Appendix E Table 1. Methodological and Intervention Characteristics of Included One-Time Screening Studies (KQs 1 and 3)

| **Comparison** | **Author, Year****Trial name** | **Study Quality** | **N Randomized** | **Country** | **Mean Length of FU, y** | **Intervention** | **Control** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Screening vs. no screening | Ashton, 2007113 (Men only) & Scott, 200236 (Women only)Chichester | Fair | 15,382Men: 6,040Women: 9,342 | UK | 15.0 (Men only)10 (Women only) | Ultrasound screening; patients with an aneurysm of 3.0–4.4 cm diameter were rescanned annually and those with an aneurysm of 4.5–5.9 cm diameter were rescanned every 3 months. This was continued until February 1994 or until the patient died, underwent surgical intervention, or declined followup. | Surveillance |
| Thompson, 201212, 170 MASS | Good | 67,770 | UK | 13.1 | Ultrasound screening; patients with an aortic diameter of 3.0–4.4 cm were rescanned yearly. Those with an aortic diameter of 4.5–5.4 cm were rescanned at 3-month intervals. Urgent referral to a vascular surgeon was recommended for patients with aortic diameter ≥5.5 cm. QOL was assessed in patients with screen- detected AAA and those with normal scans at 1.5, 3, and 12 months (n=1,956).12 | Surveillance |
| Lindholt, 2010147 Viborg | Good | 12,639 | Denmark | 13 | Ultrasound screening; participants with aneurysms ≥5 cm were referred to a vascular surgeon; those with AAAs 3–4.9 cm were offered annual scans to check for expansion. After 5 years those with initial ectatic aorta (diameter 2.5–2.9 cm) were offered rescreening.  | Surveillance |
| Lindholt, 2017146 VIVA | Fair | 50,156(Screening group n=25,078) | Denmark | 4.4\* | Ultrasound screening; patients with aneurysms ≥5 cm were referred to CT scanning and assessment by a vascular surgeon for repair. Participants were invited to one annual clinical followup, which consisted of ultrasound screening. Person identification numbers were used to search the Danish Vascular Registry for vascular procedures. ABI screening; participants with possible hypertension alone encouraged to consult with general practitioner for confirmation of diagnosis, initiation of prophylactic activities, or both.Blood total cholesterol measurement if diagnosis of AAA or PAD was confirmed with repeated ultrasonography and ABI measurement. If total serum cholesterol concentration exceeded 4.0 mmol/L, participant prescribed statin therapy (40 mg/day simvastatin) and aspirin (75 mg/day). All positive findings and initiated medications communicated to general practitioner to ensure medication continuation and followup. | Surveillance |
| McCaul, 201615, 168Western Australia | Fair | 38,480 | Australia | 12.8\* | Ultrasound screening†; QOL (SF-36, EuroQOL EQ-5D) was assessed 12 months after screening (n=365).  | Surveillance |
| Screening harms | Lesjak, 2012141 | Fair | NRǂ | Australia | 6 mo | At the time of time of screening, self-administered questionnaires were completed including the Medical Outcomes Short Form 36v.2 (MOSF36). Six months after screening, all participants who had an abnormal aortic diameter (≥2.6 cm) were followed up and completed MOSF36 questionnaires (n=53). | A random sample of men with normal scans were followed up 6 months after screening (n=130). |
| Lucarotti, 1997150 | Fair | NR | UK | 1 mo | Men invited to screening filled out the QOL questionnaire (General Health Questionnaire; linear analogue scale) prior to screening. One month after initial screening, the first 61 men with diagnosed AAA (definition NR) were asked to complete the QOL assessment again (n=61). | Men invited to screening filled out the QOL questionnaire (General Health Questionnaire; linear analogue scale) prior to screening. One month after initial screening, the first 100 men with normal scans were asked to complete the QOL assessment again (n=100). |
| Wanhainen, 2004174 | Fair | NR | Sweden | 1.0 | Participants were given a QOL assessment questionnaire (SF-36) at baseline and then 12 months after screening. A cohort of participants with screen-detected AAA were followed (n=24). | Participants were given a QOL assessment questionnaire (SF-36) at baseline and 12 months after screening. A cohort of age-/sex-matched controls with normal AAA scans were followed (n=45). |

\*Median.

†After screening, participants were given a letter containing the results of their scan and a copy for their primary care physician. Any followup investigations or referral to a surgeon were arranged by the primary care physician. No attempt was made by investigators to influence clinical management with regards to threshold for intervention or method of repair.

ǂ53 men completed the questionnaire (out of 516).

**Abbreviations:** AAA = abdominal aortic aneurysm; EQ-5D = EuroQOL-5D; MASS = Multicenter Aneurysm Screening Study; QOL = quality of life; SF-36 = Short-form 36-item Health Survey; NR = not reported.