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Abdominal aortic aneurysm (AAA) screening standards

June 2021



NHS
SCOTLAND

We are committed to advancing equality, promoting diversity and championing human rights. These standards are intended to enhance improvements in health and social care for everyone, regardless of their age, disability, gender reassignment, marriage and civil partnership, pregnancy and maternity, race, religion or belief, sex, sexual orientation, socio-economic status or any other status. Suggested aspects to consider and recommended practice throughout the standards should be interpreted as being inclusive of everyone living in Scotland.

We carried out an equality impact assessment (EQIA) to help us consider if everyone accessing abdominal aortic aneurysm (AAA) screening will experience the intended benefits of these standards in a fair and equitable way. A copy of the AAA screening standards EQIA is available on request.

Healthcare Improvement Scotland is committed to ensuring that our standards are up to date, fit for purpose, and informed by high quality evidence and best practice. We consistently assess the validity of our standards, working with stakeholders across health and social care, the third sector and those with lived experience. We encourage you to contact the standards and indicators team at his.standardsandindicators@nhs.scot to notify us of any updates that the AAA screening standards project team may need to consider.

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Introduction

Abdominal aortic aneurysm

An abdominal aortic aneurysm (AAA) is a swelling (aneurysm) of the abdominal aorta. The abdominal aorta is the main blood vessel that leads away from the heart, down through the abdomen (tummy) to the rest of the body. The abdominal aorta is the largest blood vessel in the body and is usually around 1.5 cm to 2 cm wide.¹

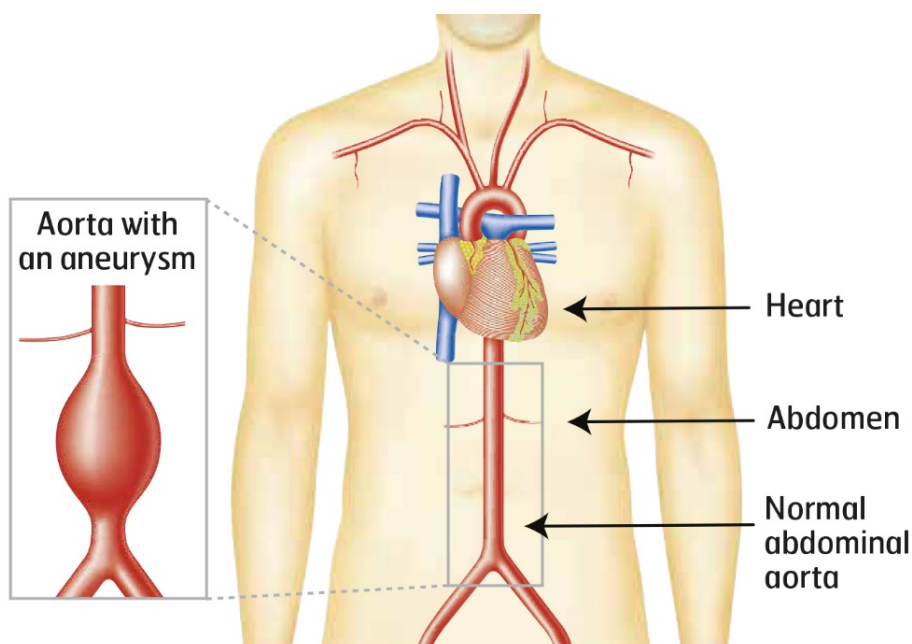


Illustration courtesy of the NHS AAA Screening Programme (England)

Abdominal aortic aneurysms are usually asymptomatic, meaning that the person is unaware they have an aneurysm. If an aneurysm remains undetected it can swell to a point where it can rupture, which is a life-threatening emergency. Almost half of people with a ruptured AAA will die before reaching hospital. In those who do have emergency surgery, around 40% will die of a ruptured AAA despite surgical intervention.²

AAA screening programme

AAA screening is a population-based screening programme for men which aims to reduce the number of deaths associated with the risk of an AAA rupture through early detection, appropriate monitoring and treatment.

Men are six times more likely to have an AAA than women. The incidence of AAA in women is less than 1%.³ AAAs are estimated to be present in almost 5% of the male population of Scotland aged 65 to 74 years.⁴ Evidence indicates that most ruptured AAAs occur in older men aged over 65.^{1, 5}

Routine AAA screening is offered to eligible men during the year they are aged 65 years. It is projected that screening for an AAA in this group, by ultrasound scanning, reduces death from a ruptured AAA by 50%.⁶ Women and men under 65 years are

not routinely screened for an AAA as there is currently no evidence to suggest screening these groups would deliver major benefits as part of a population-based screening programme.

The size of an AAA is the best predictor of AAA rupture. The threshold for AAA repair is based on the diameter of the AAA. AAAs less than 5.5 cm in diameter are managed conservatively through surveillance scanning as evidence indicates that there is little benefit in early elective surgical repair.^{7, 8} Men with an AAA of 5.5 cm or more in diameter, and deemed fit for surgery, are supported to consider surgical intervention as the risk of AAA rupture outweighs the operative risk for some men. Individuals are supported throughout this process and involved in decisions about which treatment options are right for them.

AAA screening eligibility

Men⁹ become eligible for AAA screening on their 65th birthday and are invited for screening before their 66th birthday.

The following individuals are not eligible and will not be invited for the AAA screening programme in Scotland:

- men under the age of 65 years, and
- women.

Men over 65 years of age, who have not been screened previously, can self refer into the AAA screening programme by contacting their local AAA screening office.

For further information on AAA screening eligibility, please visit the [NHS inform website](#).

Health inequalities

Health inequalities occur across society and have increased in Scotland at the same time as the overall health in the country has improved.

There are inequalities in the risk factors for an AAA and in the uptake of AAA screening. Some eligible men are less likely to attend AAA screening and this may increase health inequalities. There is evidence of a relationship between lower socio-economic status and lower screening uptake rates as well as higher AAA incidence rates.^{10, 11}

Health inequalities can manifest at any point in the AAA screening pathway and are evident at national, regional and local levels. There is important work to be done, both locally and nationally, to ensure that all eligible men have equity of opportunity to access and attend for AAA screening. Building on what works well and identifying innovative ways to engage with eligible men who do not attend for screening, including active membership of the AAA screening Inequalities and Communications Group, is essential to ensuring the efficacy of the AAA screening programme.

AAA screening process

AAA screening involves an ultrasound scan of the abdomen.¹² A practitioner measures the width of the aorta to determine the size of any potential aneurysm.

Most men have a normal result (this is determined by the national AAA screening programme as an aorta measuring less than 3 cm) and are discharged from the screening programme. Men detected as having a:

- small AAA (3 cm to 4.4 cm) or medium AAA (4.5 cm to 5.4 cm) are invited for a surveillance ultrasound scan to check its size. Men with a medium AAA are invited more frequently
- large AAA (aorta measures 5.5 cm or more) are referred to vascular services for an assessment and treatment where required.

If an individual's aorta cannot be visualised at the ultrasound scan appointment or if there is a problem with the quality of the scan image the local service will offer a further appointment.

Partners involved in AAA screening in Scotland

Territorial NHS boards

AAA screening is delivered by local programmes, some of which are collaborative groupings of NHS boards. There are eight local programmes in Scotland:¹³

- NHS Lothian and NHS Borders collaborative
- NHS Greater Glasgow and Clyde and NHS Forth Valley
- NHS Lanarkshire
- NHS Grampian, NHS Orkney and NHS Shetland collaborative
- NHS Highland and NHS Western Isles collaborative
- NHS Dumfries & Galloway
- NHS Ayrshire & Arran, and
- NHS Fife and NHS Tayside collaborative.

Each local AAA screening programme uses a national information technology system to manage the call and recall of men for AAA screening.

Individuals with a screen-detected AAA that meets the screening programme's eligibility criteria are referred in line with an agreed care pathway to an appropriate vascular services unit for assessment and treatment, where required.

Each of the 14 territorial boards has a governance responsibility for the availability and delivery of AAA screening and treatment services for the eligible population resident in their board area. This is irrespective of which territorial board carries out the screening scan and any subsequent treatment.

The National Screening Oversight Board

The National Screening Oversight Board (NSOB) provides a forum for oversight and assurance, at a system level, of the operational delivery and management of

screening programmes. The NSOB works with NHS boards, screening programme boards and screening service delivery partners, to provide leadership, direction, oversight and assurance of operational matters in relation to screening in Scotland.

National Services Division

National Services Division (NSD) has responsibility for the national co-ordination of the Scottish AAA screening programme. This involves co-ordinating groups central to the safe and effective delivery of AAA screening to discuss and agree protocols and pathways. These groups include staff who commission screening in NHS boards, programme clinicians, public health experts and staff that support the programme.

