Abdominal Aortic Aneurysm (AAA) Screening

Draft Standards

January 2020
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 AAA screening will experience the intended benefits of these standards in a fair and equitable way. A copy of the EQIA is published on our website.

Healthcare Improvement Scotland is committed to ensuring that our standards are up to date, fit for purpose, and informed by quality evidence and best practice. We consistently assess the validity of our standards documents, 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 hcis.standardsandindicators@nhs.net to notify us of any updates that the AAA screening standards project team may need to consider.

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www.healthcareimprovementscotland.org
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Introduction

Abdominal aortic aneurysm (AAA)

An 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 1.5cm to 2cm wide.1

AAAs are usually asymptomatic, meaning that the person is unaware they have an aneurysm. If an aneurysm remains undetected it can grow 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 service 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.

Routine AAA screening is offered to eligible men during the year they are aged 65. Women and men under 65 are not routinely screened for an AAA because most ruptured AAAs occur in older men aged over 65.1, 3 AAAs are estimated to be present in almost 5% of the male population of Scotland aged 65 to 74.4 It is projected that screening for an AAA in this group, by ultrasound scanning, reduces death from a ruptured AAA by 50%.5
Men are six times more likely to have an AAA than women. The incidence of AAA in women is less than 1%. There is currently no evidence to suggest screening women and men under 65 would deliver major benefits as part of a population-based screening programme.

The size of an AAA is the best predictor for AAA rupture. The threshold for AAA repair is based on the diameter of the AAA. AAAs less than 5.5cm in diameter are managed conservatively through surveillance scanning as evidence indicates that there is little benefit in early elective surgical repair. Men with an AAA 5.5cm or more in diameter, and deemed fit for surgery, are considered for 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 what treatment options are right for them.

**AAA screening process**

AAA screening is a single appointment that involves an ultrasound scan of the abdomen. A practitioner will measure 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 3cm) and are discharged from the screening programme. Men detected as having a:

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

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

**AAA screening eligibility**

Men 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, 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.
Health inequalities
Health inequalities occur across the social gradient 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.

Health inequalities can manifest at any point in the AAA screening pathway and at national, regional and local levels. There are important roles 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 is essential to ensuring the efficacy of the AAA screening programme.

Organisations involved in the AAA screening programme

The national AAA screening programme

The national AAA screening programme has an established and well-defined internal quality assurance (IQA) structure to assure the quality of AAA screening in Scotland. IQA for a screening programme is essential in order to minimise harm and maximise benefits.

The national AAA screening programme governance structure

The national AAA screening programme has developed key performance indicators (KPIs) which are used to monitor and evaluate the quality and performance of the 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.11

The KPIs are reported in the annual Scottish Abdominal Aortic Aneurysm Screening Programme Statistics report published by Information Services Division.12
Territorial NHS boards

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

- NHS Lothian and NHS Borders collaborative
- NHS Greater Glasgow and Clyde
- 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 (IT) system to manage the call and recall of men for AAA screening.

Individuals with a screen-detected AAA that meets the screening programme’s size 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 test and any subsequent treatment.

National Services Division (NSD)

NSD has responsibility for the national coordination of the Scottish AAA screening programme. This involves coordinating groups central to the safe and effective delivery of AAA screening to discuss and agree protocols and pathways. These groups include people who commission screening in NHS boards, programme clinicians, public health experts and staff that support the programme.

Information Services Division (ISD)

ISD supports the national AAA screening programme to monitor performance and informs programme decision-making through providing data analyses, including key performance indicator reports.

NHS Health Scotland

NHS Health Scotland works closely with NSD and territorial NHS board coordinators to support professionals and the public with resources promoting informed choice within the national screening programmes. NHS Health Scotland aim to make all public information as accessible as possible and facilitate opportunities for key stakeholders to work together to address the barriers to screening.
Public Health Scotland (PHS), a new national public health agency, will come into being on 1 April 2020. National leadership for health improvement will pass from NHS Health Scotland to Public Health Scotland.

