and out-of-hours staff) ensure that people who have had a transient loss of consciousness and 1 or more 'red flag' signs or symptoms identified have an urgent specialist cardiovascular assessment within 24 hours of the initial assessment.

Healthcare professionals ensure that people who have had a transient loss of consciousness and 1 or more 'red flag' signs or symptoms identified have an urgent specialist cardiovascular assessment within 24 hours of the initial assessment.

Commissioners (NHS England area teams, integrated care systems and clinical commissioning groups) ensure that all service providers have appropriate capacity in place for people who have had a transient loss of consciousness and 1 or more 'red flag' signs or symptoms identified to have an urgent specialist cardiovascular assessment within 24 hours of the initial assessment.

People who have had a blackout and have 1 or more 'red flag' signs or have an urgent specialist assessment within 24 hours of the initial assessment. 'Red flag' signs or symptoms indicate a high risk of a serious event such as having another blackout or a heart problem.

Source guidance

Transient loss of consciousness in over 16s. NICE guideline CG109 (2010, updated 2014), recommendation 1.1.4.2 (key priority for implementation)

Definitions of terms used in this quality statement

'Red flag' signs or symptoms

'Red flag' signs or symptoms indicate that the person may be at high risk of a serious adverse event and should have an urgent specialist assessment within 24 hours. The signs or symptoms include:

- an electrocardiogram (ECG) abnormality
- heart failure (history or physical signs)
- transient loss of consciousness during exertion
- family history of sudden cardiac death in people aged younger than 40 years and/or an inherited cardiac condition
- new or unexplained breathlessness
- a heart murmur.

[Adapted from NICE's guideline on transient loss of consciousness in over 16s, recommendation 1.1.4.2, and expert opinion]

Urgent specialist cardiovascular assessment

People at high risk of a serious cardiovascular or cerebrovascular adverse event need urgent investigation within 24 hours of the initial assessment.

Cardiovascular assessment is carried out by a specialist team that includes healthcare professionals who are experts in cardiovascular diseases and disorders. In some hospitals, this may be carried out in a clinic specialising in assessing people with a transient loss of consciousness. [NICE's guideline on transient loss of consciousness in over 16s, full guideline, section 6.9 and expert opinion]

Quality statement 4: Initial assessment – unnecessary use of electroencephalogram (EEG)

Quality statement

People who have had a transient loss of consciousness are not routinely offered an electroencephalogram (EEG) to investigate the event.

Rationale

EEGs are usually carried out as part of initial investigations for epilepsy and are not routinely offered to investigate transient losses of consciousness. Great caution is needed in performing and interpreting an EEG if the clinical history offers limited or no support for a diagnosis of epilepsy. This is because a 'false positive' result may lead to misdiagnosis and inappropriate treatment. It is important that EEGs are not routinely requested inappropriately in the generalist setting as a diagnostic test to investigate unexplained transient loss of consciousness.

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 who have had a transient loss of consciousness are not routinely offered an EEG to investigate the event.

Data source: Data can be collected from information recorded locally by healthcare professionals and provider organisations, for example, from service protocols.

Process

Proportion of people who have had a transient loss of consciousness who have an EEG recorded to investigate the event.

Numerator – the number in the denominator who have an EEG recorded to investigate the event.

Denominator – the number of people who have had a transient loss of consciousness.

Data source: 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 (acute, primary and secondary care) ensure that people who have had a transient loss of consciousness are not routinely offered an EEG to investigate the event.

Healthcare professionals ensure that they do not routinely offer an EEG to people who have had a transient loss of consciousness to investigate the event.

Commissioners (NHS England area teams, integrated care systems and clinical commissioning groups) ensure that they monitor and audit any routine EEG referrals to investigate a transient loss of consciousness event. They should also work with healthcare professionals to ensure that provider training and education is delivered to ensure that EEGs are not offered routinely to people who have had a transient loss of consciousness to investigate the event.

People who have had a blackout should not normally be offered an EEG (short for electroencephalogram) to investigate the cause of their blackout. This is a test that records the brain's electrical activity and is usually offered when epilepsy is suspected.

Source guidance

Transient loss of consciousness in over 16s. NICE guideline CG109 (2010, updated 2014), recommendations 1.1.2.4 and 1.2.2.1

Quality statement 5: Driving advice

Quality statement

People who have had a transient loss of consciousness are advised not to drive while they are awaiting specialist assessment.

Rationale

People who have experienced a transient loss of consciousness may be at risk of injuring themselves or others if they lose consciousness again. While they are awaiting specialist assessment, the risk of recurrence is uncertain and so driving should be avoided (see the Driver and Vehicle Licensing Agency's [DVLA] guidance on assessing fitness to drive).

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 who have had a transient loss of consciousness are advised not to drive while they are awaiting specialist assessment.

Data source: Data can be collected from information recorded locally by healthcare professionals and provider organisations, for example, from service protocols.

Process

Proportion of people who have had transient loss of consciousness who are advised not to drive while awaiting specialist assessment.

Numerator – the number in the denominator who are advised not to drive.

Denominator – the number of people who have had transient loss of consciousness and are awaiting specialist assessment.

Data source: 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 (acute, primary and secondary care) ensure that advice is provided to people who have had a transient loss of consciousness to not to drive while they are awaiting specialist assessment.

Healthcare professionals advise people who have had a transient loss of consciousness to not to drive while they are awaiting specialist assessment.