Public Health Scotland

Public Health Scotland (PHS) supports the national AAA screening programme to monitor programme performance. PHS informs programme decision-making through providing data analyses, including key performance indicator (KPI) reports.

PHS works closely with NSD and territorial NHS boards to support professionals and the public with resources promoting informed choice within the national screening programmes. It aims to make all public information as accessible as possible and facilitate opportunities for key stakeholders to work together to address the barriers to screening.

Healthcare Improvement Scotland

Healthcare Improvement Scotland supports NHSScotland's screening programmes through developing and revising new and existing standards, as well as undertaking external quality assurance of screening programmes.

Scottish Government Health Directorate

The Scottish Government Health Directorate (SGHD) provides policy direction for national screening programmes in Scotland. Screening policy is set by the SGHD on the advice of the UK National Screening Committee (UK NSC)¹⁴ and other appropriate bodies.

Policy context

The UK NSC sets screening policy for AAA screening throughout the four nations of the UK. The Scottish Screening Committee is a ministerial advisory committee that provides strategic oversight of screening services in Scotland and considers the implementation of all UK NSC recommendations in the context of specific Scottish circumstances.

In addition to AAA screening programme local guidance and standard operating procedures, the standards should also be read alongside other relevant legislation and guidance including:

- Recover, Restore, Renew. Chief Medical Officer for Scotland Annual Report¹⁵
- Health and Social Care Standards¹⁶
- National Health and Wellbeing Outcomes Framework¹⁷

- Organisational Duty of Candour guidance¹⁸
- Adults with Incapacity (Scotland) Act 2000¹⁹
- Healthcare Improvement Scotland learning from adverse events framework²⁰
- NICE Abdominal aortic aneurysm: diagnosis and management guideline²¹
- Scotland's public health priorities, and
- other applicable Healthcare Improvement Scotland guidance, including SIGN guidelines and standards.

The AAA screening standards are intended to complement, not duplicate, existing standards and guidelines. References to appropriate and relevant documentation have been included throughout the standards. These references are not an exhaustive list. Organisations, services and staff should continue to refer to appropriate and applicable professional guidance, policy and best practice.

Quality of care approach and framework

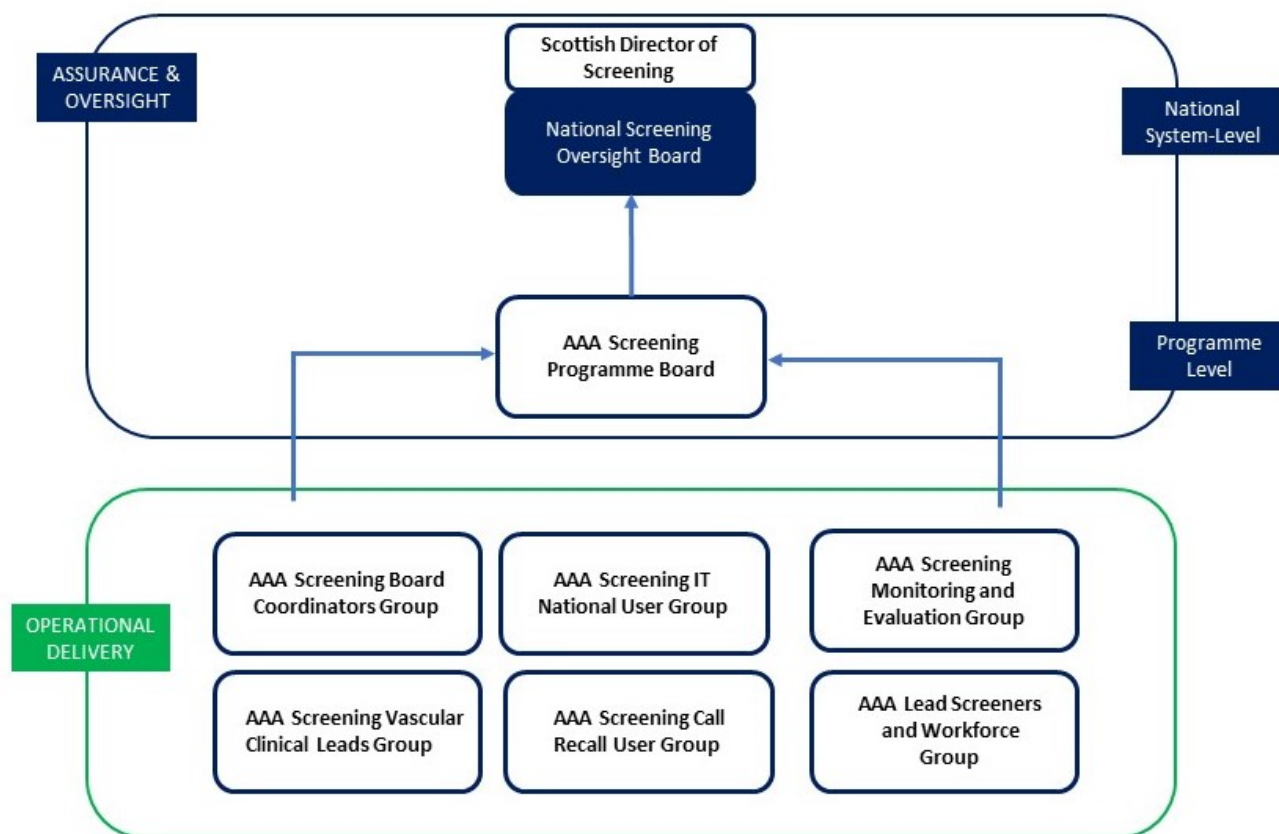
AAA screening standards are a key component in supporting the AAA screening programme approach to quality assurance. Monitoring performance against these standards, at a local and national level, aims to improve the quality of the AAA screening programme.

External quality assurance (EQA) of screening programmes will be carried out through the Healthcare Improvement Scotland quality of care approach and the quality framework.²² This approach specifies how Healthcare Improvement Scotland will design and deliver EQA activity to support improvement in healthcare.

The approach emphasises the importance of regular, open and honest programme self evaluation using the quality framework as a basis, combined with other relevant data and intelligence, including performance against these standards. More information about this approach is available on the [Healthcare Improvement Scotland website](#).

The national AAA screening programme

The national AAA screening programme has an established internal quality assurance (IQA) structure to assure the quality of AAA screening in Scotland. IQA is essential for screening programmes to ensure that potential harm is minimised and the benefits of screening maximised.



The national AAA screening programme governance structure

KPIs have been developed to monitor and evaluate the quality and performance of the national AAA screening programme. The purpose of reporting achievement of the KPIs is to give a high level view of the programme’s performance, act as a driver for continuous improvement, and direct specific review of any areas that appear to be underperforming.²³

The KPIs are reported in the annual [Scottish Abdominal Aortic Aneurysm Screening Programme Statistics report](#) published by Public Health Scotland.

Scottish AAA screening programme national review

In 2017 Healthcare Improvement Scotland conducted an EQA evaluation of AAA screening in Scotland at the request of the Scottish Government and Scottish Screening Committee.²⁴ The review group evaluated the overall performance of both the national programme and of the individual programmes against 10 key standards.

The [review findings and recommendations](#) for improvement have been taken into account in the development of these standards.

Scope of the standards

These standards map to the AAA screening programme participant pathway and apply to all services involved in the delivery of AAA screening within NHSScotland.

The standards cover the following areas:

- leadership and governance
- information
- call–recall
- attendance and uptake
- primary screening
- surveillance
- quality assurance of AAA image
- referral to vascular services
- treatment, and
- postoperative outcomes.

These standards apply to all healthcare organisations that deliver and support the AAA screening programme in Scotland. There are elements of the standards that will also apply to special health boards, where appropriate.

While territorial NHS boards work in partnership with a range of organisations, each board has responsibility and accountability for the delivery of a high quality, safe and effective AAA screening service to its resident eligible population.

Using the standards for self evaluation, assurance and improvement

All our standards follow the same format. Each standard includes:

- a statement of the level of performance to be achieved
- a rationale providing reasons why the standard is considered important
- a list of criteria describing the required structures, processes and outcomes
- what to expect if you are a person experiencing care
- what is expected if you are a member of staff, and
- what the standards mean for organisations, including examples of evidence of achievement.

Healthcare Improvement Scotland has published these standards to inform organisational self evaluation and improvement.

It is anticipated that all NHS boards work towards implementing these standards to assure themselves that they are delivering safe, effective, person-centred services across the AAA screening pathway.

