The condition

**What is an abdominal aortic aneurysm (AAA)?**
The aorta is the main blood vessel that supplies blood to the body. It runs from the heart down through the chest and abdomen. In some people, the wall of the aorta in the abdomen can become weak as they get older. It can then start to expand and form what is called an abdominal aortic aneurysm (AAA). The condition is most common in men aged 65 and above.

**How common is the condition?**
Around 1 in 40 men aged 65 in Northern Ireland have an AAA. You can expect between 2–4% of these men to have an AAA greater than 30mm in diameter. It is estimated that as few as 1 in 300 men aged 65 will have a large AAA (greater than 55mm in diameter).

**What is the chance of dying from a ruptured AAA?**
If an AAA ruptures, it is a surgical emergency as it can lead to serious blood loss. The death rate after rupture is about 80% because many patients die before they reach hospital. The aim of the Northern Ireland AAA Screening Programme is to detect, monitor and treat AAAs early in order to reduce the number of deaths from ruptured AAAs.

Roll-out of the screening programme

**When and where is screening being offered?**
The AAA screening programme is being introduced across Northern Ireland in the summer of 2012. There is a central screening office in Belfast and a number of screening centres in fixed locations across Northern Ireland. You can contact the central screening office on 028 9063 1828 for further information.

**Where does screening take place?**
Screening technicians or sonographers working in teams of two will travel to a number of fixed locations throughout Northern Ireland to undertake screening clinics. Locations may include health and care centres, health and wellbeing centres, community hospitals and larger GP practices.

For details on where screening is currently available, visit the Northern Ireland AAA screening pages of the PHA website at: www.publichealth.hscni.net/

You can contact the central screening office on 028 9063 1828 for further information.

**Please do not phone local screening centres for information.**
What is the scientific evidence to support AAA screening?
The programme has been introduced following research evidence, pilot programmes and economic evaluation. The UK National Screening Committee assessed the evidence around the introduction of an AAA screening programme against a set of internationally recognised criteria to ensure that it will deliver benefits at a reasonable cost.

How many lives will be saved by the programme?
It is estimated that, when fully implemented, the programme will reduce the death rate from ruptured AAAs among men aged 65 and over by up to 50%.

The process

How are men invited?
Men eligible for screening (in their 65th year) are sent an invitation letter and information leaflet around three weeks before their appointment date. The leaflet provides details on the screening programme, how scans are carried out and the possible results.

If the time or date is inconvenient, the appointment can be rescheduled.

What if a man doesn’t want to be screened?
Attending for AAA screening is a choice and there is no obligation to attend. If a man has considered the AAA screening test and decided he does not wish to be screened, he can telephone the central screening office and ask to be removed from their list.

Primary healthcare professionals should, when the opportunity presents itself, encourage eligible patients to come forward for screening.

What if a man who is called for screening does not attend?
Men who do not attend their first appointment will receive one further invitation for screening. The letter will inform them that it will be their final invitation for screening, but they can still request a scan at any stage through the central screening office.

How reliable is the scan?
The scan used to find AAAs is very reliable. No screening test can be completely effective, but it is very rare for a man who has had a normal result to develop a large AAA later in life.

Sometimes the person carrying out the scan will not be able to see the aorta clearly. In this case, the man will either be called back for a second appointment at another screening clinic, or asked to have another scan in a hospital.

Will AAA screening pick up other problems?
No. AAA screening just looks for abdominal aortic aneurysms. It does not look for other health problems.

What are the risks?
There are no risks from the scan itself. Screening does not completely remove the risk of an AAA rupturing, but it is the best method of protection against this.
Can men aged over 65 be screened?
Men who receive a normal result do not need follow-up scans. Men aged over 65 who have not previously been screened or diagnosed with an AAA can request a scan by contacting the central screening office directly on 028 9063 1828.

Why are men aged under 65 not invited?
The purpose of the screening programme is to reduce deaths from ruptured AAAs. Men aged over 65 are most likely to have an AAA and 95 per cent of ruptured AAAs occur in this age group. There is no evidence that inviting men younger than 65 for screening as part of a population-based screening programme would deliver major benefits.

