Healthcare Improvement Scotland is committed to equality. National Services Division, who have undertaken an equality impact assessment on our behalf, have assessed it for likely impact on the eight equality protected characteristics defined by age, disability, gender reassignment, race/ethnicity, religion/faith, sex, sexual orientation and pregnancy and maternity (Equality Act 2010). To request a copy of the equality impact assessment report from National Services Division, please contact Belinda Henshaw (Programme Manager) 0131 275 6231 or email belinda.henshaw@nhs.net.

You can also request a copy of the equality impact assessment report in an alternate format, including Braille and community languages, from Louise MacLennan (Equality and Diversity Lead, NHS National Services Scotland) on 0131 275 6000 or email l.maclennan@nhs.net.
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1 About Healthcare Improvement Scotland

Healthcare Improvement Scotland was launched on 1 April 2011. This health body was created by the Public Services Reform (Scotland) Act 2010 and marks a change in the way the quality of healthcare across Scotland will be supported nationally.

Our vision
Our vision is to deliver excellence in improving the quality of the care and experience of every person in Scotland every time they access healthcare.

Our purpose
Our organisation has key responsibility to help NHSScotland and independent healthcare providers to:

- deliver high quality, evidence-based, safe, effective and person-centred care, and
- scrutinise services to provide public assurance about the quality and safety of that care.

What we do
We are building on work previously done by NHS Quality Improvement Scotland and the Care Commission, and our organisation includes:

- Healthcare Environment Inspectorate
- Scottish Health Council
- Scottish Health Technologies Group
- Scottish Intercollegiate Guidelines Network (SIGN), and
- Scottish Medicines Consortium.

Our work programme supports Scottish Government priorities, in particular those arising from the Healthcare Quality Strategy for NHSScotland. Our work encompasses all three areas of the integrated cycle of improvement with patient focus and public involvement at the heart of all that we do.

The integrated cycle of improvement involves:

- developing evidence-based advice, guidance and standards for effective clinical practice
- driving and supporting improvement of healthcare practice, and
- providing assurance about the quality and safety of healthcare through scrutiny and reporting on performance.
Integrated cycle of improvement

Visit our website: [www.healthcareimprovementscotland.org](http://www.healthcareimprovementscotland.org) for further information.
2 Introduction to the abdominal aortic aneurysm (AAA) screening programme

Screening programmes are a public health service which identify individuals at sufficient risk of a specific disorder, but who have no symptoms, to enable them to benefit from further investigation or preventative action. Screening tests are offered to help individuals make informed choices about their health and, in the instance of pregnancy and newborn screening, the health of their child. There is an ethical obligation on NHS services to ensure that the timely provision of diagnostic and treatment services meets the needs identified through the screening process.

Prior to accepting or declining the offer of a screening test, it is important that individuals receive information about the screening programme in which they have been invited to participate. While some screening tests have the potential to save lives, or improve quality of life by making possible the early diagnosis of a potentially serious condition, they are neither 100% sensitive nor 100% specific.

The abdominal aortic aneurysm screening programme

An abdominal aortic aneurysm (AAA) is an increase in the diameter of the abdominal aorta greater than or equal to 30 mm. The aneurysm gradually enlarges over time and when the diameter is greater than or equal to 55 mm there is a significant risk of the aorta rupturing. The risk of rupture increases with aneurysm size.

Abdominal aortic aneurysms are approximately six times more common in men than women and are strongly related to increasing age, with most aneurysms found in men aged over 65 years.

The prevalence of AAA gradually increases over time and approximately 5% of men in Scotland aged between 65 and 74 years have the condition, with data indicating:

- 71% of cases have a small aneurysm (between 30 and 44 mm)
- 17% of cases have a medium aneurysm (between 45 and 54 mm), and
- 12% of cases have a large aneurysm (greater than or equal to 55 mm).

When an aneurysm ruptures less than half of patients will reach hospital alive and even when an operation is possible, mortality is high, meaning the overall chance of death from rupture is as high as 85%.

Service delivery

The proposed delivery of the Scottish AAA screening service will be aligned to the UK National Screening Committee recommendations. A national screening programme, with screening centres, which in turn will link with appropriate NHS boards (and where appropriate collaboratives) will be established. Details of the NHS boards/collaboratives are provided in Appendix 3. The screening programme will provide ultrasound screening of the abdominal aorta for men aged 65 years and over.
3 Development of the clinical standards for the AAA screening programme

The development of the clinical standards for the AAA screening programme builds on the collaborative work between NHS Quality Improvement Scotland (now Healthcare Improvement Scotland) and National Services Division for the introduction of a national screening programme for AAA. The programme involves a single screening ultrasound scan for 65 year old men, in line with recommendations from the UK National Screening Committee.

