

Anaphylaxis

Quality standard

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This standard is based on CG134.

This standard should be read in conjunction with QS97, QS44, QS174 and QS25.

Quality statements

Statement 1 People who are prescribed an adrenaline auto-injector after emergency treatment for anaphylaxis are given training in how and when to use it before being discharged. **[2016]**

Statement 2 People who have received emergency treatment for anaphylaxis are referred to a specialist allergy service. **[2016, updated 2024]**

Statement 3 People who have a systemic reaction to wasp or bee stings are referred to a specialist allergy service to assess whether venom immunotherapy would be suitable. **[2016]**

Statement 4 People who have received treatment for anaphylaxis are retrained on the use of their adrenaline auto-injector each time it is represcribed. **[2016, updated 2024]**

In 2024 this quality standard was updated and statements prioritised in 2016 were updated (2016, updated 2024). For more information, see [update information](#).

The [previous version of the quality standard for anaphylaxis](#) is available as a pdf.

Quality statement 1: Initial education in adrenaline auto-injector use

Quality statement

People who are prescribed an adrenaline auto-injector after emergency treatment for anaphylaxis are given training in how and when to use it before being discharged. **[2016]**

Rationale

Adrenaline auto-injectors (AAIs) should be offered to people after emergency treatment for anaphylaxis, as an interim measure before they have a specialist allergy service appointment. It is important to use an AAI as soon as possible if an anaphylactic reaction is suspected. Ensuring that people know when and how to use their specific device, and encouraging them to get familiar with it by practising with a trainer AAI, will help ensure timely and correct use if they have another anaphylactic reaction.

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.

Process

Proportion of people prescribed an AAI after emergency treatment for anaphylaxis who are given training in how and when to use it before being discharged.

Numerator – the number in the denominator who are given training in how and when to use an AAI before being discharged.

Denominator – the number of people prescribed an AAI after emergency treatment for anaphylaxis.

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 (such as emergency departments, and paediatric and adult medical services) ensure that healthcare professionals can provide brand-specific training in how and when to use AAI for people who are prescribed one after emergency treatment for anaphylaxis. They also ensure that information on using AAI and lying down flat and raising their legs after using them is available to give to people. Information should include how to get a trainer auto-injector from the manufacturer to practise with.

Healthcare professionals (such as emergency department staff, and members of paediatric and adult medical services) provide brand-specific training for people prescribed an AAI after emergency treatment for anaphylaxis, before they are discharged. They demonstrate correct use and provide an opportunity for the person to practise using a training device. They also give people information about how and when to use it, including lying down flat and raising their legs after using it even if they are feeling better. They encourage the person to practise at home by getting a trainer auto-injector from the manufacturer and remind them that AAI expire and to check the date when they collect their prescription.

Commissioners ensure that services provide brand-specific training and information on how and when to use AAI for people who have been prescribed one after emergency treatment for anaphylaxis.

People who are prescribed an adrenaline auto-injector (AAI) because they have had emergency treatment for anaphylaxis (a severe, life-threatening allergic reaction) are shown how to use their specific brand of AAI before they go home from hospital. This includes practising using a training injector, being given information that explains how and when they should use it, and to ensure they lie down flat and raise their legs when they have used it, even if they are feeling better. They are also encouraged to get a trainer auto-injector from the manufacturer so they can practise at home.

Source guidance

Anaphylaxis: assessment and referral after emergency treatment. NICE guideline CG134 (2011, updated 2020), recommendation 1.1.11

Definitions of terms used in this quality statement

Training in when to use an adrenaline auto-injector

There are a number of possible signs of anaphylaxis. People should be informed that any 1 of the following signs or symptoms is enough to warrant immediate use of an AAI:

- Airway (A): swelling in the throat, tongue or upper airways (tightening of the throat, hoarse voice, difficulty swallowing).
- Breathing (B): sudden-onset wheezing, breathing difficulty, noisy breathing.
- Circulation (C): dizziness, feeling faint, sudden sleepiness, tiredness, confusion, pale clammy skin, loss of consciousness.