Terminology

Wherever possible, generic terminology that can be applied across all settings has been used.

The term **man** refers to all individuals with a male Community Health Index (CHI) number. This includes trans men who change the gender of their CHI number to male, trans women who do not change their CHI number to female. It also includes men not registered with a GP.

Eligible men refers to men who become eligible for AAA screening on their 65th birthday and who are invited for AAA screening before their 66th birthday.

Consent is when a person gives their permission to receive treatment or an investigation or test. **Capacity to consent** refers to people having the ability to use and understand the information being given to them, for example, details of a procedure, risks and benefits, and implications of not being screened or treated.

Failsafe refers to processes designed to ensure that when something goes wrong there is a mechanism to identify the cause, and actions necessary to ensure a safe outcome.

NHS boards refers to all services that provide AAA screening services whether as a single or collaborative arrangement.

Primary screening refers to the initial visit for the AAA screening ultrasound examination.

Protected characteristic groups refers to groups of people that are protected under the Equality Act 2010. The law defines nine protected characteristics; age, disability, gender reassignment, marriage and civil partnership, pregnancy and maternity, race, religion or belief, sex and sexual orientation.

The term **screening service** is used to refer to the AAA screening pathway, from the identification of those eligible for AAA screening through to AAA treatment services.

Seldom-heard groups refers to under-represented people. Many factors can contribute to people who use services being seldom heard, for example, if they are from a marginalised group, homeless or experience issues associated with their mental health or socio-economic status.

Surveillance refers to the programme that participants enter into if an AAA is identified at primary screening. Participants are scanned at regular intervals depending on the size of their AAA.

Impact of COVID-19 pandemic on delivery of AAA screening programme

On 30 March 2020 the Scottish Government announced the [temporary pause of the national screening programmes](#) in Scotland, including AAA screening, due to the COVID-19 pandemic. The AAA screening programme recommenced in July 2020 and introduced new ways of working in response to requirements necessitated by COVID-19. This included increased clinic times to support infection, prevention and control measures. The national AAA screening programme continues to consider and implement a range of strategies to ensure that the programme achieves pre-COVID-19 pandemic performance.

Summary of standards

- Standard 1: Leadership and governance**
Scotland has a high quality and effectively led AAA screening programme with robust governance arrangements.
- Standard 2: Information**
All eligible men receive information about AAA screening to enable informed choice and person-centred decision making.
- Standard 3: Call–recall**
All eligible men are invited for AAA screening.
- Standard 4: Attendance and uptake**
The number of eligible men participating in AAA screening is maximised within the principles of informed choice.
- Standard 5: Primary screening**
Primary screening for an AAA is safe, high quality and person centred.
- Standard 6: Surveillance**
Surveillance scanning is safe, high quality and person centred.
- Standard 7: Quality assurance of AAA image**
The efficacy of the AAA screening programme is maximised through accuracy and quality of the scan image.
- Standard 8: Referral to vascular services**
Men are offered timely referral to the vascular services team for treatment, where required.
- Standard 9: Treatment**
Surgical treatment of an AAA is safe, effective and person centred.
- Standard 10: Postoperative outcomes**
Postoperative outcomes of men who have had their screen-detected AAA surgically repaired are monitored.

Standard 1: Leadership and governance

Standard statement

Scotland has a high quality and effectively led AAA screening programme with robust governance arrangements.

Rationale

Screening eligible men for an AAA can reduce the number of deaths associated with the risk of rupture.⁵

Surveillance, management and treatment, where appropriate, of a screen-detected AAA can significantly reduce the chance of rupture and a life limiting outcome.²⁵

Each territorial NHS board has responsibility for planning, availability, delivery and governance of AAA screening for eligible men resident in their board area. Directors of Public Health are the accountable officers for screening in territorial boards. Screening co-ordinators are responsible for overseeing local service delivery, quality and effectiveness of the AAA screening programme. Although AAA screening is delivered at NHS territorial board level by local programmes, some elements, including the IT system, are managed through NSD.

There are eight local AAA screening programmes in Scotland (some of which are collaborative groupings of territorial NHS boards).²⁴ Each programme (whether a single or collaborative board) is led by a vascular clinician who provides clinical guidance and leadership and a manager with responsibility for the call–recall service.

A range of professionals are involved in the delivery and assurance of AAA screening. Staff are provided with training and can access continued professional development (CPD), appropriate to their role and responsibilities.

High quality leadership of the AAA screening programme underpins a safe, effective and person-centred service. Strategies for continuous improvement, transparent accountability structures and promotion of positive cultures within the programme are fundamental principles of quality leadership.

Robust governance arrangements are essential for the delivery and assurance of AAA screening. These include defined roles, responsibilities and lines of accountability, adverse events management, data and performance monitoring and strategic approaches to access and uptake.

Evidence indicates that uptake of AAA screening is lower in some protected characteristic and seldom-heard groups.^{11, 26-28} Many people among these groups are at a higher risk of having an AAA.²⁸ Robust approaches to engaging with groups identified as the least likely to attend for screening, with regular review, improves equity of opportunity to access and uptake of AAA screening.

Criteria

- 1.1** NHS boards have a designated:
- public health lead with responsibility for overseeing and monitoring the provision of all aspects of the AAA screening programme that are delivered to the eligible AAA screening population in their board area
 - lead clinician with responsibility for clinical guidance and leadership of the local AAA screening programme
 - lead screener with responsibility for the screening workforce, delivering screening clinics, professional guidance and quality assurance of local AAA screening images, and
 - manager with responsibility for the delivery of the local call–recall service.²⁴
- 1.2** NHS boards ensure there are robust governance arrangements across the AAA screening programme, with clear lines of accountability.
- 1.3** NHS boards ensure there are well defined pathways of care and protocols to facilitate:
- timely and person-centred access and invitation to AAA screening, recall for screening, and referral to treatment services
 - timely communication and transfer of information between public health departments, call–recall departments, screening clinics, primary care, and secondary care
 - shared decision making with the person, and
 - signposting to additional means of support including the third sector, where appropriate.
- 1.4** NHS boards have systems and processes to demonstrate:
- equitable provision and monitoring of the AAA screening programme in line with national guidance and standards
 - a multidisciplinary approach to AAA screening, including treatment services
 - implementation of policies and processes to ensure equity of opportunity for all eligible men to access AAA screening
 - education and training programmes for staff involved in AAA screening, appropriate to roles and responsibilities
 - use of national IT systems, consistent documentation and data collection to support benchmarking against quality outcomes and KPIs, and
 - ongoing quality monitoring, assurance and improvement, including offering individuals the opportunity to provide feedback on their experience to inform service improvements.

- 1.5** NHS boards commit to addressing health inequalities in AAA screening through:
- understanding their local population to identify and engage with men who may experience barriers in accessing and attending for AAA screening
 - implementing strategies to maximise uptake with men who experience barriers, across the AAA screening pathway, and within the principles of informed choice
 - participation in a national forum for sharing good practice, and
 - active membership of the AAA screening Inequalities and Communications Group.
- 1.6** NHS boards ensure appropriate failsafe mechanisms are in place across the whole AAA screening pathway.
- 1.7** NHS boards have a clearly written and structured escalation and adverse event process in place, in line with local and national policies.²⁰
- 1.8** NHS boards ensure that staff delivering any aspect of AAA screening:
- demonstrate a person-centred and compassionate approach
 - have access to and undertake training and CPD, appropriate to their role and responsibilities
 - maintain competency through CPD and participation in audit and quality assurance activities
 - understand governance arrangements, including reporting and escalation mechanisms for adverse events
 - are supported to actively participate in local and national AAA screening governance groups, appropriate to their role and responsibilities, and
 - have access to relevant national professional guidance and standards.
- 1.9** NHS boards monitor, report and review all cases of AAA rupture in the eligible local population and take appropriate action, in line with effective clinical governance.

What does the standard mean for men participating in AAA screening?
Men have confidence that: <ul style="list-style-type: none"> • their local AAA screening service has effective leadership and robust governance arrangements, and is committed to quality improvement, and • staff will work together to provide high quality and person-centred care, and their information will be shared appropriately. Men are offered the opportunity to provide feedback on their experience.
What does the standard mean for staff?
Staff are supported by designated lead professionals. Staff have an understanding of:

- governance arrangements in the AAA screening programme appropriate to their role
- how to access care pathways, standards and guidance
- barriers men may experience in attending for AAA screening, and
- guidance and support on how to report and escalate adverse events.

Staff:

- demonstrate knowledge, skills and competencies relevant to their role and responsibilities
- are aware of their role within the multidisciplinary team, and
- are supported to contribute to local and national AAA screening governance groups, appropriate to role and responsibilities.