The option to self-refer into the programme will be available to all men aged 66 years and over, regardless of race and ethnicity, religion or belief, disability and sexual orientation.

The AAA screening programme short-life working group was convened to develop evidence-based standards and a self-evaluation tool. These have been aligned to National Service Division’s key performance indicators for AAA, the Scottish Government’s Healthcare Quality Strategy for NHSScotland 2010 and A Participation Standard for the NHS in Scotland, published by the Scottish Health Council. The standards and self-evaluation tool will quality assure AAA screening services in NHSScotland.

For information, details of the key performance indicators for the screening programme are provided in Appendix 3 and membership of the short-life working group in Appendix 4.

Scope of the standards for the AAA screening programme

These standards map to the AAA screening programme patient pathway. They incorporate key areas in line with existing UK National Screening Committee quality standards and service objectives, which include:

- reducing the mortality rate associated with the risk of aneurysm rupture in men aged 65 years and older
- shifting the balance of care from reactive emergency management of rupture to elective management through early diagnosis
- providing a high quality screening programme to all eligible men in Scotland, and
- ensuring the effective co-ordination of AAA screening activities in Scotland.

The Healthcare Improvement Scotland standards for the AAA screening programme cover the following areas:

- service provision and multidisciplinary care
- call-recall and failsafe procedures
- the AAA screening programme
- surveillance screening
- vascular services, and
- surgical management.

Each standard criterion is assigned a performance level. Some criteria are essential in that it is expected that they will be met wherever a service is provided. Other criteria are desirable in that they are being met in some parts of the service, and demonstrate increasing levels of quality, which other providers of a similar service should strive to achieve.
Consultation

We approached professional bodies and organisations (such as The Scottish Practice Nurses Association and the REACH Community Health Project) and healthcare professionals involved in the delivery of AAA screening services. All interested parties were encouraged to provide feedback using a variety of media:

- the NHS Quality Improvement Scotland website
- the NHS Quality Improvement Scotland AAA screening programme community site
- the National Services Division AAA screening programme website
- an NHS Quality Improvement Scotland dedicated email address and telephone line, and
- a feedback form provided in the distributed draft standards.

In addition, four focus groups were held. The sessions included men from ‘seldom heard’ groups, such as participants with learning disabilities and associated nursing staff. These sessions concentrated on the person-centred standards, such as provision of information and support to men who will be invited to participate in the screening programme.

Consultation feedback

Comments have been received from a variety of sources, including:

- five NHS boards
- the Society and College of Radiographers
- NHS board screening co-ordinators, and
- four focus groups.

Finalising the standards

NHS Quality Improvement Scotland received an encouraging response to the draft standards. All feedback collected throughout the consultation period was considered by the short-life working group to produce the final standards. Feedback from the focus groups has been presented to NHS Health Scotland, which is responsible for the development of AAA screening programme information. The response of the short-life working group to individual comments is available on the Healthcare Improvement Scotland website (www.healthcareimprovementscotland.org).

Who do these standards apply to?

The standards apply to all AAA screening programme service providers (such as NHS boards/collaboratives) and AAA screening programme support services (including NHS Health Scotland) with responsibility for delivering AAA screening services in Scotland, as detailed in Table 1 (page 9).

Specific criteria have different implications for different AAA service providers and support services detailed in Table 1 on the following page.
### Table 1

<table>
<thead>
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**Support services**

| Information Services Division Scotland | 2a.3 |
| NHS Health Scotland                   | 3a.4 |

The standards also apply to all clinical professions across all primary and secondary care settings involved in the provision of screening for all eligible men.

The following special health boards and national support organisation will not be directly assessed against the standards, but the development of the standards may have implications for them:

- NHS 24
- NHS Education for Scotland
- NHS Health Scotland
- NHS National Services Scotland, and
- Scottish Ambulance Service.
Assessment of performance against the standards

The purpose of Healthcare Improvement Scotland is to support healthcare providers in Scotland to deliver high quality, evidence-based, safe, effective and person-centred care; and to scrutinise services to provide public assurance about the quality and safety of that care.

To allow us to fulfil this purpose, Healthcare Improvement Scotland has developed a programme of work in relation to the external quality assurance of national screening programmes which includes the development of clinical standards. It is expected that services will be delivered in accordance with these national standards.