People should be informed that if they experience any of the above signs or symptoms, they should not delay in administering an AAI, even if they also have signs that they would normally associate with a milder reaction (such as an itchy throat or swelling of the lips). They should take notice of severe signs and symptoms, regardless of what else is happening. If in any doubt about severity, or if previous reactions have been severe, an AAI should be used.

If there is no improvement 5 minutes after the first injection, or if there is a deterioration after an initial improvement, the second AAI should be used while waiting for the ambulance. Other medicines such as antihistamines and inhalers can be given as necessary.

The Medicines and Healthcare products Regulatory Agency (MHRA) has produced a video for people with anaphylaxis explaining what they should do if they experience an episode of anaphylaxis. This link can be provided to people when they are being shown how and when to use an AAI. [Adapted from the MHRA and Commission on Human Medicines' Public Assessment Report of the Commission on Human Medicines' Adrenaline Auto-injector Expert Working Group: Recommendations to support the effective and safe use of

[adrenaline auto-injectors](#) and [MHRA's guidance on adrenaline auto-injectors](#)]

Training in how to use an adrenaline auto-injector

This includes:

- Ensuring the person knows they should carry 2 AAI with them at all times.
- Providing a brand-specific demonstration of using an AAI and practise using a training device.
- Encouraging the person to get familiar with the device by getting a trainer AAI from the manufacturer to practise with.
- Providing advice on lying down after using the AAI (or propping themselves up slightly if they are struggling to breathe). It is imperative to avoid any sudden change in posture, and above all, the person must not stand up, or sit in a chair, even if they are feeling better because of the risk of cardiac arrest.

[Adapted from [NICE's guideline on anaphylaxis](#), recommendation 1.1.11, and the [MHRA and Commission on Human Medicines' Public Assessment Report of the Commission on Human Medicines' Adrenaline Auto-injector Expert Working Group: Recommendations to support the effective and safe use of adrenaline auto-injectors](#) (2021)]

Key information for people who have had an anaphylactic episode

What to do in an emergency:

- Use your AAI immediately if you have any signs of anaphylaxis. If in doubt, use. Do not delay.
- Dial 999 – say anaphylaxis ("ana-fill-axis") – straight after using your auto-injector.
- Lie down and raise your legs.
- Sit up if you are struggling to breathe, but do not change position suddenly.
- Lie down again as soon as you can.
- Stay lying down even if you are feeling better.

- You must not stand up even if someone encourages you to.
- Use your second AAI if you have not improved after 5 minutes.

Be prepared:

- Carry 2 AAI with you at all times.
- You must use your AAI as soon as you notice any signs of anaphylaxis.
- Make sure you know beforehand what the signs are so you can act swiftly.
- Make sure you know how to use your AAI before you need to. Get familiar with it. Get a trainer AAI from the manufacturer. Practise. If you change brand, get familiar with the new one. Each one is used differently.

[Adapted from the [MHRA and Commission on Human Medicines' Public Assessment Report of the Commission on Human Medicines' Adrenaline Auto-injector Expert Working Group: Recommendations to support the effective and safe use of adrenaline auto-injectors](#) (2021)]

Equality and diversity considerations

People should be provided with information about using AAI that they can easily read and understand themselves, or with support, so they can communicate effectively with health and social care services. 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. People should have access to an interpreter or advocate if needed.

For people with additional needs related to a disability, impairment or sensory loss, information should be provided as set out in [NHS England's Accessible Information Standard](#) or the equivalent standards for the devolved nations.

Quality statement 2: Referral to specialist allergy services after emergency treatment

Quality statement

People who have received emergency treatment for anaphylaxis are referred to a specialist allergy service. **[2016, updated 2024]**

Rationale

Specialist allergy services can identify the cause of an anaphylactic reaction. Referral to these services after emergency treatment for anaphylaxis will ensure that people receive the correct advice and treatment. If people are not referred to a specialist allergy service, their safety might be compromised and they may receive inappropriate management, have an increased risk of recurrent anaphylactic reactions and feel anxious about possible recurrence.

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.

Process

Proportion of cases of emergency treatment for anaphylaxis that are followed by referral to a specialist allergy service.

Numerator – the number in the denominator that are followed by referral to a specialist allergy service.

Denominator – the number of cases of emergency treatment for anaphylaxis.