Why are women not invited?
Men are six times more likely than women to have an AAA. Ruptured AAAs are also less common in women and on average occur 10 years later than in men. Any population-based screening programme must be able to demonstrate that the benefits to the target population outweigh any potential harm. There is no evidence to show that inviting women for screening as part of a population-based screening programme would deliver major benefits.

Men and women who have a close relative – brother, sister or parent – who has, or has had, an AAA can receive an ultrasound scan at an appropriate age under existing Health and Social Care procedures and should speak to their GP to discuss a referral.

The test

What test is used to screen for an AAA?
An ultrasound scan of the abdomen is used to screen for an AAA. This is similar to the scan used in pregnancy to check how a baby is developing. The test is simple, quick and painless. It is carried out by a specially trained screening technician (also called a ‘screener’) or sonographer who is trained to standards set by the Northern Ireland AAA Screening Programme.

The test process
- The man is asked to lie on a bed and lift up his shirt. There is no need to undress.
- The screening technician puts some clear, water-based jelly on the man’s abdomen.
- An ultrasound probe is passed gently over the man’s abdominal area.
- An image of the aorta is displayed on a monitor. The screening technician measures the diameter of the aorta and determines if an AAA is present.
- The man is told his result straight away. If an AAA is detected, he is given a leaflet explaining what happens next. He will have the opportunity to discuss his result on the day and will be contacted by a specialist nurse within two working days.

See Results section for further information.
Results

What are the possible results and what is the follow-up process?
There are four possible results from the scan:

• Most men (around 98% of those screened) will have a normal result. This means the aorta is not enlarged and no further treatment or monitoring is required.
• If a small AAA is found, it means the aorta is a little wider than normal and the man is invited back for a monitoring scan once every year to check if it is getting bigger.
• If a medium AAA is found, it means the aorta is significantly wider than normal and the man is invited back for a monitoring scan once every three months to check if it is getting bigger.
• If a large AAA is found, it means the aorta is much wider than normal. A very small number of men will have this result. Those who do are given an appointment with a team of vascular specialists to be assessed for surgery. This appointment will take place within two or three weeks of the initial diagnosis.

All men diagnosed with an AAA should be offered the following advice and support in line with NICE guidance:

• smoking cessation;
• diet, weight management and exercise;
• lipid modification and statin therapy;
• prevention, diagnosis and management of diabetes;
• prevention, diagnosis and management of high blood pressure;
• drug therapy and anti-platelet agents.
See: www.nice.org.uk/nicemedia/live/12343/58408/58408.pdf

What should men do if they are diagnosed with a small AAA?
• AAAs grow very slowly so the risk of these men developing serious problems is very low.
• They will be contacted by a specialist nurse within two working days of their diagnosis and given the number of the central screening office for information.
• They will also be invited back for monitoring scans once a year to check the size of their AAA.

What should men do if they are diagnosed with a medium AAA?
• AAAs grow very slowly so the risk of these men developing serious problems is low.
• They will be contacted by a specialist nurse within two working days of their diagnosis and given the number of the central screening office for information.
• They will also be invited back for monitoring scans once every three months to check the size of their AAA.

What about men diagnosed with a large AAA?
• Men with an aorta 55mm or more in diameter are immediately referred and will be seen by a team of vascular specialists within two to three weeks.
• The specialists will carry out tests to assess the patient’s suitability for surgery.
• The patient will also be contacted by a specialist nurse within two working days of their diagnosis and given the number of the central screening office for information.
• If the patient has any immediate concerns, they will be advised to contact the central screening office coordinator on 028 9063 1828. Alternatively, they can contact their GP.
What are the implications for driving?

The Driver and Vehicle Licensing Agency (DVLA) is responsible for deciding whether or not people can drive on the basis of their health or any conditions they may have. GPs and vascular specialists can advise patients whether or not they should refrain from driving and whether or not a health condition must be reported to the DVLA. Motor insurers cannot ask questions about health conditions and so do not adjust premiums on that basis.