The clinical standards for the AAA screening programme will be incorporated into Healthcare Improvement Scotland’s external quality assurance activities for national screening programmes: work that will be carried out in collaboration with our stakeholders.
## Clinical standards for the AAA screening programme

### Section 1  Service provision and multidisciplinary care
- **Standard 1** Governance arrangements
- **Standard 2** Audit
- **Standard 3** Communication and support

### Section 2  Call-recall and failsafe procedures
- **Standard 4** Participant eligibility
- **Standard 5** AAA screening uptake

### Section 3  The AAA screening programme
- **Standard 6** The AAA screening examination

### Section 4  Surveillance screening
- **Standard 7** Screening outcomes

### Section 5  Vascular services
- **Standard 8** Referral and assessment

### Section 6  Surgical management
- **Standard 9** Pre and post operative management
- **Standard 10** Post operative outcomes
Section 1: Service provision and multidisciplinary care

Standard 1: Governance arrangements

Standard statement 1a:
There is an agreed, structured abdominal aortic aneurysm (AAA) screening programme, in line with national recommendations, which clearly defines:

- reporting arrangements and accountability
- the processes of care that people with AAA should expect to receive within the programme, and
- the protocols and guidelines that determine which clinician is responsible for the delivery of specific aspects of the screening programme.

Rationale
A structured screening programme with clearly identified lines of accountability will provide a high quality service to meet the needs of the target population.

Reference: 1

Essential criteria

1a.1 Collaborative screening centre
There are clearly defined arrangements for managing the AAA screening service within each collaborative screening centre, with clear lines of accountability to NHS boards/collaboratives.

1a.2 NHS board/collaborative
Processes within the AAA screening programme are reviewed, and any areas in the programme which require improvement are identified and addressed.

1a.3 NHS board/collaborative
There is a designated consultant in public health medicine or registered specialist in public health acting as the AAA screening co-ordinator for the NHS board/collaborative.

1a.4 NHS board/collaborative
There is a designated lead clinician for each NHS board/collaborative.
Section 1: Service provision and multidisciplinary care

Standard 1: Governance arrangements (continued)

Standard statement 1b:
An effective AAA screening programme is available and offered to all eligible male NHS board residents in Scotland.

Rationale
Evidence from randomised control trials, in the UK and overseas, demonstrates reduced incidence of ruptured aortic aneurysm and, consequently, reduced mortality from AAA following introduction of an AAA screening programme. To reflect the range of professionals and healthcare staff involved in the delivery of the AAA screening programme, a multidisciplinary AAA screening co-ordinating group should be established.

References: 1, 2, 3, 4

Essential criteria

1b.1 NHS board/collaborative
Each NHS board/collaborative has a multidisciplinary AAA screening co-ordinating group, with public representation, that meets at least annually to review local performance data and address quality assurance recommendations.

1b.2 NHS board/collaborative
There is a mechanism to identify all men eligible for an invitation to attend AAA screening.

1b.3 NHS board/collaborative
There are clearly defined arrangements for the management of eligible participants in the AAA screening programme.
Section 1: Service provision and multidisciplinary care

Standard 2: Audit

Standard statement 2a:

Case review and clinical audit is undertaken to facilitate continuous improvement in association with nationally agreed datasets.

Rationale

Quality assurance is a required component of clinical care. The use of nationally agreed datasets enables screening centres and NHS boards/collaboratives to assess their performance against other screening centres, NHS boards/collaboratives across a number of key performance indicators.

References: 1, 5, 6

Essential criteria

2a.1 NHS board/collaborative
NHS board/collaborative vascular services submit minimum local datasets to their assigned screening centre.

2a.2 Collaborative screening centre
Each screening centre submits a minimum dataset to Information Services Division Scotland.

2a.3 Information Services Division Scotland
Information Services Division Scotland provides annual reports on key performance indicators (including 1-year survival rates) nationally to all AAA screening programme service providers, to facilitate comparative reporting and feedback.
Section 1: Service provision and multidisciplinary care

Standard 3: Communication and support

Standard statement 3a:

All communication with the users of the AAA screening programme is clear, informative, relevant and timeous, and follows nationally agreed guidelines for communication.

Rationale

To achieve maximum uptake of screening, it is important to provide men with sufficient, clear and relevant information of the process and possible outcomes, including the benefits and risks of participation, so they can make an informed choice.

References: 1, 7

Essential criteria

3a.1 NHS board/collaborative
All men invited for AAA screening are provided with standardised information. This will outline the benefits and risks of screening, and the significance of both positive and negative screening test results.

3a.2 NHS board/collaborative
Information is made available in different formats appropriate to the needs of the target population.

3a.3 AAA screening programme
Mechanisms are in place to monitor, evaluate and improve the effectiveness of communication between healthcare staff and service users.

3a.4 NHS Health Scotland
Patient information material is reviewed at least every 3 years.
Section 1: Service provision and multidisciplinary care

Standard 3: Communication and support (continued)

Standard statement 3b:

All individuals participating in the AAA screening programme have access to a practitioner with experience and knowledge of AAA.