Data source: Data can be collected from information recorded locally by healthcare professionals and provider organisations, for example, from patient records. General practice patient records may be a more reliable source of data as coding of anaphylaxis is limited in emergency care data sets.

What the quality statement means for different audiences

Service providers (such as general practice, emergency departments and paediatric services) ensure that people who have had emergency treatment for anaphylaxis are referred to a specialist allergy service.

Healthcare professionals (such as GPs, emergency department staff, and members of paediatric and adult medical teams) refer people who have had emergency treatment for anaphylaxis to a specialist allergy service. The referral can be made by the person's GP, staff in the emergency department or by other members of secondary care medical teams, after initial treatment in an emergency department or by hospital staff.

Commissioners ensure that local specialist allergy services are available and agree pathways for referral to specialist allergy services for people who have had emergency treatment for anaphylaxis.

People who have had emergency treatment for anaphylaxis (a severe, life-threatening allergic reaction) are offered an appointment at a specialist allergy service. This is to find out the cause of the reaction and to get advice on what to do in the future.

Source guidance

Anaphylaxis: assessment and referral after emergency treatment. NICE guideline CG134 (2011, updated 2020), recommendation 1.1.9

Definitions of terms used in this quality statement

Specialist allergy service

A service consisting of healthcare professionals with the skills and competencies needed

to accurately investigate, diagnose, monitor and provide ongoing management of, and patient education about, anaphylaxis. The service should be age appropriate if possible. [Adapted from [NICE's guideline on anaphylaxis](#), recommendation 1.1.9]

Details of local allergy services are available from the [British Society for Allergy and Clinical Immunology \(BSACI\) 'find a clinic' search](#), including information on services with expertise, particularly in food, drug or venom allergies, or from the [NHS website allergy service finder](#). [Expert opinion]

Equality and diversity considerations

When referring people to a specialist allergy service, any potential difficulties in access, such as travelling distance, disability or financial barriers, should be taken into account.

Quality statement 3: Specialist assessment for venom immunotherapy

Quality statement

People who have a systemic reaction to wasp or bee stings are referred to a specialist allergy service to assess whether venom immunotherapy would be suitable. **[2016]**

Rationale

Venom allergy from bees and wasps accounts for approximately a quarter of adult cases of anaphylaxis of known cause. Venom immunotherapy can reduce the risk and severity of systemic reactions. Ensuring that people who could benefit from venom immunotherapy are assessed for this treatment will help improve uptake and reduce the incidence of venom-induced anaphylaxis.

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.

Process

Proportion of people who have a systemic reaction to a wasp or bee sting who are referred to a specialist allergy service to assess whether venom immunotherapy would be suitable.

Numerator – the number in the denominator who are referred to a specialist allergy service to assess whether venom immunotherapy would be suitable.

Denominator – the number of people presenting with a systemic reaction to a wasp or bee sting.

Data source: Data can be collected from information recorded locally by healthcare

professionals and provider organisations, for example, from patient records.

Outcome

a) Prescriptions of venom immunotherapy.

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

b) Incidence of venom-induced anaphylaxis.

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 (such as primary care providers, emergency departments and specialist allergy services) ensure that there are agreed local pathways in place for people who have a systemic reaction to a wasp or bee sting to be referred to a specialist allergy service to assess for possible venom immunotherapy. Venom immunotherapy should be offered when suitable as part of the local pathway.

Healthcare professionals (such as GPs and emergency department staff) refer people who have a systemic reaction to a wasp or bee sting to a specialist allergy service for assessment. Healthcare professionals at specialist allergy services assess for and offer venom immunotherapy if it is suitable.

Commissioners ensure that specialist allergy services are in place that can offer venom immunotherapy, and that there are agreed local pathways for people who have a systemic reaction to a wasp or bee sting to be referred to these services for assessment and treatment.

People who have a severe reaction to a wasp or bee sting are offered an appointment at a specialist allergy service to check if they would benefit from treatment (called venom immunotherapy) that can reduce the risk of future reactions to wasp or bee stings.