Healthcare Improvement Scotland (HIS)
HIS 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 (SGHD)
The SGHD provide 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)\(^\text{14}\) 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:

- Realising Realistic Medicine\(^\text{15}\)
- Health and Social Care Standards\(^\text{16}\)
- National Health and Wellbeing Outcomes Framework\(^\text{17}\)
- Organisational Duty of Candour guidance\(^\text{18}\)
- Adults with Incapacity (Scotland) Act 2000\(^\text{19}\)
- Healthcare Improvement Scotland learning from adverse events framework\(^\text{20}\)
- 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 delivered using the HIS quality of care approach and the quality framework. This approach specifies how HIS 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 HIS website.

Scope of the standards

These standards map to the AAA screening programme patient 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
- 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 other special health boards, where appropriate, and have different implications for each service.

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.
Format of the standards

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.

Within the standards, all criteria are considered ‘essential’ or ‘required’ in order to demonstrate the standard has been met. NHS boards are responsible for implementing the AAA screening standards to assess quality and support improvement in AAA screening services. The detailed implementation of these standards is for local determination.

More information about the development of the standards is set out in Appendix 1.

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 transmen who change the gender of their CHI number to male, transwomen who do not change their CHI number to female, and 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.

‘Failsafe’ refers to processes designed to ensure that when something goes wrong there is a mechanism to identify what is going wrong, 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.

The term ‘screening service’ is used to refer to the full pathway, from the identification of those eligible for AAA screening through to AAA treatment services.
How to participate in the consultation process

We welcome feedback on the draft AAA screening standards and will review every comment received. We use several different methods of consultation during the development of the draft standards, including:

- wide circulation of the draft standards to relevant professional groups, health service staff, social care staff, voluntary sector organisations and individuals
- targeted engagement with the public, including people who use services and carers and service providers (including staff at the point of care), and an online survey tool https://www.smartsurvey.co.uk/s/CXVHS/.

For more information, please contact:

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Submitting your comments

Responses to the draft standards should be submitted using our online survey tool https://www.smartsurvey.co.uk/s/CXVHS/. The consultation closes on 9 March 2020. If you would like to submit your comments using a different format, please contact the standards and indicators team using the email address provided above.

Consultation feedback

At the end of the consultation period, all comments will be collated and the standards development group will respond to each comment received on the draft standards. The response will explain how the comments were taken into account in producing the final standards.

A summary of the responses to the consultation will be made available on the HIS website www.healthcareimprovementscotland.org and from Wendy McDougall, Project Officer.

The final AAA screening standards will be published by June 2020.
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 decision-making and to reduce health inequalities in AAA screening.

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: **Outcomes**
Post-operative 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 an AAA rupture. Surveillance, management and treatment, where appropriate, of a screen-detected AAA significantly reduces the chance of rupture and a life threatening outcome.

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 coordinators 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 nine local AAA screening programmes in Scotland (some of which are collaborative groupings of territorial NHS boards). Each programme 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 appropriate to their role and responsibilities, including access to continued professional development (CPD).

Effective 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 groups. Many people among these groups are at a higher risk of having an AAA. Robust approaches to engaging with groups identified as least likely to attend for screening, with regular review, improves equity of opportunity to access and uptake AAA screening.
Criteria

1.1 NHS boards have a designated:

- public health lead with responsibility and accountability for the effective delivery and quality assurance 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
- AAA screening professional lead 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.

1.2 NHS boards ensure there are robust governance arrangements across the AAA screening programme, with clear lines of accountability, covering all aspects of the AAA screening pathway.

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 areas 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 multi-disciplinary 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 role and responsibilities
- use of national IT systems, consistent documentation and data collection to support benchmarking against quality outcomes and key performance indicators, 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, and
- active membership of the AAA screening Inequalities and Communications Group.

1.6 NHS boards ensure appropriate failsafe mechanisms are in place across all of the AAA screening pathway.

1.7 NHS boards have a clearly written, structured and rehearsed 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 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 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 action, in line with effective clinical governance.