Rationale

A practitioner with knowledge and experience of the development, progression and management of AAA will be able to provide appropriate information and support to individuals.

References: 6, 8

Essential criteria

3b.1 **NHS board/collaborative**
Support needs of individuals are identified and addressed.

3b.2 **NHS board/collaborative**
There is a practitioner who is available to provide support to individuals at the time of the screening episode and during the surveillance period.
Section 2: Call-recall and failsafe procedures

Standard 4: Participant eligibility

Standard statement 4a:
Effective call arrangements are in place to ensure all men in their 65th year are invited for screening.

Rationale
All men in their 65th year are invited to participate in the screening programme, including those from different equality and diversity groups and seldom heard communities.

Reference: 5

Essential criteria

4a.1 NHS board/collaborative
A minimum of 90% of men in their 65th year are sent their first invitation for screening before their 66th birthday.

4a.2 NHS board/collaborative
There is a protocol for the management of non-attendees, both those who fail to attend appointments and those who actively opt out of the screening programme, taking into account patient choice and responsibility for their care.

Desirable criterion

4a.3 NHS board/collaborative
All men in their 65th year are sent their first invitation for screening before their 66th birthday.
Section 2: Call-recall and failsafe procedures

Standard 4: Participant eligibility (continued)

**Standard statement 4b:**

Effective recall arrangements are in place to ensure all men with screen-detected aneurysms are invited for surveillance.

**Rationale**

Monitoring the growth of a screen-detected aneurysm is an essential requirement of the screening programme to enable referral to vascular services for further assessment if, and when, appropriate.

**References:** 5, 9

**Essential criteria**

4b.1 **NHS board/collaborative**

A minimum of 90% of men with a screen-detected small or medium aneurysm attend for surveillance on an annual or quarterly basis, as appropriate.

4b.2 **NHS board/collaborative**

There are failsafe protocols to ensure that all men with a screen-detected small or medium aneurysm, requiring surveillance, are included in the recall system.

**Desirable criterion**

4b.3 **NHS board/collaborative**

All men with a screen-detected small or medium aneurysm attend for surveillance on an annual or quarterly basis, as appropriate.
Section 2: Call-recall and failsafe procedures

Standard 5: AAA screening uptake

Standard statement 5a:
The uptake of AAA screening is maximised (within the principles of informed choice).

Rationale
Success of the AAA screening programme is dependent on achieving high uptake rates. An effective call system is fundamental to the realisation of this objective.

Reference: 5

Essential criteria

5a.1  NHS board/collaborative
A minimum of 70% of men invited for AAA screening are tested.

5a.2  NHS board/collaborative
There is a protocol for the self-referral of men to the AAA screening test.

Desirable criterion

5a.3  NHS board/collaborative
A minimum of 85% of men invited for AAA screening are tested.
Section 3: The AAA screening programme

Standard 6: The AAA screening examination

Standard statement 6a:

Staff performing AAA screening are qualified in all aspects of AAA screening, in accordance with an accredited national training programme or equivalent.

Rationale

Ultrasound scanning is the only method used in the screening programme to detect AAA. All practitioners undertaking the examination must be competent and qualified to do so.

References: 1, 6, 10

Essential criteria

6a.1 Collaborative screening centre
All screening staff provide evidence of competency to deliver scans.

6a.2 Collaborative screening centre
All screening staff undertake an ongoing quality assurance process to ensure skills and competencies remain at a high level.
Section 3: The AAA screening programme

Standard 6: The AAA screening examination (continued)

Standard statement 6b:
The quality of the AAA screening test analyses is continually assessed and monitored, and there is evidence of internal quality control, external quality assessment and quality assurance.

Rationale
The presence of an aneurysm and its dimensions are determined entirely by the accuracy of the screening equipment and by the ability of the practitioner to detect the aorta and measure its diameter.

References: 1, 5, 6, 10

Essential criteria

6b.1 Collaborative screening centre
All men undergoing AAA screening have a minimum of two static sonographic images recorded and stored.

6b.2 Collaborative screening centre
There is a quality assurance process demonstrating that images are accurately interpreted.

6b.3 Collaborative screening centre
Where the aorta cannot be visualised at the screening clinic, a further scan is arranged.

6b.4 AAA screening programme
Internal quality control procedures for ultrasound equipment are undertaken and documented.
Section 3: The AAA screening programme

Standard 6: The AAA screening examination (continued)

Standard statement 6c:
All men receive screening test results that are clear, informative, relevant and timeous.

