Studies included in the systematic review by Paravastu et al.

Full citation	ACE trial (results reported in multiple publications outlined in the Cochrane systematic review)
Study details	Study type: multicentre, non-blinded, randomised controlled trial Location: France Aim: to assess the results of EVAR and of open surgery in relatively good-risk patients presenting with an asymptomatic abdominal aortic or aorto-iliac aneurysm Study dates: 2003 to 2008 Follow-up: up to 4 years Sources of funding: not reported
Participants	Population: patients with asymptomatic unruptured abdominal aortic or aorto-iliac aneurysm Sample size: 299; 99% male Inclusion criteria: men with AAA >5 cm in men and women with AAA >4.5 cm were included. Furthermore patients with common iliac artery aneurysms >3.0 cm, an aneurysm upper neck free of major thrombus or calcification, ≥1.5 cm length and angle between the neck, the axis of the aneurysm <60° and iliac arteries compatible with the introducer sheath were included Exclusion criteria: previous AAA surgery, a ruptured aneurysm, a mycotic aneurysm, severe iodine allergy and life expectancy <6 months, or patients graded as category 3 using the SVS/AAVS classification system Baseline characteristics: Mean age: EVAR group, 68.9 years; Open surgery group, 70.0 years Sex: EVAR group, 100% male; Open surgery group, 98% male Mean aneurysm diameter: EVAR group, 55.2 mm; Open surgery group, 55.6 mm Diabetes: EVAR group, 13.3%; Open surgery group, 19.5% Hypertension: EVAR group, 66.0%; Open surgery group, 63.8% Hyperlipidaemia: EVAR group, 68.7%; Open surgery group, 65.8% Carotid artery disease: EVAR group, 8.0%; Open surgery group, 8.1% Renal insufficiency: EVAR group, 14.0%; Open surgery group, 10.1% Pulmonary disease: EVAR group, 19.3%; Open surgery group, 28.2%
Intervention	EVAR
Comparison	Open surgical repair
Outcomes measures	All-cause mortality, major adverse events (myocardial infarction, permanent stroke, permanent haemodialysis, major amputation, paraplegia and bowel infarction), vascular reinterventions and minor complications

Full citation	ACE trial (results reported in multiple publications outlined in the Cochrane systematic review)
Risk of bias assessment (from the Cochrane review)	1. Random sequence generation (selection bias): Low risk – A clinical research unit performed randomisation by centre 2. Allocation concealment (selection bias): Low risk – Treatment allocation was notified less than 24 hours to the investigator 3. Blinding of participants and personnel (performance bias): Low risk – It was not possible to blind participants but this was unlikely to bias results as objective outcomes were measured 4. Blinding of outcome assessment (detection bias): Unclear – It is unclear whether assessors were blinded 5. Incomplete outcome data (attrition bias): Low risk – Authors presented results based using an intention-to treat approach and presented final follow up results. All participants were accounted for. 6. Selective reporting (reporting bias): Low risk – All pre-specified outcomes were reported 7. Other bias: Low risk – none identified Overall risk of bias: Low Directness: directly applicable