What does the standard mean for organisations?

NHS boards:

- have robust governance arrangements in place for roles, responsibilities and lines of accountability, including adverse event management
- ensure co-ordinated, person-centred pathways for access and uptake of AAA screening are developed and implemented
- ensure barriers to access and uptake of AAA screening are understood and action plans are in place to minimise barriers
- have failsafe processes in place for the purpose of monitoring AAA screening, and
- ensure that staff are provided with relevant and regular training and CPD.

Practical examples of evidence of achievement *(NOTE: this list is not exhaustive)*

- Documentation describing lines of accountability and roles and responsibilities.
- Management of adverse events, for example, evidence of using NSS Management of Adverse Events in National Screening Programmes Policy.
- Local and national governance group reports or minutes.
- Multidisciplinary working, including involvement of professionals across the AAA screening pathway.
- Evidence of implementation of self evaluation with reporting of activities and progress.
- Development and review of Island Communities Impact Assessments and implementation of recommendations.²⁹
- Local and national standard operating procedures.
- Demonstration of timely and person-centred communication and approach for men to access AAA screening, surveillance scanning and treatment services, for example men who live in remote and rural areas.
- Monitoring, reporting and review of KPIs.
- Risk registers that identify, for example, potential future risks to quality as well as internal risks.

- Evidence of improvement work, including action plans, data collection and review of data, for example, person reported outcomes and experience measures, and national benchmarking.
- Review of Health Inequalities Impact Assessments³⁰ and audit of engagement with seldom heard groups, with action plans to address health inequalities in AAA screening.
- Reports or minutes from good practice forums.
- Regular review of staff skills and provision and uptake of relevant training across the AAA screening programme, including reports of mandatory training undertaken by staff.
- Evidence of accessible documentation describing ways participants can submit a complaint or feedback.
- Feedback from individuals who have participated in AAA screening and evidence of learning and service improvements from complaints or feedback.
- Active membership of the AAA screening Inequalities and Communications Group.

Standard 2: Information

Standard statement

All eligible men receive information about AAA screening to enable informed choice and person-centred decision-making.

Rationale

Men, and where appropriate their family and carers, are guided throughout the complete AAA screening process with opportunities to discuss any aspect of AAA screening. Individuals are provided with relevant and balanced information about the benefits and implications of AAA screening to make a decision whether or not to participate in the programme. This choice is one that is right for them and fits with their values and unique circumstances.³¹ It is essential that steps are taken to ensure that individuals have the ability to provide valid, informed consent. Assessment of a participant's capacity is a continuous dynamic process across the AAA screening pathway.

Providing high quality, accessible and accurate information is essential to supporting individuals to make a personal informed choice. Information provided should:

- be in a user-friendly format guided by Public Health Scotland's accessible information policy³²
- include details of both the benefits and implications of AAA screening, and
- observe the UK NSC Guidance for development, production and review of information to support UK population screening programmes.³³

Men, and where appropriate their family and carers are supported to have the knowledge, understanding and confidence to use the information provided to make decisions about their care.^{34, 35} Strategies to improve health literacy are important empowerment tools which have the potential to reduce health inequalities³⁶ in AAA screening.

Criteria

- 2.1** NHS boards provide men with national AAA screening information at the time of invitation, including signposting to formats and languages appropriate to their need. This information includes:
- what an AAA is and the associated risk factors
 - why they have been offered AAA screening
 - the benefits and implications of AAA screening to enable an informed choice about whether or not to attend the AAA screening appointment
 - what happens at the AAA screening appointment and an explanation of what the screening scan test looks for
 - an explanation that they will get their results at the appointment, including detail about what the results mean, and
 - who to contact about any concerns, or for more information.
- 2.2** NHS boards ensure that men detected as having an AAA:
- are provided with national AAA screening information relevant to the size of their AAA
 - are signposted to formats and languages appropriate to their need, where required, and
 - know who to contact for further support.
- 2.3** NHS boards ensure that men are:
- fully involved in all decision making relating to AAA screening, and
 - given an opportunity at their AAA screening appointment to ask questions or discuss concerns.
- 2.4** Eligible men who decide not to participate in AAA screening are made aware of how to make a further screening appointment if their circumstances or decision changes.

What does the standard mean for men participating in AAA screening?

Men:

- receive an invitation letter and information leaflet that provide an overview of the AAA screening process, including the benefits and implications, to enable them to make an informed and considered choice about whether or not to undergo the AAA screening scan test
- are signposted to information in alternative formats and languages appropriate to their needs
- are given information on their screening scan results, the options available to them, and any implications this may have on their daily lives
- are fully informed and involved in decision making relating to the AAA screening process, including how to make a further screening appointment if they initially opt out but decide to undertake the screening scan test at a later date, and

<ul style="list-style-type: none"> • are given the opportunity at their screening appointment to discuss any aspect of the AAA screening process and raise any questions or concerns.
<p>What does the standard mean for staff?</p>
<p>Staff:</p> <ul style="list-style-type: none"> • provide current information and guidance in relation to AAA screening to enable men to reach informed decisions about whether or not to participate in AAA screening, and • offer a responsive and person-centred service with appropriate information for all men participating in AAA screening.
<p>What does the standard mean for organisations?</p>
<p>NHS boards have systems and processes in place to ensure:</p> <ul style="list-style-type: none"> • the availability of appropriate and timely information • access to support resources, and • the provision of a responsive and person-centred AAA screening service.
<p>Practical examples of evidence of achievement <i>(NOTE: this list is not exhaustive)</i></p>
<ul style="list-style-type: none"> • Evidence of nationally agreed information promptly provided in alternative formats and languages (for example easy-read and British Sign Language versions). • Documentation relating to decision making and informed choice for participation in AAA screening. • Provision and uptake of training for staff to provide a responsive and person-centred service and information to men attending for AAA screening. • Signposting to appropriate online resources, for example NHS Inform AAA screening information and videos on what participant's should expect at AAA screening appointments.²⁵

Standard 3: Call–recall

Standard statement

All eligible men are invited for AAA screening.

Rationale

An effective and systematic call–recall system improves uptake, coverage and the impact of the AAA screening programme in Scotland by maximising the number of eligible men invited for AAA screening. An effective call–recall system also safely tracks and follows up men who require a further AAA screening scan appointment.

Men become eligible on their 65th birthday and are invited for AAA screening before their 66th birthday. Eligible men are identified through the Community Health Index system (whether or not they are registered with a GP) and included within the national AAA screening call–recall system. The invitation includes details of the screening appointment and relevant nationally agreed information.¹²

It is essential that AAA screening is delivered in a way that addresses local health inequalities, with tailored and targeted interventions, where appropriate.

The national AAA screening programme includes KPIs for inviting men to attend for AAA screening. These KPIs measure performance and act as a driver for continuous improvement.³⁷

Criteria

- 3.1 All eligible men are routinely invited for AAA screening during the year they are aged 65 years.
- 3.2 NHS boards implement protocols to:
 - identify, as early as possible, eligible men that have not received an invitation to attend for AAA screening
 - enable men aged 66 years and over who have never attended for AAA screening to self refer
 - promptly action alerts in the call–recall system, and
 - regularly assess and quality assure the AAA screening call–recall process including follow-up actions, as appropriate.

3.3 NHS boards have a system in place to:

- identify all men eligible for AAA screening
- invite all men eligible for AAA screening in a timely manner
- recall all men who require a surveillance scan in line with nationally agreed intervals
- promptly recall men, identified through audit, whose screening scan image quality does not meet national criteria
- follow up men whose aorta could not be visualised at the primary screening appointment, for a further scan in line with national protocols
- recall and follow up men who have been invited but have not attended for AAA screening
- audit AAA screening participation across deprivation quintiles, with actions to maximise attendance
- refer men to vascular services, where required, and
- alert the national AAA screening programme to any issues within the call–recall function.³⁸

3.4 NHS boards have arrangements in place for the call–recall of all eligible men registered on CHI, including those:

- not registered with a general practitioner, and
- from seldom-heard groups who may be less likely to access AAA screening.

3.5 NHS boards monitor, report and review the call–recall process in line with the KPIs for the national AAA screening programme.