The DVLA’s policy on driving once an AAA has been diagnosed states the following:

• For motor car drivers, the DVLA should be notified once a diagnosed AAA reaches 60mm. Once the AAA reaches 65mm, the patient should be suspended from driving.
• Drivers of lorries and buses should be suspended from driving once an AAA reaches 55mm.
• If the AAA is treated successfully, the licence will be reinstated.

The Northern Ireland AAA Screening Programme refers men to vascular specialists if their AAA reaches 55mm. The DVLA policy does not affect men with small (30–44mm) or medium AAAs (45–54mm) who are part of the programme’s monitoring group.

What are the implications for air travel and travel insurance?

The Association of British Insurers (ABI) has been advised that AAAs are no more likely to rupture at altitude than on the ground and it is not aware of any airlines operating a standing rule about refusing patients with this condition. The ABI is also unaware of any travel insurance policies that contain a specific exclusion for AAAs as part of their standard wording.

If an applicant for travel insurance declares an AAA, the ABI understands that the medical screening process does not ask the diameter of the aneurysm because to do so would be to expect a degree of medical knowledge on the part of the patient that they might not have.

Patients are instead asked whether or not they have had definitive treatment (ie surgery or stenting) and if so, when. They are also asked if they are on a waiting list for such treatment and if they have any other related cardiovascular diseases.

The ABI suggests that anyone with an AAA should declare the condition during the travel insurance application process, or when the AAA has been diagnosed if they have an existing travel insurance policy.

Where an applicant declares an AAA, they may be charged an additional premium or have the condition excluded from cover. When looking for cover, a broker can help. The British Insurance Brokers Association (BIBA) operates a ‘find a broker’ service that can help. Their contact number is 0870 950 1790.
Treatment

What treatment is available?
Almost all large AAAs can be treated by surgery if they are detected early. The vascular surgeon will discuss treatment options with the patient once a large AAA has been diagnosed. The chances of recovery after elective surgery are much better than they are after emergency surgery. Generally there are two types of operation available:

• Most large AAAs are treated by an operation during which the aneurysm is replaced with an artificial artery made of very strong synthetic material. This artificial artery should last for the rest of the man’s life and will protect the aorta against possible rupture.
• Some large AAAs are suitable for a form of keyhole surgery called endovascular aneurysm repair (EVAR). This involves delivering stents through the arteries from the groin through the aorta. Although EVAR is initially safer for the patient, it requires careful long-term surveillance and, in rare cases, may require further intervention.

Why are small and medium AAAs not treated?
It is highly unlikely that a small or medium AAA will pose a serious risk. As with any operation, there are risks associated with having surgery for an AAA. As these risks are greater than that posed by monitoring an AAA, surgeons do not recommend treatment for men with a small or medium AAA. If the AAA grows and the risk of rupture increases, surgery may become an option and will be discussed with the patient. For further information, visit: http://aaa.screening.nhs.uk/

What are the implications for life after surgery (including sexual function)?
This depends on whether the patient has had EVAR or open surgery. With EVAR, there should be very little impact on life, including sexual function. However, with open surgery, implications will depend on any pre-existing medical conditions the patient may have, and there can be a significant risk of impotence or retrograde ejaculation. The decision to perform open surgery or EVAR is complex and will be discussed in detail with the patient by the vascular surgeon.

Personal information

Why does the screening programme need to retain personal information?
Screening is a diagnostic procedure that requires the consent of the individual and there is an associated duty of care to record information to evidence what is done and what is found, and to share this with appropriate healthcare providers so any findings can be followed up. Recording data enables the screening programme to quality assure the screening process, thereby ensuring that screening, assessment and treatment are effective and timely. The abdominal scan is only one part of a systematic pathway of care and it would be irresponsible and potentially negligent to offer a scan without ensuring the safeguards offered by an assured national system are in place.

The screening programme needs to retain personal data so it knows if and when an individual has received a scan, whether or not they have declined screening etc. It also enables the programme to keep track of who has (or hasn’t) been invited for screening and deal with follow-up enquiries. Strict data governance means personal information is only available to healthcare professionals involved in the man’s screening or any subsequent assessment or treatment.