

## Appendix F. Subpopulation Evidence Tables

**Appendix F Table 1. Mortality Data for Age Subpopulation in One-Time Screening Trials (KQ1a)**

Author, Year Trial Name Quality	Mean Followup, years	Age Description	Group	N Analyzed	All- Cause Mortality, n (%)*	HR (95% CI)	AAA- Related Mortality, n (%)*	HR (95% CI)	30-Day Mortality, n (%)*	30-Day Mortality for Elective Repairs, n (%)*	30-Day Mortality For Emergency Repairs, n (%)*
Lindholt, 2010 <sup>147</sup>  Viborg  Good	13	≤65 years	IG	2,742	NR	NA	6 (0.2)	0.36 (0.14– 0.93)	NR	NR	NR
			CG	2,687	NR		16 (0.6)		NR	NR	NR
		66–73 years	IG	3,591	NR	NA	13 (0.4)	0.33 (0.18– 0.62)	NR	NR	NR
			CG	3,619	NR		39 (1.1)		NR	NR	NR
		64–73 years Main trial results (see Table 2)	IG	-	-	-	19 (0.3)	0.34 (0.20– 0.57)	-	-	-
			CG	-	-	-	55 (0.9)		-	-	-
McCaul, 2016 <sup>15</sup>  Western Australia  Fair	12.8	65–74 years	IG	13,266	5,456 (41.1)	NR <sup>†</sup>	48 (0.4)	0.92 (0.62– 1.36) <sup>†</sup>	14 (3.7) <sup>‡</sup>	6 (1.6) <sup>§</sup>	8 (57.1) <sup>  </sup>
			CG	13,239	5,501 (41.6)				52 (0.4)	21 (6.9) <sup>‡</sup>	11 (4.0) <sup>§</sup>
		64–83 years Main trial results (see Table 2)	IG	19,249	9,739 (50.6)	NR <sup>†</sup>	90 (0.46)	0.91 (0.68– 1.21) <sup>†</sup>	34 (6.0) <sup>#</sup>	18 (3.4) <sup>**</sup>	16 (61.5) <sup>††</sup>
			CG	19,231	9,832 (51.1)				98 (0.51)	36 (7.9) <sup>#</sup>	17 (4.1) <sup>**</sup>

\* P value for interaction NR.

<sup>†</sup> Rate ratio (95% CI). Rate ratios reported as AAA-related and non-AAA deaths, not available for all-cause mortality.

<sup>‡</sup> N analyzed, IG: 382, CG: 303.

<sup>§</sup> N analyzed for IG: 368, CG: 276.

<sup>||</sup> N analyzed for IG: 14, CG: 27.

<sup>#</sup> N analyzed for IG: 562, CG: 458.

<sup>\*\*</sup> N Analyzed for IG: 536, CG: 414.

<sup>††</sup> N Analyzed for IG: 26, CG: 44.

**Abbreviations:** AAA = abdominal aortic aneurysm; CG = control group; CI = confidence intervals; HR = hazard ratio; IG = intervention group; N = population size; n = sample size; NA = not applicable; NR = not reported.

## Appendix F. Subpopulation Evidence Tables

**Appendix F Table 2. All-Cause and AAA-Related Mortality Data for Smoking Subpopulation in One-Time Screening Trials (KQ1a)\***

Author, Year Trial Name Quality	Age	Outcome	Never Smoked, n (%)	Ever Smoked, n (%)	OR (95% CI)	P-Value for Interaction
McCaul, 2016 <sup>15</sup> Western Australia Fair	64–83 years (screened)	AAA Mortality	4 (0.11)	28 (0.3)	2.95 (1.04–8.43)	NR
		All-cause Mortality	1,310 (36.2)	4,072 (47.4)	1.59 (1.47–1.72)	
	65–74 years (screened)	AAA Mortality	1 (0.04)	15 (0.2)	6.31 (0.83–47.81)	
		All-cause Mortality	707 (26.7)	2,502 (39.7)	1.81 (1.63–2.00)	

\* These outcomes reflect rates in the screened group; there was no outcome reporting by smoking status in the unscreened group for comparison. This subgroup analysis does not address whether screening has a differential benefit in smokers.