Rationale
The availability of immediate results allows participants to be informed timeously at the screening episode if they can be discharged from the programme. If an aneurysm is present, the individual will be informed of the next steps for surveillance or referral to vascular services. Appropriate advice and support will be provided by the healthcare professional.

Reference: 6

Essential criteria

6c.1 Collaborative screening centre
A minimum of 97% of men undergoing the AAA screening test receive a provisional verbal screening test result (either positive or negative) and standardised patient information at the time of the screening episode.

6c.2 Collaborative screening centre
All men are sent written confirmation of the screening test result within 20 working days of the scan being completed. A copy of the letter for positive results only will be provided to the patient’s GP. Targeted supplementary patient information is provided, as appropriate.

Desirable criterion

6c.3 Collaborative screening centre
A minimum of 99% of men undergoing the AAA screening test receive a provisional verbal screening test result (either positive or negative) and standardised patient information at the time of the screening episode.
Section 4: Surveillance screening

Standard 7: Screening outcomes

Standard statement 7a:
All deaths from ruptured aortic aneurysm in the eligible population are monitored and reviewed at least annually.

Rationale
A fundamental objective of the AAA screening programme is a reduction in ruptured aortic aneurysm in the eligible population. A key aspect of quality assuring the programme is that the number of AAA-related deaths in either screen negative men or those on surveillance screening should be minimal, and that a mechanism exists to identify and review such cases.

References: 11, 12, 13

Essential criteria

7a.1 Collaborative screening centre
The screening and surveillance history of men, who died of a ruptured aortic aneurysm, is reviewed and discussed by the collaborative screening centre multidisciplinary team.

7a.2 Collaborative screening centre
The mortality rate due to ruptured abdominal aneurysm among men who were screened negative and discharged from the programme is recorded and an action plan implemented.
Section 5: Vascular services

Standard 8: Referral and assessment

Standard statement 8a:
Men with an AAA measuring $\geq 55$ mm are referred to a designated unit in accordance with the UK National Screening Committee Quality Standards and Service Objectives (2009).

Rationale
Clinical evidence, professional guidelines and the UK National Screening Committee recommend that assessment, with a view to surgical intervention, is appropriate for AAA $\geq 55$ mm since the risk of rupture is greater than the mortality rate from elective surgery.

References: 6, 14, 15, 16

Essential criteria

8a.1 NHS board/collaborative
All men with a screen-detected aneurysm of $\geq 55$ mm are referred to a designated unit for assessment within 3 working days of the scan.

8a.2 NHS board/collaborative
A minimum of 75% of men with a screen-detected aneurysm of $\geq 55$ mm are seen by a vascular specialist within 10 working days of referral.

Desirable criterion

8a.3 NHS board/collaborative
A minimum of 95% of men with a screen-detected aneurysm of $\geq 55$ mm are seen by a vascular specialist within 10 working days of referral.
Section 6: Surgical management

Standard 9: Pre and post operative management

Standard statement 9a:
Elective AAA repair is undertaken in hospitals meeting facility requirements, in accordance with The Vascular Society of Great Britain and Ireland Framework (2009).

Rationale
Good evidence exists that centres undertaking AAA repair which meet the criteria described in The Vascular Society of Great Britain and Ireland Framework, and have a high throughput, have better clinical outcomes.

Reference: 15

Essential criteria

9a.1 NHS board/collaborative
There is a 24/7 on-call rota for vascular emergencies covered by consultant vascular surgeons.

9a.2 NHS board/collaborative
There is a critical care facility with the ability to undertake mechanical ventilation and renal support, and with 24-hour on-site anaesthetic cover.

9a.3 NHS board/collaborative
Units receiving referrals from the AAA screening programme undertake a minimum of 20 elective interventions each year.

9a.4 NHS board/collaborative
All units will offer open repair and endovascular aneurysm repair.
Section 6: Surgical management

Standard 9: Pre and post operative management (continued)

Standard statement 9b:
All men assessed for an elective intervention will be managed in line with the UK National Screening Committee Quality Standards and Service Objectives (2009).

Rationale
Good evidence exists that clinical outcomes are better when a multidisciplinary assessment is undertaken to determine a patient’s fitness for operation, the need for other complementary tests and the most appropriate surgical procedure.

References: 5, 6

Essential criteria

9b.1 NHS board/collaborative
All patients being assessed for elective surgery undergo a pre-operative multidisciplinary team assessment to determine their suitability for open repair or endovascular aneurysm repair intervention.

9b.2 NHS board/collaborative
A minimum of 60% of patients with a screen-detected aneurysm ≥ 55 mm deemed appropriate for intervention are operated on by a vascular specialist within 40 working days of referral.