Source guidance

Diagnosis and management of Hymenoptera venom allergy. British Society for Allergy and Clinical Immunology (BSACI) guidelines (2011)

Definitions of terms used in this quality statement

Specialist allergy service

A service consisting of healthcare professionals with the skills and competencies needed to accurately investigate, diagnose, monitor and provide ongoing management of, and patient education about, suspected anaphylaxis. The service should be age appropriate if possible. [Adapted from NICE's guideline on anaphylaxis, recommendation 1.1.9]

Details of local allergy services are available from the BSACI 'find a clinic' search, including information on services with expertise, particularly in food, drug or venom allergies, or from the NHS website allergy service finder. [Expert opinion]

Assessment for venom immunotherapy

A number of criteria are evaluated before giving venom immunotherapy to identify whether the treatment is safe and appropriate. Assessment criteria for venom immunotherapy are provided in NICE's technology appraisal guidance on Pharmedgen for the treatment of bee and wasp venom allergy and BSACI's guideline on the diagnosis and management of Hymenoptera venom allergy. [Expert opinion]

Venom immunotherapy should be carried out only by allergy specialists with experience and knowledge in this field and in centres undertaking venom immunotherapy in significant numbers of patients and where the team has expertise in treating anaphylaxis. [BSACI's guideline on the diagnosis and management of Hymenoptera venom allergy]

Equality and diversity considerations

When referring people to a specialist allergy clinic, any potential difficulties in access, such as travelling distance, disability or financial barriers, should be taken into account.

Quality statement 4: Ongoing training in adrenaline auto-injector use

Quality statement

People who have received treatment for anaphylaxis are retrained on the use of their adrenaline auto-injector each time it is prescribed. **[2016, updated 2024]**

Rationale

Recurrence of anaphylaxis can occur a long time after the adrenaline auto-injector (AAI) is first prescribed. It is therefore important that the person who has received treatment for anaphylaxis, or their parents or carers if applicable, has regular training in its use to ensure it can be used effectively when needed.

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.

Process

Proportion of people who have received treatment for anaphylaxis who are retrained on the use of their AAI each time it is prescribed.

Numerator – the number in the denominator who are retrained to use their AAI.

Denominator – the number of people who have received treatment for anaphylaxis who are prescribed an AAI.

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

What the quality statement means for different audiences

Service providers (such as pharmacies, and paediatric and adult medical services) ensure that healthcare professionals can provide brand-specific training on the use of AAI each time they are prescribed to people who have received treatment for anaphylaxis.

Healthcare professionals (such as pharmacists and members of paediatric and adult medical services) provide brand-specific training for people who have received treatment for anaphylaxis, or their parents or carers if applicable, when an AAI is prescribed. They also ensure that the person is retrained with a trainer AAI on each prescription and remind them that AAI's expire and to check the date when they collect their prescription.

Commissioners ensure that services train people who have received treatment for anaphylaxis, or their parents or carers if applicable, how to use their AAI each time it is prescribed.

People who have received treatment for anaphylaxis, or their parents or carers if applicable, are shown how to use their specific brand of adrenaline auto-injector (AAI), with a trainer AAI, each time it is prescribed to ensure they know how to use it if needed. They are also reminded that AAI's expire and that they need to check the date when they collect their prescription.

Source guidance

- [Adrenaline auto-injector prescription for patients at risk of anaphylaxis: BSACI guidance for primary care. BSACI guidelines \(2023\)](#)
- [Adrenaline auto-injector. BSACI guidelines \(2016\)](#)

Definitions of terms used in this quality statement

Training in when to use an adrenaline auto-injector

There are a number of possible signs of anaphylaxis. People should be informed that any 1 of the following signs or symptoms is enough to warrant immediate use of an AAI:

- Airway (A): swelling in the throat, tongue or upper airways (tightening of the throat, hoarse voice, difficulty swallowing).
- Breathing (B): sudden-onset wheezing, breathing difficulty, noisy breathing.
- Circulation (C): dizziness, feeling faint, sudden sleepiness, tiredness, confusion, pale clammy skin, loss of consciousness.

People should be informed that if they experience any of the above signs or symptoms, they should not delay in administering an AAI, even if they also have signs that they would normally associate with a milder reaction (such as an itchy throat or swelling of the lips). They should take notice of severe signs and symptoms, regardless of what else is happening. If in any doubt about severity, or if previous reactions have been severe, an AAI should be used.