Full citation	**DREAM trial (results reported in multiple publications outlined in the Cochrane systematic review)** **NB: a new publication was identified from update searches** **van Schaik T G, Yeung KK, Verhagen HJ et al. (2017) Long-term survival and secondary procedures after open or endovascular repair of abdominal aortic aneurysms. European Journal of Vascular and Endovascular Surgery 54 (5), 671**
Study details	Study type: multicentre, non-blinded, randomised controlled trial Location: Netherlands Aim: to assess the differences in results of conservative EVAR and open surgical treatment of unruptured AAA Study dates: 2000 to 2003 Follow-up: up to 15 years Sources of funding: the trial was funded by a grant from the Netherlands National Health Insurance Council.
Participants	Population: patients with unruptured AAA Sample size: 351; 91% male Inclusion criteria: men with AAA >5 cm in men and women with AAA >4.5 cm were included. Furthermore patients with common iliac artery aneurysms >3.0 cm, an aneurysm upper neck free of major thrombus or calcification, ≥1.5 cm length and angle between the neck, the axis of the aneurysm <60° and iliac arteries compatible with the introducer sheath were included Exclusion criteria: a ruptured aneurysm, a mycotic aneurysm, presence of anatomical variations, connective tissue disease, history of organ transplant, or life expectancy <2 years Baseline characteristics: Mean age: EVAR group, 70.7 years; Open surgery group, 69.6 years Sex: EVAR group, 93% male; Open surgery group, 90% male Mean aneurysm diameter: not reported Comorbidities: not reported
Intervention	EVAR
Comparison	Open surgical repair
Outcomes measures	All-cause mortality, aneurysm-related mortality, complications and reintervention rates
Risk of bias assessment (from	1. Random sequence generation (selection bias): Low risk – Randomisation was performed centrally with the use of a computer-generated permuted block sequence and stratified according to study centre in blocks of 4 patients 2. Allocation concealment (selection bias): Low risk – Allocation concealment was performed appropriately

Full citation	DREAM trial (results reported in multiple publications outlined in the Cochrane systematic review) NB: a new publication was identified from update searches van Schaik T G, Yeung KK, Verhagen HJ et al. (2017) Long-term survival and secondary procedures after open or endovascular repair of abdominal aortic aneurysms. European Journal of Vascular and Endovascular Surgery 54 (5), 671
the Cochrane review)	3. Blinding of participants and personnel (performance bias): Low risk – It was not possible to blind participants but this was unlikely to bias results as objective outcomes were measured 4. Blinding of outcome assessment (detection bias): Low risk – Outcome assessors were blinded to group allocations 5. Incomplete outcome data (attrition bias): Low risk – Analysis was performed using an intention-to-treat basis 6. Selective reporting (reporting bias): Low risk – All pre-specified outcomes were reported 7. Other bias: Low risk – none identified Overall risk of bias: Low Directness: directly applicable

Full citation	**EVAR1 trial (results reported in multiple publications outlined in the Cochrane systematic review)** **NB: a new publication was identified from update searches** **Patel R, Sweeting MJ, Powell JT et al. (2016) Endovascular versus open repair of abdominal aortic aneurysm in 15-years' follow-up of the UK endovascular aneurysm repairtrial 1 (EVAR trial 1): a randomised controlled trial. Lancet. 388(10058):2366-2374.**
Study details	Study type: multicentre, non-blinded, randomised controlled trial Location: UK Aim: to assess the efficacy of EVAR in the treatment of AAA in terms of mortality, quality of life, durability and cost-effectiveness Study dates: 1999 to 2004 Follow-up: up to 15 years Sources of funding: the trial was funded by the National Health Service Research and Development Health Technology Assessment Programme
Participants	Population: patients with unruptured AAA Sample size: 1,252; 91% male Inclusion criteria: patients ≥60 years with AAA ≥5.5 cm in diameter were included Exclusion criteria: contraindications for surgery Baseline characteristics: Mean age: EVAR group, 74.1 years; Open surgery group, 74.0 years Sex: EVAR group, 90.3% male; Open surgery group, 90.1% male Mean aneurysm diameter: EVAR group, 64.0 mm; Open surgery group, 65.0 mm Diabetes: EVAR group, 9.8%; Open surgery group, 11.0% Cardiac disease: EVAR group, 41.8%; Open surgery group, 43.0%
Intervention	EVAR
Comparison	Open surgical repair
Outcomes measures	All-cause mortality, aneurysm-related mortality, complications and reintervention rates
Risk of bias assessment	1. Random sequence generation (selection bias): Low risk – Participants were randomised to groups on a 1:1 basis using randomly permuted block sizes constructed using STATA. Randomisation is stratified by centre and was performed centrally. 2. Allocation concealment (selection bias): Low risk – Allocation was performed only after all baseline data were recorded