Desirable criterion

9b.3 NHS board/collaborative
A minimum of 80% of patients with a screen-detected aneurysm ≥ 55 mm deemed appropriate for intervention are operated on by a vascular specialist within 40 working days of referral.
Section 6: Surgical management

Standard 10: Post operative outcomes

Standard statement 10a:
Collaborative vascular centres receiving referrals from the AAA screening programme for assessment and possible treatment will meet national quality assurance standards.

Rationale
The AAA screening programme will only refer patients to vascular centres who are able to demonstrate satisfactory clinical outcomes as evidenced by the published key performance indicators.

References: 5, 6, 16

Essential criterion

10a.1 NHS board/collaborative
The 30-day mortality rate following elective open repair or endovascular aneurysm repair is recorded and actions identified and implemented by the NHS board/collaborative multidisciplinary team.
5 Appendices

Appendix 1 Healthcare Improvement Scotland standards development methodology

Appendix 2 NHS boards/collaboratives

Appendix 3 National Services Division key performance indicators for the AAA screening programme

Appendix 4 Membership of the AAA screening programme short-life working group

Appendix 5 Evidence base

Appendix 6 Glossary
Appendix 1: Healthcare Improvement Scotland standards development methodology

Basic principles

Healthcare Improvement Scotland standards are developed in accordance with the commitments of the National Health Service Reform (Scotland) Act (2004). This ensures that ‘individual patients receive the service they need in the way most appropriate to their personal circumstances and all policy and service developments are shown not to disadvantage any of the people they serve’.

Format

Healthcare Improvement Scotland standards are designed to be clear and measurable, based on appropriate evidence, and developed in partnership. Healthcare Improvement Scotland standards follow the same format.

- The title of the standard summarises the area on which that standard focuses.
- The standard statement explains the level of performance to be achieved.
- The rationale section provides the reasoning behind why the standard is considered to be important.
- The standard statement is expanded in the section headed criteria, which states exactly what must be achieved for the standard to be reached.
  - Some criteria are essential in that it is expected that they will be met wherever a service is provided.
  - Other criteria are desirable in that they are being met in some parts of the service, and demonstrate increasing levels of quality, which other providers of a similar service should strive to achieve.

Where essential and/or desirable criteria are met, it is expected NHS boards/collaboratives will review each standard for continuous improvement, implementing an action plan for further progress, where necessary.

Clinical governance and risk management standards

Every individual using healthcare services should expect these to be safe and effective. There are existing NHS QIS Standards for Clinical Governance and Risk Management to ensure NHS boards can provide assurance that clinical governance and risk management arrangements are in place, and that they are supporting the delivery of safe, effective, patient-focused care and services. The clinical governance and risk management standards underpin all care and services delivered by NHSScotland and provide the context within which Healthcare Improvement Scotland service and condition-specific standards apply. The clinical governance and risk management standards are available on request from Healthcare Improvement Scotland or can be downloaded from the website (www.healthcareimprovementscotland.org).
Appendix 2: NHS boards/collaboratives

<table>
<thead>
<tr>
<th>NHS boards/collaboratives</th>
</tr>
</thead>
<tbody>
<tr>
<td>NHS Highland and NHS Western Isles</td>
</tr>
<tr>
<td>NHS Lothian and NHS Borders</td>
</tr>
<tr>
<td>NHS Grampian, NHS Orkney and NHS Shetland</td>
</tr>
<tr>
<td>NHS Fife and NHS Tayside</td>
</tr>
<tr>
<td>NHS Greater Glasgow and Clyde (also delivering call-recall for NHS Forth Valley)</td>
</tr>
<tr>
<td>NHS Forth Valley</td>
</tr>
<tr>
<td>NHS Lanarkshire</td>
</tr>
<tr>
<td>NHS Ayrshire &amp; Arran</td>
</tr>
<tr>
<td>NHS Dumfries &amp; Galloway</td>
</tr>
</tbody>
</table>
### Appendix 3: National Services Division key performance indicators for the AAA screening programme