What does the standard mean for men participating in AAA screening?
Men: <ul style="list-style-type: none"> • are invited to attend for AAA screening in the year they are aged 65 • are provided with opportunities to attend for AAA screening that takes into account their personal circumstances and where they live, and • are assured there is a robust AAA screening call–recall system.
What does the standard mean for staff?
Staff are trained and can demonstrate awareness and knowledge, relevant to their role and responsibilities, of the following <ul style="list-style-type: none"> • the AAA screening programme eligibility criteria • the call–recall system and pathways, and • failsafe processes.
What does the standard mean for organisations?
NHS boards:

- have an effective call–recall system in place to maximise the number of eligible men participating in AAA screening
- monitor and periodically review standing operating procedures for the AAA screening call–recall system
- have failsafe arrangements in place, including action plans where issues are identified
- monitor training and competencies of staff, and
- monitor, report and review the call–recall system in line with the KPIs for the national AAA screening programme.

Practical examples of evidence of achievement (NOTE: this list is not exhaustive)

- Protocols for inviting eligible men for AAA screening.
- Protocols for men who require a further primary screening and surveillance scan appointment.
- Monitoring processes and reports detailing routine call–recall rates within agreed defined reporting periods.
- Standard operating procedures and version control.
- Protocols for the sharing of information between staff, which are compliant with General Data Protection Regulation (GDPR).
- Health Inequalities Impact Assessments.
- Audits identifying barriers to accessing screening and action plans to address these, including barriers associated with, for example, seldom-heard groups and remote and rural communities.
- Regular user acceptance testing.
- Evidence of actions to address quality issues within the call–recall function.
- Risk registers with mitigating actions.
- KPI invitation and uptake data and reporting.
- Robust failsafe arrangements with reporting against agreed failsafe processes.
- Targeted approaches to raising awareness of the AAA screening programme, for example local programme engagement with general practice, primary care services and outreach work through health improvement teams and third sector organisations.

Standard 4: Attendance and uptake

Standard statement

The number of eligible men participating in AAA screening is maximised within the principles of informed choice.

Rationale

Performance of the AAA screening programme is optimised and the benefits of AAA screening maximised when screening uptake is high.³⁹

In the past, the AAA screening programme in Scotland has had high uptake rates. Evidence, however, indicates that people from seldom-heard groups, especially men experiencing economic disadvantage who are also most likely to have an AAA, are less likely to attend and participate in AAA screening.^{10, 11, 37}

An inclusive AAA screening programme is underpinned by:

- identifying and actively engaging with seldom-heard groups of eligible men who are less likely to attend for screening (for example people with learning and physical disabilities, Gypsy/Traveller communities, and people from areas of deprivation), and
- implementing approaches to minimise barriers to uptake.

The national AAA screening programme has set performance thresholds to monitor the uptake of AAA screening. This provides an indication of the accessibility of the service and the acceptability of the AAA screening scan test.³⁷

Criteria

- 4.1** NHS boards maximise uptake of AAA screening in eligible men, within the principles of informed choice, by:
- ensuring men are offered opportunities to attend for screening, including providing them with reasonable notice of their screening appointment
 - monitoring and using local uptake data to support men to attend for AAA screening, and
 - implementing approaches to reduce non-attendance for screening.

4.2 NHS boards implement approaches to addressing health inequalities in AAA screening through:

- regularly undertaking a needs analysis to understand barriers to uptake and ensuring action plans are in place to address these barriers
- analysing and responding to local screening uptake data to identify eligible groups that are less likely to attend for AAA screening
- reporting on local uptake rates within each deprivation quintile to inform planning of AAA screening clinics in areas of low attendance
- having processes and protocols in place to engage and support men from groups with lower than anticipated uptake
- working in partnership with other service providers, including the third sector, to ensure equity of opportunity for eligible men to attend for AAA screening, and
- sharing local NHS board learning with the national AAA screening programme through relevant governance groups.

4.3 NHS boards monitor, report and review their AAA screening uptake rates in line with the KPIs for the national AAA screening programme.

What does the standard mean for men participating in AAA screening?
Men are provided with opportunities to attend for AAA screening regardless of their personal circumstances or where they live.
What does the standard mean for staff?
Staff: <ul style="list-style-type: none"> • are supported, relevant to their role and responsibilities, to maximise AAA screening attendance • understand and implement approaches to addressing health inequalities within the AAA screening programme, relevant to their role and responsibilities, and • understand their role in supporting their service to achieve the uptake rates set out by the national AAA screening programme.
What does the standard mean for organisations?
NHS boards: <ul style="list-style-type: none"> • analyse local uptake data to identify groups resident within their board area who may be less likely to participate in AAA screening • identify mechanisms to engage with men identified as least likely to attend for screening and implement approaches to encourage participation in the AAA screening programme • work in partnership with other service providers to increase participation levels among groups with low attendance • share local learning about approaches to health inequalities to support the efficacy of the national AAA screening programme, and • monitor, report and review their AAA screening uptake rates in line with the KPIs for the national AAA screening programme.

Practical examples of evidence of achievement (NOTE: this list is not exhaustive)

- Targeted engagement to identify men with associated risks factors that make them more likely to have an AAA.
- Needs assessment and audit data on uptake of AAA screening.
- Action plans to demonstrate the NHS board is working to maximise uptake, particularly with groups in which attendance is low.
- Approaches to maximise uptake of AAA screening, within the principles of informed choice, for example the Bridging the Gap project.⁴⁰
- Evidence of support provided to people with additional communication needs, for example interpretation and translation services, support for disabled people and people with health literacy needs.
- Evidence of addressing practical barriers to attending for AAA screening, for example implementation of recommendations from screening site assessments.

Standard 5: Primary screening

Standard statement

Primary screening for an AAA is safe, high quality and person centred.

Rationale

Primary screening for an AAA involves an abdominal ultrasound scan (sonogram) of the individual's abdominal aorta. A practitioner measures the aorta to determine its diameter.²⁵

Trained and competent staff who can confidently and appropriately undertake primary screening contribute to safe, high quality and person-centred care.

All aspects of the primary screening episode are discussed with men (and their family and carers, where appropriate). Immediately following the scan, individuals are verbally informed of their results in a person-centred and compassionate manner. Screening practitioners fully discuss this result and, where required, make arrangements for surveillance scanning and referral to vascular services for further investigation.

Every effort is made to obtain a definitive and timely diagnosis of an AAA at primary screening. Recall of men whose image does not meet image quality guidance is minimised to reduce unnecessary anxiety. Evidence suggests that deprivation quintile of the individual and competency of staff are significant predictors for a non-visualised aorta at first scan.⁴¹ In the instance where the aortic diameter cannot be visualised, other suitable arrangements are made by the call–recall team.

Providing information on the risk factors for an AAA (for example smoking⁴² and high blood pressure) along with advice on lifestyle (for example smoking cessation^{43, 44} and weight management) may have a positive impact on men participating in the AAA screening programme.

Communication of results is an essential part of the AAA screening programme. Confirmation of ultrasound scan results are shared directly with all primary screening participants. Individuals' GP practices are notified when an AAA has been identified. Effective communication with GP practices includes providing advice to optimise an individual's care, where appropriate. Relevant health professionals are informed of an individual's positive result, where required.

The national AAA screening programme has set performance thresholds to monitor the uptake of AAA screening at primary screening.³⁷

Criteria

- 5.1** The primary screening process is carried out in line with national guidance and protocols.

- 5.2** All primary screening scan images are taken in line with current best practice and national guidance.
- 5.3** All primary screening equipment is maintained, tested and used in line with national guidance and regulations.
- 5.4** NHS boards ensure that primary screening for an AAA is person centred through:
- easy and timely access
 - identifying the specific needs of different groups to access and attend their primary screening appointment, and
 - support for an individual's specific communication and access needs.
- 5.5** NHS boards ensure that primary screening image quality and reporting is undertaken in line with national guidance.
- 5.6** NHS boards have processes in place to review and follow up, where appropriate:
- audited screening images that do not meet national requirements, and
 - men whose aorta cannot be visualised.
- 5.7** NHS boards ensure that clinical staff involved in AAA screening:
- hold a valid certificate of competence to practice AAA screening from a Consortium for the Accreditation of Sonographic Education (CASE) accredited course⁴⁵
 - are trained, skilled, knowledgeable and competent in achieving a successful ultrasound of the abdominal aorta, in line with the AAA Screening Competency Framework⁴⁶
 - are trained to provide all screening scan results to men (and their family and carers, where appropriate) in a sensitive manner
 - are trained to provide evidence-based lifestyle advice to men, where appropriate
 - are trained in communication and engagement techniques to support and maximise attendance
 - have knowledge about the benefits and implications of AAA screening, and the groups within the population who are most at risk
 - understand and use the AAA screening IT system as appropriate to their role, and
 - are involved in ongoing quality assurance processes, including undertaking continued training and development relevant to their role and responsibilities, in line with the AAA Screening Competency Framework.⁴⁶

5.8 NHS boards ensure that all screening scan test results and vascular services referral information and documentation is:

- shared with the individual, in person at the screening appointment, and by letter following primary screening, and
- communicated to the respective GP practice, and relevant health professionals, where appropriate.