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<th>What does the standard mean for men participating in AAA screening?</th>
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<td>- Men have confidence that:</td>
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<td>- their local AAA screening service has effective leadership and robust governance arrangements, and is committed to quality improvement, and</td>
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<td>- staff will work together to provide high quality and person-centred care, and their information will be shared appropriately.</td>
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<td>- Men are offered the opportunity to provide feedback on their experience.</td>
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<th>What does the standard mean for staff?</th>
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<td>- Staff are supported by designated lead professionals.</td>
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<td>- Staff have an understanding of:</td>
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<td>- governance arrangements in the AAA screening programme appropriate to their role</td>
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- 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 coordinated, 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.
- Evidence of annual rehearsal of incident management procedures.
- 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.
- Local and national standard operating procedures.
- Demonstration of a timely and person-centred approach for men to access AAA screening, surveillance scanning, and treatment services.
- 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 assessments (HIIA)28 and audit of engagement with seldom heard groups, with action plans to address health inequalities in AAA screening.

• 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.

• 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 decision-making and to reduce health inequalities in AAA screening.

**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.²⁹

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 NHS Health Scotland’s accessible information policy³⁰
- 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.³¹

Men (and their family and carers, where appropriate) are supported to have enough knowledge, understanding, skills and confidence to use this information to make decisions about their care.³², ³³ Strategies to improve health literacy are important empowerment tools which have the potential to reduce health inequalities 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 needs. 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
- 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 with signposting to formats and languages appropriate to their needs, where required.

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 and undertake the screening scan test are made aware of how to make a further screening appointment if their circumstances or decision changes.

2.5 NHS boards commit to reducing health inequalities and addressing barriers to accessing and attending for AAA screening by participating in a national forum for sharing good practice.

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<th>What does the standard mean for men participating in AAA screening?</th>
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<tr>
<td>• Men:</td>
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<tr>
<td>- 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</td>
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<tr>
<td>- are signposted to information in alternative formats and languages appropriate to their needs</td>
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<tr>
<td>- are given information on their screening scan test results, the options available to them, and any implications this may have on their daily lives</td>
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<tr>
<td>- 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</td>
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<tr>
<td>- are given the opportunity at their screening appointment to discuss any aspect of the AAA screening process and raise any questions or concerns.</td>
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<td>• Staff:</td>
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<td>- have current information and guidance in relation to AAA screening</td>
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<td>- confidently offer a responsive and person-centred service with appropriate information for all men participating in AAA screening, and</td>
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<tr>
<td>- provide information to enable men to reach informed decisions, where required, about whether or not to participate in AAA screening.</td>
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### What does the standard mean for organisations?

- NHS boards have systems and processes in place to ensure:
  - the availability of appropriate and timely information,
  - access to support resources, and
  - a responsive and person-centred AAA screening service.

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

- Evidence of nationally agreed information promptly provided in alternative formats and languages (for example easy-read versions and British Sign Language versions).
- Documentation relating to decision-making and informed choice for 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.
- Reports or minutes from good practice forum.
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 (CHI) system (whether registered or non-registered with a GP) and included within the national AAA screening call-recall system. As part of the invitation, men receive details of their screening appointment. This invitation includes relevant nationally agreed information.

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 has set key performance indicators for the AAA screening invitation to measure performance and act as a driver for continuous improvement.\(^{12}\)

**Criteria**

3.1 All eligible men are routinely invited for AAA screening during the year they are aged 65.

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 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 assures 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.

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 key performance indicators for the national AAA screening programme.