<table>
<thead>
<tr>
<th>Patient journey</th>
<th>Topic</th>
<th>Quality measure</th>
<th>Essential and desirable criteria</th>
<th>Data source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Invitation and attendance</td>
<td><strong>CORE Completeness of offer</strong></td>
<td>(1.1) Percentage (%) of eligible population who are sent an initial offer to screening.</td>
<td>90% E 100% D</td>
<td>(Initial download CHI) AAA IT System</td>
</tr>
<tr>
<td></td>
<td>Acceptance of Offer</td>
<td>(1.2) % of subjects offered screening who are tested. Statistics to be broken down by Scottish Index of Multiple Deprivation.</td>
<td></td>
<td>ISD</td>
</tr>
<tr>
<td></td>
<td><strong>Core Uptake</strong></td>
<td>(1.3) % of subjects offered screening who are tested.</td>
<td>70% E 85% D</td>
<td>AAA IT System</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(1.4) % of subjects who attend for surveillance (quarterly and yearly data).</td>
<td>90% E 100% D</td>
<td>AAA IT System</td>
</tr>
<tr>
<td>Minimising harm</td>
<td>Quality of scan/ images/ samples/testing technique</td>
<td>(2.1) % screening encounters where aorta could not be visualised.</td>
<td>&lt; 3% E&lt;br&gt; &lt; 1% D</td>
<td>AAA IT System</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(2.2) % accurate calliper placement, determined by review of static image.</td>
<td>&gt; 96% E&lt;br&gt; &gt; 99% D</td>
<td>AAA IT System</td>
</tr>
<tr>
<td>Results</td>
<td>Timely availability of results</td>
<td>(3.1) % results communicated on same day.</td>
<td>&gt; 97% E&lt;br&gt; &gt; 99% D</td>
<td>AAA IT System</td>
</tr>
<tr>
<td>Referral for assessment / treatment</td>
<td><strong>CORE Timely treatment/ intervention by specialist, measured from first positive scan/referral</strong></td>
<td>(4.1) % of subjects with AAA ≥ 55 mm seen by vascular specialist within ten working days of referral</td>
<td>75% E&lt;br&gt; 95% D</td>
<td>AAA IT System</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(4.2) % of subjects with AAA ≥ 55 mm deemed appropriate for intervention/operated on by vascular specialist within forty working days of referral</td>
<td>60% E&lt;br&gt; 80% D</td>
<td>AAA IT System</td>
</tr>
<tr>
<td>Outcome</td>
<td><strong>CORE Post-operative mortality</strong> (assessed annually over most recent 100 cases submitted by vascular network)</td>
<td>(5.1) 30-day mortality rate following open elective AAA surgery</td>
<td>&lt; 5% E&lt;br&gt; &lt; 3.5% D</td>
<td>AAA IT System / ISD</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(5.2) 30-day mortality rate following EVAR intervention</td>
<td>&lt; 4% E&lt;br&gt; &lt; 2% D</td>
<td>AAA IT System / ISD</td>
</tr>
</tbody>
</table>
### Appendix 4: Membership of the AAA screening programme short-life working group

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>NHS board area/Organisation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mr Hector Campbell</td>
<td>Lead Clinician – AAA Screening Programme</td>
<td>National Services Division</td>
</tr>
<tr>
<td>Mr John Connor</td>
<td>Principal Information Analyst</td>
<td>Information Services Division Scotland</td>
</tr>
<tr>
<td>Dr Emilia Crighton</td>
<td>Consultant in Public Health Medicine / NHS Board Screening Co-ordinator</td>
<td>NHS Greater Glasgow and Clyde</td>
</tr>
<tr>
<td>Mr John Duncan</td>
<td>Consultant General and Vascular Surgeon</td>
<td>NHS Highland</td>
</tr>
<tr>
<td>Mrs Belinda Henshaw</td>
<td>Programme Manager</td>
<td>National Services Division</td>
</tr>
<tr>
<td>Mr Jim Leishman</td>
<td>Senior Health Promotion Officer and Men’s Health Co-ordinator / Trustee</td>
<td>NHS Forth Valley / Men’s Health Forum Scotland</td>
</tr>
<tr>
<td>Ms Maria Murray</td>
<td>Radiography Project Lead / Educational Projects Manager</td>
<td>NHS Education for Scotland</td>
</tr>
<tr>
<td>Dr Alastair Nimmo</td>
<td>Consultant Anaesthetist</td>
<td>NHS Lothian</td>
</tr>
</tbody>
</table>

Support from NHS Quality Improvement Scotland/Healthcare Improvement Scotland was provided by the Standards Development Unit.
Appendix 5: Evidence base