5.9 NHS boards monitor, report and review the primary screening process in line with the KPIs for the national AAA screening programme.

What does the standard mean for men participating in AAA screening?
<p>Men:</p> <ul style="list-style-type: none"> • experience a safe, high quality and person-centred primary screening service • receive the results of their primary screening scan, in person, at the primary screening appointment • know what the result of the primary screening scan means for them, and receive relevant information and guidance, and • have confidence that staff will make every effort to minimise the need for them to attend a second screening appointment for their primary screening scan.
What does the standard mean for staff?
<p>Staff:</p> <ul style="list-style-type: none"> • demonstrate knowledge and skills, appropriate to their role and responsibilities, in undertaking AAA primary screening, in line with professional competency frameworks • provide relevant information in a way that is appropriate for the individual and signpost individuals to appropriate support services, where required • understand, and work within, national guidance relating to equipment maintenance and image quality, in line with their role and responsibilities, and • are supported to attend regular training, CPD and assessment, for example accreditation and skills development.
What does the standard mean for organisations?
<p>NHS boards:</p> <ul style="list-style-type: none"> • have processes in place to ensure primary screening is carried out in line with national protocols and guidance • ensure equipment for primary screening is safe and effective • ensure primary screening is carried out by appropriately accredited, trained and competent staff • are committed to addressing health inequalities by using local uptake data to inform screening clinic arrangements • minimise the need to recall men whose image does not meet image quality requirements, and

- monitor, report and review the primary screening process in line with the KPIs for the national AAA screening programme.

Practical examples of evidence of achievement (NOTE: this list is not exhaustive)

- Valid certificate of competence, from a CASE accredited course, to practice AAA screening.⁴⁵
- Scottish AAA Screening Programme Standard Operating Procedures.
- Health promotion information, for example signposting to weight management, community connectors and link workers within GP practices and smoking cessation programmes.
- Availability of information for people about DVLA AAA reporting, including leaflets and signposting to appropriate online resources.
- Local screening performance data audit.
- Evidence of competency frameworks, appropriate to role and workplace setting.
- Provision and uptake of relevant training for staff, for example Health Inequality Awareness, NHS Education for Scotland's Map of Behaviour Change Training Programme⁴⁷ and practical workshops for screening practitioners.
- Evidence of appropriate information sharing, for example Key Information Summary (KIS) and electronic patient record.
- Evidence of support provided to people with additional communication needs, for example interpretation and translation services, support for disabled people and people with health literacy needs.
- Evaluation of training needs and training programmes.

Standard 6: Surveillance

Standard statement

Surveillance scanning is safe, high quality and person centred.

Rationale

Monitoring the growth of a screen-detected AAA is an essential component of the AAA screening programme. This enables referral to vascular services for further investigation and possible surgical intervention, where required.

The AAA screening programme has identified intervals for men invited for surveillance scanning. These men have AAAs not deemed immediately life threatening, but warrant monitoring through regular scanning.⁴⁴ Evidence indicates there is no reduction in the rate of AAA related deaths in men that have early elective surgical repair.^{8, 44, 48}

Men whose AAA size meets the AAA screening programme's threshold for a large AAA are referred to vascular services for consideration of surgical intervention. At this stage, the risk of rupture outweighs any operative risk for some men.²¹

All men are guided throughout the surveillance scan process. Information on the risk factors for an AAA, for example smoking⁴² and high blood pressure, along with advice on lifestyle, including smoking cessation, is provided to men at surveillance scan, where appropriate.^{43, 44} Lifestyle changes to reduce the risk from modifiable risk factors in men attending for surveillance scanning can optimise care. This includes those men who go on to have elective surgical repair.

Communication of results to the individual is an essential part of the AAA screening programme. GP practices are notified of individuals who attend surveillance scanning. Effective communication with GP practices includes providing advice to optimise an individual's care, where appropriate. Relevant health professionals are informed of an individual's surveillance scan, where required.

The national AAA screening programme has set performance thresholds to monitor uptake of AAA surveillance scanning.³⁷

Criteria

- 6.1** The surveillance scan process is carried out in line with national guidance and protocols.
- 6.2** All surveillance scan images are taken in line with current best practice and national guidance.
- 6.3** All surveillance scan equipment is maintained, tested and used in line with national guidance and regulations.

- 6.4** NHS boards ensure that surveillance scan image quality and reporting is undertaken in line with national guidance.
- 6.5** NHS boards have processes in place to review and follow up men in line with Criterion 5.6.
- 6.6** NHS boards ensure that staff involved in surveillance scanning comply with Criterion 5.7.
- 6.7** NHS boards follow national guidance to support men who do not attend their surveillance scan appointment to attend a further appointment.
- 6.8** NHS boards ensure that vascular services referral information, where required, is:
- shared with the individual in person at the appointment and by letter following the surveillance scan appointment, and
 - communicated to the respective GP practice and relevant health professionals.
- 6.9** NHS boards monitor, report and review the surveillance scanning process in line with the KPIs for the national AAA screening programme.

What does the standard mean for men participating in AAA screening?
<p>Men:</p> <ul style="list-style-type: none"> • experience a safe, high quality and person-centred AAA surveillance scanning service • are informed about the purpose of surveillance • know what the result of the AAA surveillance scanning scan test means for them, and • receive relevant information and guidance.
What does the standard mean for staff?
<p>Staff:</p> <ul style="list-style-type: none"> • demonstrate knowledge and skills appropriate to their role and responsibilities in undertaking AAA surveillance scanning in line with professional competency frameworks • understand, and work within, national guidance relating to equipment maintenance and image quality, in line with their role and responsibilities, and • are supported to attend regular training, CPD and assessment.
What does the standard mean for organisations?
<p>NHS boards:</p> <ul style="list-style-type: none"> • have processes are in place to ensure AAA surveillance scanning is carried out in line with national protocols and guidance • ensure equipment for AAA surveillance scanning is safe and effective

- ensure AAA surveillance scanning is carried out by appropriately accredited, trained and competent staff
- are committed to addressing health inequalities by using local uptake data to inform screening clinic arrangements
- minimise the need to recall men whose image does not meet image quality requirements, and
- monitor, report and review the surveillance scanning process in line with the KPIs for the national AAA screening programme.

Practical examples of evidence of achievement (NOTE: this list is not exhaustive)

- Valid certificate of competence, from a CASE accredited course, to practice AAA screening.⁴⁵
- Compliance with the AAA screening programme Competency Framework for the Screening Workforce.⁴⁶
- Practical workshops for screening practitioners.
- Health promotion information, for example signposting to weight management and smoking cessation programmes.
- Availability of information for people about DVLA AAA reporting, including leaflets and signposting appropriate online resources.
- Local screening performance data audit.
- Evidence of competency frameworks appropriate to role and workplace setting.
- Provision and uptake of relevant training for staff, for example Health Inequality Awareness and NHS Education for Scotland's Map of Behaviour Change Training Programme.⁴⁷
- Standard operating procedures and version control.
- Compliance with best practice and national guidance, for example the AAA screening programme Best Practice for Image Quality Guidance.⁴⁹
- Evidence of signposting to appropriate positive lifestyle programmes, for example fitness programmes.
- Evidence of appropriate information sharing, for example, KIS and electronic patient record.
- Evidence of support provided to people with additional communication needs, for example interpretation and translation services, support for disabled people and people with health literacy needs.
- Evaluation of training needs and training programmes.

Standard 7: Quality assurance of AAA image

Standard statement

The efficacy of the AAA screening programme is maximised through accuracy and quality of the scan image.

Rationale

Accurate measurement of the abdominal aorta is fundamental to a safe and high quality AAA screening service. A quality image, which includes the ability to detect the aorta and measure its diameter, relies on the skill of the practitioner,⁵⁰ human factors and quality of the scanner.⁵¹

Trained and competent AAA screening practitioners are supported by a lead screener to assure the accuracy and quality of all AAA screening scans.

A national quarterly review and assessment of a sample of images is undertaken by a skilled and experienced professional lead to support quality assurance of the screening event and images.

To ensure continuous quality improvement in the AAA screening programme, some men are invited to return if their previous scan does not meet quality assurance criteria when audited. Men are supported through this process. Every effort is made to minimise any adverse effects of screening, including anxiety and unnecessary AAA screening appointments.