Full citation	**EVAR1 trial (results reported in multiple publications outlined in the Cochrane systematic review)** **NB: a new publication was identified from update searches** **Patel R, Sweeting MJ, Powell JT et al. (2016) Endovascular versus open repair of abdominal aortic aneurysm in 15-years' follow-up of the UK endovascular aneurysm repairtrial 1 (EVAR trial 1): a randomised controlled trial. Lancet. 388(10058):2366-2374.**
	3. Blinding of participants and personnel (performance bias): Low risk – It was not possible to blind participants but this was unlikely to bias results as objective outcomes were measured 4. Blinding of outcome assessment (detection bias): Unclear – It is unclear whether assessors were blinded 5. Incomplete outcome data (attrition bias): Low risk – Analysis was performed using an intention-to-treat basis and all participants were accounted for 6. Selective reporting (reporting bias): Low risk – All pre-specified outcomes were reported 7. Other bias: Low risk – none identified Overall risk of bias: Low Directness: directly applicable

Full citation	OVER trial (results reported in multiple publications outlined in the Cochrane systematic review)
Study details	Study type: multicentre, non-blinded, randomised controlled trial Location: USA Aim: to compare postoperative outcomes after EVAR and open repair Study dates: 2002 to 2008 Follow-up: 14 years Sources of funding: this study was supported by the United States' Cooperative Studies Program of the Department of Veterans Affairs Office of Research and Development
Participants	Population: patients with unruptured AAA Sample size: 881; 99% male Inclusion criteria: patients with AAA ≥5 cm, an iliac aneurysm (associated with an AAA) ≥3 cm, an AAA ≥4.5 cm which had increased in size by ≥0.7 cm in 6 months, an AAA ≥4.5 cm which had increased in size by ≥1 cm in 12 months, an AAA ≥4.5 cm that was considered saccular (a portion of the circumference of the aorta at the level of the aneurysm is considered normal) or an AAA ≥4.5 cm that was associated with distal embolism were included Exclusion criteria: previous AAA repair, a ruptured aneurysm or likelihood of poor compliance to the study protocol Baseline characteristics: Mean age: EVAR group, 69.6 years; Open surgery group, 70.5 years Sex: EVAR group, 99.3% male; Open surgery group, 99.5% male Mean aneurysm diameter: EVAR group, 57.0mm; Open surgery group, 57.0 mm Coronary artery disease: EVAR group, 39.2%; Open surgery group, 42.3% Myocardial infarction: EVAR group, 23.6%; Open surgery group, 25.2% Coronary revascularization: EVAR group, 35.8%; Open surgery group, 35.0% Cerebrovascular disease: EVAR group, 15.1%; Open surgery group, 16.0% Hypertension: EVAR group, 78.2%; Open surgery group, 75.5% Claudication: EVAR group, 14.9%; Open surgery group, 18.5% Diabetes: EVAR group, 22.5%; Open surgery group, 22.9% COPD: EVAR group, 28.4%; Open surgery group, 30.4%
Intervention	EVAR
Comparison	Open surgical repair

Full citation	OVER trial (results reported in multiple publications outlined in the Cochrane systematic review)
Outcomes measures	All-cause mortality, aneurysm-related mortality, complications and reintervention rates
Risk of bias assessment	1. Random sequence generation (selection bias): Low risk – Randomisation was performed by 'permuted block design' 2. Allocation concealment (selection bias): Low risk – Allocation was performed only after all baseline data were recorded 3. Blinding of participants and personnel (performance bias): Low risk – It was not possible to blind participants but this was unlikely to bias results as objective outcomes were measured 4. Blinding of outcome assessment (detection bias): Low risk – Outcomes were adjudicated by a blinded outcomes assessment committee 5. Incomplete outcome data (attrition bias): Low risk – Analysis was performed using an intention-to-treat basis and all participants were accounted for 6. Selective reporting (reporting bias): Low risk – All pre-specified outcomes were reported 7. Other bias: Low risk – none identified Overall risk of bias: Low Directness: directly applicable