<table>
<thead>
<tr>
<th>What does the standard mean for men participating in AAA screening?</th>
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<tr>
<td><strong>Men:</strong></td>
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<tr>
<td>- are invited to attend for AAA screening in the year they are aged 65</td>
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<tr>
<td>- are provided with opportunities to attend for AAA screening that takes into account their personal circumstances and where they live, and</td>
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<tr>
<td>- are assured there is a robust AAA screening call-recall system.</td>
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<th>What does the standard mean for staff?</th>
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<tr>
<td><strong>Staff</strong> are trained and demonstrate awareness and knowledge, relevant to their role and responsibilities, of:</td>
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<tr>
<td>- the AAA screening programme eligibility criteria</td>
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<tr>
<td>- the call-recall system and pathways, and</td>
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<td>- failsafe processes.</td>
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</table>
### 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 for non-compliance
  - monitor training and competencies of staff, and
  - monitor, report and review the call-recall system in line with the key performance indicators 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.
- Regular user acceptance testing.
- Evidence of actions to address quality issues within the call-recall function.
- Risk registers with mitigating actions.
- Key performance indicator 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 and primary care services.
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.\(^{35}\)

The AAA screening programme in Scotland has historically had high uptake rates. Evidence however indicates that people from seldom heard groups are less likely to attend and participate in AAA screening, especially men experiencing economic disadvantage who are most likely to have an AAA.\(^{12, 25, 36}\)

An inclusive AAA screening programme is underpinned by:

- identifying and actively engaging with seldom heard groups of eligible men less likely to attend for screening (for example, people with learning and physical disabilities, the 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.\(^{12}\)

**Criteria**

4.1 NHS boards maximise uptake of AAA screening in eligible men, within the principles of informed choice, by:

- ensuring they are offered opportunities to attend for screening, including providing men 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 key performance indicators for the national AAA screening programme.

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<td>• Staff:</td>
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<tr>
<td>- are supported to maximise AAA screening attendance, relevant to their role and responsibilities</td>
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<tr>
<td>- understand and implement approaches to addressing health inequalities within the AAA screening programme, relevant to their role and responsibilities, and</td>
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<tr>
<td>- understand their role in supporting their service achieve the uptake rates set out by the national AAA screening programme.</td>
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<td>• NHS boards:</td>
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<td>- analyse local uptake data to identify groups resident within their board area who may be less likely to participate in AAA screening</td>
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<tr>
<td>- 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</td>
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<tr>
<td>- work in partnership with other service providers to increase participation levels among groups with low attendance</td>
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<tr>
<td>- share local learning about approaches to health inequalities to support the efficacy of the national AAA screening programme, and</td>
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<tr>
<td>- monitor, report and review their AAA screening uptake rates in line with the key performance indicators for the national AAA screening programme.</td>
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<th>Practical examples of evidence of achievement (NOTE: this list is not exhaustive)</th>
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<tr>
<td>• Targeted support to identify men with associated risks factors as being more likely to have an AAA.</td>
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<tr>
<td>• Needs assessment and audit data on uptake of AAA screening.</td>
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- Action plans to demonstrate how 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, Bridging the Gap project.\textsuperscript{37}
- Evidence of support provided to people with additional communication needs, for example, people living with a learning difficulty or disability.
Standard 5: Primary screening

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

Rationale
Screening for an AAA involves an abdominal ultrasound scan (sonogram) of an individual's abdominal aorta. A practitioner measures the diameter of the aorta to determine its size.\textsuperscript{22}

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

All aspects of the 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.\textsuperscript{38} 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 smoking\textsuperscript{39} and high blood pressure) along with advice on lifestyle (for example, smoking cessation,\textsuperscript{40, 41}) benefits 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 to all screening participants. GP practices are notified where 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.\textsuperscript{12}

Criteria

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

5.2 All AAA screening scan images are taken in line with current best practice and national guidance.
5.3 All AAA 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 to AAA screening
- identifying the specific needs of different groups to access and attend for AAA screening, 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, on:

- audited AAA screening images that do not meet national requirements, and
- men whose aorta cannot be visualised at primary screening.

5.7 NHS boards ensure that clinical staff involved in AAA screening:

- hold a valid certificate of competence, from a Consortium for the Accreditation of Sonographic Education (CASE) accredited course, to practice AAA screening
- are trained, skilled, knowledgeable and competent in achieving a successful ultrasound of the abdominal aorta, in line with the AAA Screening Competency Framework
- are trained to provide 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 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.