Commissioners (NHS England area teams, integrated care systems and clinical commissioning groups) work with healthcare professionals to ensure that education (including continuous training programmes) is delivered to advise people who have had a transient loss of consciousness are advised to not to drive while they are awaiting specialist assessment.

People who have had a blackout and are waiting to have a specialist assessment are advised not to drive in case they have a blackout while driving.

Source guidance

Transient loss of consciousness in over 16s. NICE guideline CG109 (2010, updated 2014), recommendation 1.5.2.2

Quality statement 6: Specialist cardiovascular investigation – ambulatory electrocardiogram (ECG)

Quality statement

People with a suspected cardiac arrhythmic cause of syncope are offered an ambulatory electrocardiogram (ECG) as a first-line specialist cardiovascular investigation.

Rationale

In some people, transient loss of consciousness is caused by a transient episode of abnormal heart rhythm (cardiac arrhythmia) that has resolved before recovery or initial assessment. Ambulatory ECGs allow prolonged monitoring to try to detect intermittent episodes of cardiac arrhythmia (and also of abnormal heart rate behaviour). The monitoring takes place over at least 24 hours, and often much longer.

Recording heart rate and rhythm behaviour at the time of an episode of transient loss of consciousness allows confident diagnosis. Competent expert interpretation is also needed to assess the relevance of abnormal heart rate and rhythm behaviour recorded at a time when the person has no symptoms.

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 suspected cardiac arrhythmic cause of syncope are offered an ambulatory ECG as a first-line specialist investigation, with the type of ambulatory ECG chosen according to the person's history and frequency

of transient loss of consciousness.

Data source: Data can be collected from information recorded locally by healthcare professionals and provider organisations, for example, from service protocols.

Process

Proportion of people with a suspected cardiac arrhythmic cause of syncope who are offered an ambulatory ECG as a first-line specialist investigation.

Numerator – the number in the denominator who receive an ambulatory ECG as a first-line specialist investigation, with the type of ambulatory ECG chosen according to the person's history and frequency of transient loss of consciousness.

Denominator – the number of people with a suspected cardiac arrhythmic cause of syncope.

Data source: 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 (acute, primary and secondary care) ensure that systems are in place to offer ambulatory ECGs as a first-line specialist cardiovascular investigation for people with a suspected cardiac arrhythmic cause of syncope.

Healthcare professionals ensure that they offer an ambulatory ECG as a first-line specialist cardiovascular investigation for people with a suspected cardiac arrhythmic cause of syncope.

Commissioners (NHS England area teams, integrated care systems and clinical commissioning groups) ensure that they enhance training and education on offering an ambulatory ECG as a first-line specialist cardiovascular investigation for people with a suspected cardiac arrhythmic cause of syncope. They should also request evidence of practice from providers that ambulatory ECGs are being offered as a first-line specialist cardiovascular investigation.

People whose blackout is suspected to be caused by a sudden change in heart rate or rhythm are offered an ambulatory ECG. This is a test that uses a small portable device to monitor and record the heart's activity over a period of time (usually more than 24 hours).

Source guidance

Transient loss of consciousness in over 16s. NICE guideline CG109 (2010, updated 2014), recommendation 1.3.2.4 (key priority for implementation)

Definitions of terms used in this quality statement

Ambulatory ECG

A test that monitors and/or records the electrical activity of the heart over a prolonged period of at least 24 hours, while the person is walking about (ambulatory) and doing other normal activities, including resting or sleeping. [Expert opinion]

Ambulatory ECG monitors and/or recorders

Holter monitor/recorder

A small, portable recorder that can take continuous ECG readings from electrodes on the skin, usually over a 24- to 72-hour period. [NICE's guideline on transient loss of consciousness in over 16s, glossary and expert opinion]

External event recorder

A small, portable recorder that can take ECG readings from electrodes on the skin; usually worn for 1 to 4 weeks. It will usually be programmed to detect and store episodes of extreme heart rate behaviour and can be triggered remotely (by the person or someone close to them) to store the current or immediately recent ECG at the time of an event, such as a further episode of transient loss of consciousness. [NICE's guideline on transient loss of consciousness in over 16s, glossary and expert opinion]

Implantable event recorder (also known as an implantable or insertable loop recorder, or implantable cardiac monitor)

A small, implantable device that can monitor and store ECG recordings of the heart's rhythm. It can be programmed to detect and store episodes of extreme heart rate behaviour and can be triggered remotely (by the person or someone close to them) to store the current or immediately recent ECG at the time of an event such as a further episode of transient loss of consciousness. [NICE's guideline on transient loss of consciousness in over 16s, glossary and expert opinion]

Cardiac arrhythmia

An abnormality of the heart's rhythm. [Expert opinion]

Syncope

Transient loss of consciousness caused by transient reduction in blood flow to the brain. May be caused by many different factors, including vagal stimulation, vascular pooling in the legs, sudden change in environmental temperature or body position drug therapy, structural heart disease, cardiac arrhythmia, vertebro-basilar atheroma and emotional stress. [Expert opinion]

Update information

Minor changes since publication

April 2022: A source for the definition of syncope in statement 6 was removed and the data sources updated throughout.

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.

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.

ISBN: 978-1-4731-0784-7

Endorsing organisation

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

Supporting organisation

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.

- Society for Acute Medicine (SAM)