**Abbreviations:** AAA = abdominal aortic aneurysm; CG = control group; CI = confidence intervals; IG = intervention group; N = population size; n = sample size; NA = not applicable; NR = not reported; OR = odds ratio.

## Appendix F. Subpopulation Evidence Tables

**Appendix F Table 3. AAA Prevalence, Rupture, and Surgery Data for Age Subpopulations in One-Time Screening Trials (KQ3a)**

Author, Year Trial Name Quality	Mean Followup, years	Description	Group	N Analyzed	AAA Prevalence, n (%)	AAA Rupture, n (%)	HR (95% CI) for AAA Rupture	All AAA Procedures, n (%)	Elective Surgery, n (%)	Emergency Surgery, n (%)	P-Value for Interaction	HR (95% CI) for Emergency Surgery
McCaul, 2016 <sup>15</sup>  Western Australia  Fair	12.8	Age 65–74 years	IG	13,266	785.6 (6.6)	NR	NR	382 (2.9)	368 (2.77)	14 (0.11)*	NR	NR
			CG	13,239	NR	NR		303 (2.3)	276 (2.08)	27 (0.20)*		
		Age 64–83 years Main trial results (see Table 1)	IG	19,249	879 (7.2) <sup>†</sup>	72 <sup>‡</sup>	NR	562 (2.9)	536 (2.78) <sup>§</sup>	26 (0.14)*	NR	NR
			CG	19,231	NR	99		458 (2.4)	414 (2.15)	44 (0.23)*	NR	

\* Total surgery for rupture.

<sup>†</sup> N analyzed for prevalence: 12,203.

<sup>‡</sup> p=0.04.

<sup>§</sup> p<0.001.

**Abbreviations:** AAA = abdominal aortic aneurysm; CG = control group; CI = confidence intervals; HR = hazard ratio; IG = intervention group; N = population size; n = sample size; NA = not applicable; NR = not reported.

## Appendix F. Subpopulation Evidence Tables

**Appendix F Table 4. AAA diameter, rupture, and surgery data for smoking subpopulations in one-time screening trials (KQ3a)**

Author, Year Trial name Quality	Age	Outcome	Never Smoked, n (%)	Ever Smoked, n (%)	OR (95% CI)	P-Value for Interaction
McCaul, 2016 <sup>15</sup>	64–83 years	AAA Diameter ≥3.0 cm	117 (3.24)	758 (8.83)	2.90 (2.37 to 3.53)	NR
		AAA Elective operations	45 (1.24)	360 (4.19)	3.47 (2.54 to 4.75)	
		AAA Ruptures	2 (0.06)	16 (0.19)	3.37 (0.78 to 14.68)	
Western Australia	65–74 years	AAA Diameter ≥3.0 cm	55 (2.08)	496 (7.87)	4.03 (3.04 to 5.34)	
		AAA Elective operations	26 (0.98)	253 (4.01)	4.22 (2.81 to 6.33)	
		AAA Ruptures	1 (0.04)	11 (0.17)	4.63 (0.60 to 35.85)	
Fair						

**Abbreviations:** AAA = abdominal aortic aneurysm; CG = control group; CI = confidence intervals; IG = intervention group; N = population size; n = sample size; NA = not applicable; NR = not reported; OR = odds ratio.