The national AAA screening programme has set performance thresholds to monitor the quality of the AAA screening process.³⁷

Criteria

7.1 All staff who review and quality assure AAA screening images:

- are lead screeners who act as the screening professional lead for screening staff
- are trained, skilled and competent in line with national guidance and best practice
- provide direction and professional support for AAA screening practitioners, and
- provide appropriate feedback and support to AAA screening practitioners on the quality of their work.

7.2 NHS boards ensure that:

- quality assurance of AAA screening scan images selected for audit is in line with national guidance, and
- all men whose images are audited and found not to meet national quality criteria are promptly recalled and rescanned.

7.3 AAA screening scan images are stored:

- for educational purposes to improve measurement technique and for service improvement purposes
- to comply with duty of candour regulations and responsibilities, and
- to enable a review of measurements, where required.

7.4 NHS boards monitor, report and review the quality of the screening process in line with the KPIs for the national AAA screening programme.

What does the standard mean for men participating in AAA screening?
Men have confidence that there are robust internal quality assurance processes throughout the AAA screening pathway.
What does the standard mean for staff?
Staff: <ul style="list-style-type: none"> • can demonstrate knowledge and skills when carrying out AAA screening in line with professional competency frameworks • participate in screening image quality assurance processes, including adverse event reporting, and • are provided with feedback and support to improve their skills in AAA screening.
What does the standard mean for organisations?
NHS boards: <ul style="list-style-type: none"> • ensure processes are in place and are monitored for compliance with current and national guidance • ensure recall for repeat AAA screening is monitored • minimise the need to recall, and • monitor, report and review the screening image quality in line with the KPIs for the national AAA screening programme.
Practical examples of evidence of achievement (NOTE: this list is not exhaustive)
<ul style="list-style-type: none"> • Compliance with national guidance and best practice, for example the AAA screening programme Best Practice for Image Quality Guidance.⁴⁹ • Documentation describing roles and responsibilities of lead screeners. • Quarterly integrated local quality assurance sessions. • Evidence of periodic audit and review of AAA screening images. • Provision and uptake of training for AAA screening practitioners to improve skills in ultrasound scanning. • Evaluation of training needs and training programmes. • Evidence of men whose AAA scan image do not meet national quality criteria being recalled and rescanned.

Standard 8: Referral to vascular services

Standard statement

Men are offered timely referral to the vascular services team for treatment, where required.

Rationale

AAA size is the major determinant of rupture risk.⁵² Men with a screen-detected AAA, and whose AAA size meets the AAA screening programme's criteria³ for surgical intervention are referred to an accredited vascular service for investigation and consideration for treatment. This process is in line with nationally agreed timeframes.⁵³ Appropriate and timely referral can improve health and wellbeing outcomes.⁵⁴

Men (and their family and carers where appropriate) are fully informed about the referral process and provided with nationally agreed person-centred information with opportunities to ask questions.

The national AAA screening programme has set performance thresholds to monitor referral to vascular services.³⁷

Criteria

- 8.1 All men with an aorta ≥ 5.5 cm are referred, within nationally agreed timeframes, to an accredited vascular service to discuss treatment and management options.
- 8.2 NHS boards follow up men who do not attend their vascular service outpatient appointment.
- 8.3 NHS boards monitor, report and review the referral to vascular services process in line with the KPIs for the national AAA screening programme.

What does the standard mean for men participating in AAA screening?

Men:

- know why they have been referred to the vascular services team
- are referred to an accredited vascular service within nationally agreed timeframes, and
- have confidence that there are robust referral protocols.

What does the standard mean for staff?

Staff involved in the vascular services referral process ensure referral is undertaken within nationally agreed timeframes.

What does the standard mean for organisations?

NHS boards ensure:

- eligible men are referred to an accredited vascular service within nationally agreed timeframes
- processes and care pathways are in place to enable timely referral
- pathways are in place to monitor surgical referral compliance with national guidance, and
- escalation processes are in place where there is non-compliance with national guidance.

NHS boards:

- follow up individuals that have not attended their vascular service outpatient appointment, and
- monitor, report and review surgical referral in line with the KPIs for the national AAA screening programme.

Practical examples of evidence of achievement (NOTE: this list is not exhaustive)

- Data demonstrating achievement of KPIs.
- Implementation of action plans where KPIs are not being met.
- Evidence of quality assurance reporting for referral to vascular services.
- Local and national standard operating procedures and risk registers.
- Action plans for improvement in the referral to vascular services and follow up processes.
- Local and national standard operating procedures.
- Evidence of appropriate information sharing, for example KIS and electronic patient record.

Standard 9: Treatment

Standard statement

Surgical treatment of an AAA is safe, effective and person centred.

Rationale

Treatment of a large screen-detected AAA involves elective surgical repair. Where clinically appropriate, elective AAA repair (either open repair surgery or endovascular repair) is the most effective treatment option to prevent rupture.^{55, 56}

AAA screening is different from other screening programmes in that the mortality of surgical treatment among eligible men is significant. Evidence indicates the mortality rate is around 4% for open repair surgery and 1% for endovascular repair.⁵⁴ The success of the programme is therefore dependent on low mortality during and after surgery. This can only be achieved when units can consistently demonstrate positive patient outcomes. Evidence suggests there is an increase in the number of people surviving AAA repair with increasing volume of procedures per unit.^{53, 57}

A safe, effective and person-centred vascular service is underpinned by multidisciplinary input from a range of professionals including vascular surgeons, specialist vascular nurses, interventional radiologists, anaesthetists and support services as well as high quality and comprehensive facilities.

A preoperative multidisciplinary team assessment is required to determine suitability for elective surgical intervention.⁵⁸ Factors including aneurysm size and morphology, patient age, life expectancy and fitness for surgery are considered.

High quality and person-centred information and guidance from staff to support informed decision making enables and supports men to make a personal decision about which surgical intervention and treatment option is right for them.⁵⁶

Men who decline treatment or are unsuitable for surgery may benefit from a plan of care to support person-centred communication and decision-making.

The national AAA screening programme has set performance thresholds to monitor surgical treatment of men with a screen-detected AAA.³⁷

Criteria

- 9.1** NHS boards ensure that open repair surgery and endovascular repair are available treatment options for all eligible men.
- 9.2** NHS boards ensure vascular units undertaking surgical repair of a screen-detected AAA have:
- 24-hour access to vascular services
 - radiological imaging intervention
 - a level 3 critical care facility, and
 - a minimum volume of surgical AAA repairs in screen-detected and non-screen-detected individuals, in line with national guidance.⁵³
- 9.3** All men being considered for elective AAA repair:
- have access to appropriate clinical investigations
 - are reviewed by an anaesthetist experienced in vascular surgery
 - have their case discussed and recorded at a local multidisciplinary team meeting, and
 - have access to further clinical assessments and investigations, where required.
- 9.4** All men are fully informed, supported and involved in decisions about their treatment, through:
- accurate information about the benefits and risks of elective AAA surgery at a suitable time and in a format and language that is appropriate to their needs
 - shared decision making on surgical treatment options, in a format that is right for them, and
 - signposting and support to access third sector organisations, support groups and local services.
- 9.5** Surgical treatment of an AAA is:
- undertaken in line with national guidance and professional standards,^{7, 21, 53, 59} and
 - carried out within nationally agreed timeframes.

9.6 Men considered unsuitable for AAA surgery or those who decline surgical repair are supported to have a plan of care, where appropriate. This plan:

- is developed, agreed and shared with the person, and with their family and carer, where appropriate
- details support to optimise suitability for AAA surgery (where relevant)
- identifies an individual's wishes in the event of an AAA rupture, where appropriate, and
- is shared with their GP practice and relevant health professionals.