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 followed by letter, 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 key performance indicators for the national AAA screening programme.

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

**Men:**
- experience a safe, high quality and person-centred primary AAA screening service
- receive the results of their AAA screening scan, in person, at the screening appointment
- know what the result of the screening scans 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 AAA screening scan.

### What does the standard mean for staff?

**Staff:**
- 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?

**NHS boards ensure:**
- processes are in place to ensure AAA screening is carried out in line with national protocols and guidance
- equipment for AAA screening is safe and effective, and
- screening is carried out by appropriately accredited staff.

**NHS boards:**
- 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 key performance indicators 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.\(^{42}\)
- Scottish AAA Screening Programme Standard Operating Procedures.
- 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 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 and NHS Education for Scotland’s Map of Behaviour Change Training Programme\(^ {44}\) and practical workshops for screening practitioners.
- Evidence of appropriate information sharing, for example, Key Information Summary (KIS) and TrakCare.
- Evidence of support provided to people with additional communication needs, for example, people with health literacy needs and people living with a learning difficulty or disability.
- 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 AAAs are not deemed immediately life-threatening, but warrant monitoring through regular scanning\(^\text{41}\). Evidence indicates there is no reduction in the rate of AAA related deaths in men that have early elective surgical repair\(^\text{8, 41, 45}\).

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. Evidence suggests that, at this stage, the risk of rupture outweighs any operative risk for some men.

All men are guided throughout the surveillance process. Information on the risk factors for an AAA, for example smoking\(^\text{39}\) and high blood pressure, along with advice on lifestyle including smoking cessation is provided to men at surveillance scan, where appropriate.\(^\text{40, 41}\) Lifestyle changes to modifiable risk factors in men attending for surveillance scanning can optimise care, including those men who go on to have elective surgical repair.

Communication of results is an essential part of the AAA screening programme.

GP practices are notified of individuals who attend AAA 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.\(^\text{12}\).
**Criteria**

6.1 The AAA surveillance scan process is carried out in line with national guidance and protocols.

6.2 All AAA screening scan images are taken in line with current best practice and national guidance.

6.3 All AAA screening equipment is maintained, tested and used in line with national guidance and regulations.

6.4 NHS boards ensure that AAA 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 AAA surveillance scanning comply with Criterion 5.7.

6.7 NHS boards follow national guidance to support men who do not attend their AAA 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 AAA surveillance 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 key performance indicators for the national AAA screening programme.

---

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

- **Men:**
  - experience a safe, high quality and person-centred AAA surveillance scanning service
  - are reassured about the purpose of surveillance, and
  - 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?**

- **Staff:**
  - 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?

- NHS boards ensure:
  - processes are in place to ensure AAA surveillance scanning is carried out in line with national protocols and guidance
  - equipment for AAA surveillance scanning is safe and effective, and
  - AAA surveillance scanning is carried out by appropriately trained staff.

- NHS boards:
  - 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 key performance indicators 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.
- Compliance with the AAA screening programme Competency Framework for the Screening Workforce.
- 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.
- 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.
- Evidence of signposting to appropriate fitness and positive lifestyle programmes.
- Evidence of appropriate information sharing, for example, Key Information Summary (KIS) and TrakCare.
- Evidence of support provided to people with additional communication needs, for example, people with health literacy needs and people living with a learning difficulty or disability.
- 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 relies on the skill of the practitioner to detect the aorta and measure its diameter\(^{47}\), human factors and quality of the scanner\(^ {48}\).

Trained and competent AAA screening practitioners are supported by a professional lead 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\(^ {12}\).

**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 to:

- improve measurement for educational and service improvement purposes
- comply with duty of candour regulations and responsibilities, and
- provide image review results for men who request it.

7.4 NHS boards monitor, report and review the quality of the screening process in line with the key performance indicators 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 in AAA screening.

What does the standard mean for staff?