If there is no improvement 5 minutes after the first injection, or if there is a deterioration after an initial improvement, the second AAI should be used while waiting for the ambulance. Other medicines such as antihistamines and inhalers can be given as necessary.

The [Medicines and Healthcare products Regulatory Agency \(MHRA\)](#) has produced a [video for people with anaphylaxis](#) explaining what they should do if they experience an episode of anaphylaxis. This link can be provided to people when they are being shown how and when to use an AAI. [Adapted from the [MHRA and Commission on Human Medicines' Public Assessment Report of the Commission on Human Medicines' Adrenaline Auto-injector Expert Working Group: Recommendations to support the effective and safe use of adrenaline auto-injectors](#) and [MHRA's guidance on adrenaline auto-injectors](#)]

Training in how to use an adrenaline auto-injector

This includes:

- Ensuring the person knows they should carry 2 AAI with them at all times.
- Providing a brand-specific demonstration of using an AAI and practise using a training device.
- Encouraging the person to get familiar with the device by getting a trainer AAI from the manufacturer to practise with.

- Providing advice on lying down after using the AAI (or propping themselves up slightly if they are struggling to breathe). It is imperative to avoid any sudden change in posture and above all, the person must not stand up, or sit in a chair, even if they are feeling better due to the risk of cardiac arrest.

[Adapted from [NICE's guideline on anaphylaxis](#), recommendation 1.1.11, and the [MHRA and Commission on Human Medicines' Public Assessment Report of the Commission on Human Medicines' Adrenaline Auto-injector Expert Working Group: Recommendations to support the effective and safe use of adrenaline auto-injectors](#) (2021)]

Key information for people who have had an anaphylactic episode

What to do in an emergency:

- Use your AAI immediately if you have any signs of anaphylaxis. If in doubt, use. Do not delay.
- Dial 999 – say anaphylaxis ("ana-fill-axis") – straight after using your auto-injector.
- Lie down and raise your legs.
- Sit up if you are struggling to breathe, but do not change position suddenly.
- Lie down again as soon as you can.
- Stay lying down even if you are feeling better.
- You must not stand up even if someone encourages you to.
- Use your second AAI if you have not improved after 5 minutes.

Be prepared:

- Carry 2 AAI with you at all times.
- You must use your AAI as soon as you notice any signs of anaphylaxis.
- Make sure you know beforehand what the signs are so you can act swiftly.
- Make sure you know how to use your AAI before you need to. Get familiar with it. Get a trainer AAI from the manufacturer. Practise. If you change brand, get familiar with the new one. Each one is used differently.

[Adapted from the [MHRA and Commission on Human Medicines' Public Assessment Report of the Commission on Human Medicines' Adrenaline Auto-injector Expert Working Group: Recommendations to support the effective and safe use of adrenaline auto-injectors](#) (2021)]

Equality and diversity considerations

People should be provided with information about using AAls that they can easily read and understand themselves, or with support, so they can communicate effectively with health and social care services. 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. People should have access to an interpreter or advocate if needed.

For people with additional needs related to a disability, impairment or sensory loss, information should be provided as set out in [NHS England's Accessible Information Standard](#) or the equivalent standards for the devolved nations.

Update information

July 2024: This quality standard was updated, and the placeholder statement (statement 4) prioritised in 2016 was updated after the publication of guidance to support it. Quality statements 1 and 2 were swapped over and quality statement 1 was updated to ensure measurability and provide further detail in the definitions on training people with anaphylaxis on when and how to use an adrenalin auto-injector.

Statements are marked as:

- **[2016]** if the statement remains unchanged
- **[2016, updated 2024]** if the statement covers an area for quality improvement included in the 2016 quality standard and has been updated.

The [previous version of the quality standard for anaphylaxis](#) is available as a pdf.

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.

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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.

- [Anaphylaxis UK](#)
- [British Society for Allergy and Clinical Immunology](#)
- [Royal College of Physicians \(RCP\)](#)
- [Royal College of General Practitioners \(RCGP\)](#)
- [College of General Dentistry](#)