## Appendix F. Subpopulation Evidence Tables

**Appendix F Table 5. All-Cause and AAA Mortality Data for Age Subpopulations in Open vs. Surveillance Trials (KQ4a)**

Study, Year Quality	Mean Followup, years	Description	Treatment Group	N Subgroup	All-Cause Mortality, n (%)	HR (95% CI)	P-Value for Interaction	AAA-Related Mortality, n (%)	HR (95% CI)
Lederle, 2002 <sup>140</sup>  ADAM  Good	4.9	50–59 years	IG	47	8 (17.0)	1.02 (0.38–2.73)*	NR	NR	NR
			CG	51	8 (15.7)			NR	
		60–69 years	IG	251	61 (24.3)	1.34 (0.93–1.93)*		-	-
			CG	279	55 (19.7)			NR	NR
		70–79 years	IG	271	74 (27.3)	1.10 (0.78–1.55)*		NR	NR
			CG	237	59 (24.9)			NR	NR
Powell, 2007 <sup>161-163</sup>  UKSAT  Good	12	60–66 years	IG	176	89 (50.6)	0.73 (0.55–0.99)	0.152	NR	NA
			CG	171	102 (59.6)			NR	
		67–71 years	IG	191	120 (62.8)	0.86 (0.66–1.11)		NR	NA
			CG	190	125 (65.8)			NR	
		72–76 years	IG	196	153 (78.1)	1.08 (0.79–1.38) <sup>†</sup>		NR	NA
			CG	166	125 (75.3)			NR	

\* Relative risk.

<sup>†</sup> Primary adjustments made for age, sex, initial AAA diameter, smoking status, mean of left and right ankle-brachial pressure indexes, forced expiratory volume in 1 sec, and aspirin use.

**Abbreviations:** AAA = abdominal aortic aneurysm; ADAM = Abdominal aortic aneurysm Detection and Management study; CG = control group; CI = confidence interval; HR = hazard ratio; IG = intervention group; N = population size; n = sample size; NR = not reported; RR = relative risk; UKSAT = the UK Small Aneurysm Trial.

## Appendix F. Subpopulation Evidence Tables

**Appendix F Table 6. All-Cause and AAA Mortality Data for Sex Subpopulations in Open vs. Surveillance Trials (KQ4a)**

Study, Year Quality	Mean Followup, years	Description	Treatment Group	N Subgroup	All-Cause Mortality, n (%)	HR (95% CI)	P-Value for Interaction	AAA-Related Mortality, n (%)	HR (95% CI)
Powell, 2007 <sup>161-163</sup>	12	Men	IG	468	299 (63.8)	0.90 (0.76–1.06)*	0.756	NR	NR
			CG	434	284 (65.4)			NR	
UKSAT		Women	IG	95	63 (66.3)	0.89 (0.62–1.28)		NR	NR
			CG	93	68 (73.1)			NR	
Good									

\* Primary adjustments made for age, sex, initial AAA diameter, smoking status, mean of left and right ankle-brachial pressure indexes, forced expiratory volume in 1 sec, and aspirin use.

**Abbreviations:** AAA = abdominal aortic aneurysm; CG = control group; CI = confidence interval; HR = hazard ratio; IG = intervention group; N = population size; n = sample size; NR = not reported; RR = relative risk; UKSAT = the UK Small Aneurysm Trial.

## Appendix F. Subpopulation Evidence Tables

**Appendix F Table 7. All-Cause Mortality Data for Smoking Subpopulations in Open vs. Surveillance Trials (KQ4a)**

Study, Year Quality	Mean Followup, years	Description	N Subgroup	All-Cause Mortality, n (%)	HR (95% CI) <sup>†, ‡</sup>	P-Value for Interaction
Powell, 2007 <sup>161-163</sup>	10*	Current Smoker (at baseline)	404	204 (50.5)	1.25 (1.03–1.53)	NR
UKSAT		Former Smoker	620	259 (41.8)	1.00	
		Never Smoker	64	32 (50.0)	1.30 (0.88–1.92)	
Good						

\*Data are from Powell 2002.<sup>161</sup>

<sup>†</sup> HRs and P-values determined by Cox proportional hazards regression analysis and adjusted for baseline age, sex, smoking status, aneurysm diameter, average of left and right ankle-brachial pressure indexes, forced expiratory volume in 1 sec, and use or nonuse of aspirin.

<sup>‡</sup> This subgroup analysis reports all-cause mortality HRs by smoking status in the entire study population. It does not provide outcomes by IG and CG in smokers and nonsmokers so does not provide comparisons to determine if there is a differential treatment effect of early surgery by smoking status.

**Abbreviations:** AAA = abdominal aortic aneurysm; CG = control group; CI = confidence interval; HR = hazard ratio; IG = intervention group; N = population size; n = sample size; NR = not reported; RR = relative risk; UKSAT = the UK Small Aneurysm Trial.