- Staff:
  - 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:
  - ensure processes are in place and are monitored for compliance with current and national guidance
  - ensure recall for repeat AAA screening is monitored and minimise the need to recall, and
  - monitor, report and review the screening image quality in line with the key performance indicators for the national AAA screening programme.

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

- Compliance with national guidance and best practice, for example the AAA screening programme Best Practice for Image Quality Guidance.
- 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.\(^5\) Men with a screen-detected AAA, and whose AAA size meets the AAA screening programme’s criteria for surgical intervention are referred to an accredited vascular service for investigation and consideration for treatment in line with nationally agreed timeframes.\(^5\) Appropriate and timely referral improves health and wellbeing outcomes. Men are fully informed about the referral process and provided with nationally agreed information with opportunities to ask questions.

The national AAA screening programme has set key performance indicators to monitor referral to vascular services.\(^1\)

Criteria

8.1 All men with an aorta \(\geq 5.5\)cm are referred, within nationally agreed timeframes, to an accredited vascular service to discuss treatment and management options.

8.2 NHS boards follow up on 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 key performance indicators for the national AAA screening programme.

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

- Eligible 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 this 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 on individuals that have not attended their vascular service outpatient appointment, and
  - monitor, report and review surgical referral in line with the key performance indicators for the national AAA screening programme.

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

- Data demonstrating achievement of key performance indicators.
- Implementation of action plans where key performance indicators 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, Key Information Summary (KIS) and TrakCare.
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 (open repair surgery or endovascular repair) is the most effective treatment option to prevent rupture.\(^5_2\)

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.\(^5_3\) The success of the programme is therefore dependent on low operative mortality. This can only be achieved when units undertake a significant number of procedures per year. Evidence suggests there is an increase in survival of people undergoing AAA repair with increasing volume of procedures per unit.\(^5_1, 5_4\)

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 pre-operative multidisciplinary team assessment is required to determine suitability for elective surgical intervention.\(^5_5\) Factors including aneurysm size and morphology, patient age, life expectancy, fitness for surgery, aneurysm related mortality and operative mortality 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.\(^1_5\)

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 key performance indicators to monitor surgical treatment of men with a screen-detected AAA.\(^1_2\)

**Criteria**

- **9.1** NHS boards ensure that open repair surgery and endovascular repair are available treatment options for 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
9.3 All men being considered for suitability 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 communication needs
- shared decision-making on surgical treatment options, 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, 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 applicable
- details support to optimise fitness 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 key performance indicators for the national AAA screening programme.

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

- Men:
  - 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?**

- **Staff:**
  - 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, and
  - are supported to attend regular training, CPD and assessment.

**What does the standard mean for organisations?**

- **NHS boards ensure:**
  - there are safe, effective and person-centred treatment services for men that meet their needs, and
  - staff are appropriately trained for their role.

- **NHS boards:**
  - 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 key performance indicators for the national AAA screening programme.

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

- Implementation of Realistic Medicine ‘The Five Questions’.  
- Availability of information for people about DVLA AAA reporting, including leaflets and signposting to appropriate online resources.
- Data demonstrating achievement of key performance indicators.
- Implementation of action plans where key performance indicators 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 Plan (ACP).
- Evaluation of training needs and training programmes.
- Evidence of appropriate information sharing, for example, Key Information Summary (KIS) and TrakCare.
- Evidence of support provided to people with additional communication needs, for example, interpretation and translation services, support for people with health literacy needs and people living with a learning difficulty or disability.
- Evidence of using feedback from an individual’s experience to inform service improvements with action plans.
Standard 10: Outcomes

**Standard statement**
Post-operative outcomes of men who have had their screen-detected AAA surgically repaired are monitored.

**Rationale**
Early detection of a large AAA with appropriate surgical repair can improve a patient's post-operative outcomes and the mortality associated with the risk of rupture. Post-operative mortality for men with a screen-detected AAA is lower than in those with AAAs detected incidentally.\(^{59}\)

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 Registry\(^{60}\) allows vascular units to know where they are doing well, as well as highlighting areas they can improve to ultimately reduce mortality following elective surgery for an AAA.