5. National Services Division. AAA Screening Programme: Key Performance Indicators. February 2011


13. Duncan JL, Godden DJ, Lindsay SM, Cairns J. Highlands and Islands Aortic Aneurysm Screening Project. 2004


### Appendix 6: Glossary

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>abdominal aorta</strong></td>
<td>The abdominal aorta is the final section of the largest artery in the body. The abdominal aorta supplies blood to the legs and the organs in the abdomen (belly) and pelvis.</td>
</tr>
<tr>
<td><strong>aneurysm rupture</strong></td>
<td>The bursting of an aneurysm.</td>
</tr>
<tr>
<td><strong>aortic aneurysm</strong></td>
<td>A balloon-like swelling in the wall of the aorta.</td>
</tr>
<tr>
<td><strong>call-recall</strong></td>
<td>The process used to invite people for a screening test (scan).</td>
</tr>
<tr>
<td><strong>calliper placement</strong></td>
<td>A method used to calculate the size of an aneurysm.</td>
</tr>
<tr>
<td><strong>case review</strong></td>
<td>A process to check patient’s case notes, eg to make sure the person’s medical condition has been correctly diagnosed.</td>
</tr>
<tr>
<td><strong>collaborative</strong></td>
<td>NHS boards in different areas working together to provide health services.</td>
</tr>
<tr>
<td><strong>computed tomography angiography</strong></td>
<td>A form of computer generated X-ray image.</td>
</tr>
</tbody>
</table>
| **Consortium for the Accreditation of Sonographic Education** | A group of professional organisations which work together to promote good practice in ultrasound. It currently consists of six organisations:  
- British Medical Ultrasound Society  
- British Society of Echocardiography  
- College of Radiographers  
- Institute of Physics and Engineering in Medicine  
- Royal College of Midwives, and  
- The Society of Vascular Technology of Great Britain and Ireland. |
<p>| <strong>designated unit</strong> | A unit that meets national quality assurance standards. |
| <strong>elective (surgery)</strong> | Surgery which is not considered urgent, but which can benefit the patient. |
| <strong>eligible</strong> | People considered suitable to take part in a health programme or treatment. |
| <strong>for the AAA screening programme</strong> | For the AAA screening programme, this is all men aged 65 years and over who live in Scotland. |
| <strong>endovascular aneurysm repair or endovascular aortic repair</strong> | A technique to repair an aneurysm. |
| <strong>equality and diversity impact assessment</strong> | A process to ensure the NHS provides the same care or treatment to all people who use NHS services. |
| <strong>failsafe</strong> | A process to make sure that people receive safe and reliable care or treatment. |</p>
<table>
<thead>
<tr>
<th><strong>Information Services Division Scotland (ISD)</strong></th>
<th>The part of the NHS which analyses national health data. Website address: <a href="http://www.isdscotland.org">www.isdscotland.org</a></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>key performance indicators</strong></td>
<td>A measure of how well the NHS is performing.</td>
</tr>
<tr>
<td><strong>Knowledge and Skills Framework</strong></td>
<td>A process to ensure that NHS staff have the correct knowledge and skills for their roles.</td>
</tr>
<tr>
<td><strong>mortality rate</strong></td>
<td>The number of deaths from a particular condition or disease during a specific period of time.</td>
</tr>
<tr>
<td><strong>National Services Division</strong></td>
<td>A part of the NHS which has responsibility for overseeing national screening programmes and other services. Website address: <a href="http://www.show.scot.nhs.uk/nsd">www.show.scot.nhs.uk/nsd</a></td>
</tr>
<tr>
<td><strong>open repair</strong></td>
<td>An operation to replace the swollen section of the aorta with an artificial piece of artery (a graft).</td>
</tr>
<tr>
<td><strong>practitioner</strong></td>
<td>NHS staff who are registered with a regulatory body or organisation.</td>
</tr>
<tr>
<td><strong>prospective (audit)</strong></td>
<td>A process to find out if a treatment or procedure has a benefit for patients.</td>
</tr>
<tr>
<td><strong>quality assurance</strong></td>
<td>A process to ensure the delivery of high quality services.</td>
</tr>
<tr>
<td><strong>retrospective (data)</strong></td>
<td>Data collected from existing records, eg patient records.</td>
</tr>
<tr>
<td><strong>Scottish Index of Multiple Deprivation</strong></td>
<td>A tool used to identify deprived areas in Scotland. The data from this tool can be used to help plan NHS services.</td>
</tr>
<tr>
<td><strong>screening episode</strong></td>
<td>The screening test (scan).</td>
</tr>
<tr>
<td><strong>self-referral</strong></td>
<td>When a patient refers himself for a service, eg a scan or treatment.</td>
</tr>
<tr>
<td><strong>special health boards</strong></td>
<td>Support the NHS to deliver services across the whole of Scotland. Some special health boards provide services directly to patients, eg State Hospitals Board for Scotland. Others provide support to NHS professionals, such as NHS Education for Scotland. Website address: <a href="http://www.show.scot.nhs.uk/organisations/specialhbs.htm">www.show.scot.nhs.uk/organisations/specialhbs.htm</a></td>
</tr>
<tr>
<td><strong>surveillance</strong></td>
<td>When a patient’s condition is monitored over time.</td>
</tr>
<tr>
<td><strong>UK National Screening Committee</strong></td>
<td>This committee provides professional advice about all aspects of health screening, eg to the Government and the NHS.</td>
</tr>
</tbody>
</table>
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