9.7 NHS boards monitor, report and review surgical treatment of men with a screen-detected AAA in line with the KPIs for the national AAA screening programme.³⁷

What does the standard mean for men participating in AAA screening?
<p>Men:</p> <ul style="list-style-type: none"> • have confidence that staff and services work together to ensure that they experience safe, effective and person-centred treatment services • have a comprehensive assessment to determine their suitability for surgical intervention, and • are fully involved in decisions about their treatment.
What does the standard mean for staff?
<p>Staff:</p> <ul style="list-style-type: none"> • work in partnership with men (and their family and carers, where appropriate), professionals and services to plan their care and support • can demonstrate knowledge and skills appropriate to their roles and responsibilities • support men through the AAA surgical treatment pathway, in line with their role and responsibilities, and • are supported to attend regular training, CPD and assessment.
What does the standard mean for organisations?
<p>NHS boards ensure:</p> <ul style="list-style-type: none"> • there are safe, effective and person-centred treatment services for men, that meet their needs, and • staff are appropriately trained for their role. <p>NHS boards:</p> <ul style="list-style-type: none"> • monitor the volume of surgical treatments for an AAA, in line with national guidance, and • monitor, report and review surgical treatment in line with the KPIs for the national AAA screening programme.
Practical examples of evidence of achievement <i>(NOTE: this list is not exhaustive)</i>
<ul style="list-style-type: none"> • Implementation of Realistic Medicine 'The Five Questions'.⁶⁰

- Availability of information for people about DVLA AAA reporting, including leaflets and signposting to appropriate online resources.
- Data demonstrating achievement of KPIs and implementation of action plans where KPIs are not being met.
- Evidence of multidisciplinary team input to surgical assessments.
- Evidence of competency frameworks, appropriate to role and workplace setting.
- Evidence of pathways with access to appropriate clinical services, for example access to cardiopulmonary exercise testing.
- Anticipatory Care Plans.⁶¹
- Evaluation of training needs and training programmes.
- Evidence of appropriate information sharing, for example KIS and electronic patient record.
- Evidence of support provided to people with additional communication needs, for example interpretation and translation services, support for disabled people and people with health literacy needs.
- Evidence of signposting to mental health and wellbeing support, for example computerised cognitive behavioural therapy (cCBT).⁶²
- Evidence of using feedback from an individual's experience to inform service improvements with action plans.

Standard 10: Postoperative outcomes

Standard statement

Postoperative outcomes of men who have had their screen-detected AAA surgically repaired are monitored.

Rationale

Early detection of a large AAA followed by appropriate surgical repair can improve a patient's postoperative outcomes and reduce the mortality associated with the risk of rupture. Postoperative mortality for men with a screen-detected AAA is lower than in those with AAAs detected incidentally.⁶³

Clinical care and patient outcomes are improved through local and national monitoring of surgical practice and clinical audit. In addition, data entry and analysis through the National Vascular Registry⁶⁴ allows vascular units to know where they are doing well, as well as highlighting areas they can improve to reduce mortality following elective surgery for an AAA.

The national AAA screening programme has set performance thresholds for 30-day postoperative mortality rates to monitor the outcomes for surgical treatment of an AAA.³⁷

Criteria

- 10.1** All vascular units have a process in place for local multidisciplinary review of postoperative patient outcomes and take action, in line with clinical governance arrangements.
- 10.2** All vascular units will submit their cases to the National Vascular Registry,⁶⁴ with appropriate action to support improvement in elective AAA repair.
- 10.3** NHS boards monitor, report and review the 30-day mortality rate following elective surgical AAA repair in line with the KPIs for the national AAA screening programme.³⁷

What does the standard mean for men participating in AAA screening?

Men who have had their screen-detected AAA surgically repaired have confidence that they achieve the best outcome possible for their personal circumstances.

What does the standard mean for staff?

Staff:

- understand the importance of monitoring and reviewing men with a screen-detected AAA who have undergone surgical repair
- are confident that there is robust monitoring and reviewing of surgical AAA repair postoperative outcomes, and
- undertake continued training, relevant to their role and responsibilities, in surgical AAA repair to improve their skills and competencies.

What does the standard mean for organisations?

NHS boards:

- ensure vascular units submit their cases to the National Vascular Registry, and
- monitor, report and review the postoperative outcomes in line with the KPIs for the national AAA screening programme.

Practical examples of evidence of achievement *(NOTE: this list is not exhaustive)*

- Local AAA screening audit.
- Mortality and morbidity meetings.
- Alerts to NSD, for example on governance issues.
- Evidence of data submitted to the National Vascular Registry.
- Active participation in national forums, for example, Scottish Vascular Audit meeting and AAA Screening Vascular Clinical Leads Group.
- Evidence of improvement work, including action plans, data collection and review of data (for example person-reported outcomes and experience measures) and national benchmarking.

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Appendix 1: Development of the AAA screening standards

The AAA standards have been informed by current evidence, best practice recommendations and developed by group consensus.

Evidence base

A systematic review of the literature was carried out using an explicit search strategy devised by a Knowledge Management Team Evidence and Information Scientist. From Healthcare Improvement Scotland. Databases searched included Cochrane Library, Embase and Medline. The year covered was 2011-2019. Internet searches were carried out on various websites including The British Medical Journal (BMJ), Dynamed, National Institute for Health and Care Excellence (NICE) and international websites. The results were summarised and presented to the standards development group. The main searches were supplemented by material identified by individual members of the development group.

At the start of the standards development process, a literature search for qualitative and quantitative studies that addressed patient issues of relevance to AAA screening was carried out. Databases searched included Cochrane Library, Embase and Medline. This evidence was also used to inform the EQIA and Communication and Engagement Strategy for the standards.

Development activities

To ensure each standard is underpinned with the views and expectations of service staff, third sector representatives, and the public in relation to AAA screening information has been gathered from a number of activities, including:

- a scoping meeting with the AAA Screening Governance and Quality Assurance Reference Group in June 2019, and
- two development group meetings in October and November 2019.

A standards development group, chaired by Mr Zahid Raza, Consultant Vascular Surgeon, NHS Lothian was convened in October 2019 to consider the evidence and to help identify key themes for standards development.

The AAA screening standards development project was paused in March 2020 in light of the COVID-19 pandemic. The project remobilised in February 2021.

Membership of the development group is set out in [Appendix 2](#).

Quality assurance

All development group members were responsible for advising on the professional aspects of the standards. Clinical members of the development group were also responsible for advising on clinical aspects of the work. The chair was assigned lead responsibility for providing formal clinical assurance and sign-off on the technical and

professional validity and acceptability of any reports or recommendations from the group.

All development group members made a declaration of interest at the beginning stages of the project. They also reviewed and agreed to the development group's terms of reference. More details are available on request from:

his.standardsandindicators@nhs.scot

Healthcare Improvement Scotland also reviewed the standards document as a final quality assurance check. This ensures that:

- the standards are developed according to agreed Healthcare Improvement Scotland methodologies
- the standards document addresses the areas to be covered within the agreed scope, and
- any risk of bias in the standards development process as a whole is minimised.

For more information about Healthcare Improvement Scotland's role, direction and priorities, please visit: www.healthcareimprovementscotland.org/

Appendix 2: Membership of the AAA screening standards development group

Zahid Raza (<i>Chair</i>)	Consultant Vascular Surgeon, NHS Lothian
Euan Black	Vascular Anaesthetist, NHS Greater Glasgow & Clyde
Bianca Bond	Clinical Vascular Scientist, NHS Greater Glasgow & Clyde
Julie Cavanagh (until March 2020)	Board Coordinator, NHS Tayside
Elaine Figgins (until April 2020)	Associate Director of Allied Health, NHS Education for Scotland
Richard Forsyth	Health Systems Insight Manager – Scotland, British Heart Foundation
Karen Gallagher	Clinical Vascular Scientist, NHS Lothian
Nuala Healey	Programme Lead, Public Health Scotland
Martin Hennessey	Interventional Radiologist, NHS Greater Glasgow & Clyde
Russell Jamieson	Consultant Vascular Surgeon, NHS Lothian
John Keaney	Acute Medical Director, NHS Lanarkshire
Bruce Knight	Public representative
Josie Murray (until March 2020)	Board Coordinator, NHS Fife
Brian O’Suilleabhain	Board Coordinator, NHS Ayrshire and Arran
Melissa Page (until March 2020)	Acting AAA Lead Screener, NHS Lanarkshire
David Pearson	Service Manager, NHS Lothian
Menelaos Philippou	Interventional Radiologist, NHS Greater Glasgow & Clyde
Karen Ritchie (until January 2021)	Deputy Director of Evidence, Healthcare Improvement Scotland
Tamim Siddiqui	Consultant Vascular and Endovascular Surgeon, NHS Lanarkshire
Judith Tait	Principal Information Analyst, Information Services Division
Karen Thomson	Lead Sonographer, NHS Ayrshire and Arran
Garrick Wagner	Senior Programme Manager, NHS National Services Division
Maggie Watts	Director of Public Health, NHS Western Isles

We would also like to thank Ruth Flynn from Public Health Scotland and Nigel Calvert from NHS Dumfries and Galloway for their support finalising the standards.

The standards development group was supported by the following members of Healthcare Improvement Scotland’s Standards and Indicators Team:

Claire Henry	Administrative Officer (until March 2020)
Angela Hislop	Administrative Officer (from March 2021)
Wendy McDougall	Project Officer (until April 2020)
Rebecca McGuire	Project Officer (from January 2021)
Donna O’Rourke	Programme Manager

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