The national AAA screening programme has set performance indicators for 30 day post-operative mortality rates to monitor the outcomes for surgical treatment of an AAA.\(^{12}\)

**Criteria**

| 10.1 | All vascular units have a process in place for local multi-disciplinary review of post-operative 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, with appropriate action to ensure satisfactory outcomes for individuals undergoing 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 key performance indicators for the national AAA screening programme.\(^{12}\) |

**What does the standard mean for men participating in AAA screening?**
- Men have confidence that NHS boards monitor post-operative outcomes of men who have had their screen-detected AAA surgically repaired.

**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 post-operative 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 post-operative outcomes in line with the key performance indicators for the national AAA screening programme.

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

- Public Health Screening Unit audit of AAA screening.
- Mortality and morbidity meetings.
- Alerts to National Services Division, for example, 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.
References


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 HIS Knowledge Management Team Evidence and Information Scientist. 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 project 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.

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: hcis.standardsandindicators@nhs.net

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/drivingimprovement.aspx
### Appendix 2: Membership of the AAA screening standards development group

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Organisation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zahid Raza (Chair)</td>
<td>Vascular Surgeon</td>
<td>NHS Lothian</td>
</tr>
<tr>
<td>Euan Black</td>
<td>Vascular Anaesthetist</td>
<td>NHS Greater Glasgow &amp; Clyde</td>
</tr>
<tr>
<td>Bianca Bond</td>
<td>Clinical Vascular Scientist</td>
<td>NHS Greater Glasgow &amp; Clyde</td>
</tr>
<tr>
<td>Julie Cavanagh</td>
<td>Board Coordinator</td>
<td>NHS Tayside</td>
</tr>
<tr>
<td>Elaine Figgins</td>
<td>Associate Director of Allied Health</td>
<td>NHS Education Scotland</td>
</tr>
<tr>
<td>Richard Forsyth</td>
<td>Health Services Engagement Lead</td>
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<tr>
<td>Karen Gallagher</td>
<td>Clinical Vascular Scientist</td>
<td>NHS Lothian</td>
</tr>
<tr>
<td>Nuala Healey</td>
<td>Health Improvement Programme Manager</td>
<td>NHS Health Scotland</td>
</tr>
<tr>
<td>Martin Hennessey</td>
<td>Interventional Radiologist</td>
<td>NHS Greater Glasgow &amp; Clyde</td>
</tr>
<tr>
<td>Russell Jamieson</td>
<td>Vascular Surgeon</td>
<td>NHS Lothian</td>
</tr>
<tr>
<td>John Keaney</td>
<td>Acute Medical Director</td>
<td>NHS Lanarkshire</td>
</tr>
<tr>
<td>Bruce Knight</td>
<td>Patient representative</td>
<td>N/A</td>
</tr>
<tr>
<td>Josie Murray</td>
<td>Board Coordinator</td>
<td>NHS Fife</td>
</tr>
<tr>
<td>Brian O’Suillebhain</td>
<td>Board Coordinator</td>
<td>NHS Ayrshire and Arran</td>
</tr>
<tr>
<td>Melissa Page</td>
<td>Acting AAA Lead Screener</td>
<td>NHS Lanarkshire</td>
</tr>
<tr>
<td>David Pearson</td>
<td>Project Support Manager</td>
<td>NHS Lothian</td>
</tr>
<tr>
<td>Menelaos Philippou</td>
<td>Interventional Radiologist</td>
<td>NHS Greater Glasgow &amp; Clyde</td>
</tr>
<tr>
<td>Karen Ritchie</td>
<td>Deputy Director of Evidence</td>
<td>Healthcare Improvement Scotland</td>
</tr>
</tbody>
</table>
The standards development group was supported by the following members of Healthcare Improvement Scotland’s Standards and Indicators Team:

- Claire Henry – Administrative Officer
- Wendy McDougall – Project Officer
- Donna O’Rourke – Programme Manager
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