

Appendix 2. Evidence table

Author, year, reference	Design	Scope	Participants	Type of surgery	SSI definition	Antibiotic used	Duration and re-dosing	Antibiotic continuation	Timing categories	Results	SSI rate (%)	Adjusted odds ratio (95% CI)	Risk of bias NOS	Included in comparison
Classen 1992 (2)	OBS-P	Single centre	2847	Hysterectomy, cholecystectomy, bowel resection, gastric bypass, hip, knee.	NA	Cefazolin; cefonicid; cefoxitin; cefamandole	NA	24-48 hours	-24-2 hours - 2-0 hours +0-3 hours +3-24 hours	14/369 10/1708 4/282 16/488	3.8 0.6 1.4 3.3	4.3 (1.8-10.4) 1 2.1 (0.6-7.4) 5.8 (2.4-13.8)	7	1,2,3a
Munoz 1995 (15)	OBS-P	Single centre	2083	Clean-contaminated, contaminated and clean.	CDC	Cefazolin; clindamycin + gentamicin; gentamicin + metronidazole; ceftriaxone; ceftizoxime; cefotaxime; cefoxitin + gentamicin, cefoxitin.	NA	NA	- >2 hours - <2 hours +:	24/107 28/754 94/1222	22.4 3.7 7.7	5.82 (3.12-10.84) 1 3.32 (2.04-5.1)	7	2
Lizán-García 1997 (14)	OBS-P	Single centre	1983	Clean, clean-contaminated, contaminated, dirty..	CDC	According to the hospital clinical infections commission	109-146 min; no information on redosing	NA	- >2 hours - <2 hours	5/8 249/197 5	62,5 12.6	5.28 (1.56-17.93) 1	7	2

Trick 2000 (19)	CCTRL	Single centre	120	CABG	CDC DSSI	Cefuroxime	244-252 min; no information on redosing.	NA	- >2 hours - <2 hours			5 (1.4-17) 1	7	
Garey 2006 (18)	OBS-P	Single centre	2048	CABG +valve replacement	CDC	Vancomycin	NA	24 hours	->180 min -121-180 min -61-120 min -16-60 min -0-15 min	21/629 48/700 68/888 6/176 4/15	7.8 6.9 7.7 3.4 26.7	2.1 (0.82-5.62) 2.6 (1.1-6.2) 2.3 (0.98-5.61) 1 11.6 (2.6-24.7)	7	3a
Kasatbipal 2006 (16)	OBS-P	Multi-centre	1972	Open uncomplicated appendectomy	CDC	Metronidazole + gentamicin	<1 hour	24 hours	->1hour: -<1h - intra + None	8/1004 9/814 4/154 5/167	0.7 1.2 2.6 3	0.22 (0.07-0.70) 0.33 (0.11-1.02) 0.78 (0.20-3) 1	7	3
van Kasteren 2007 (13)	OBS-P	Multi-centre	1922	Hip and knee arthroplasty	CDC	Flucloxacillin; erythromycin; clindamycin; cefamandole; amoxicillin; gentamicin	77 min	Yes	->60 min -31-60 min -1-30 min +	5/115 14/538 25/1143 6/126	4.4 2.6 2.2 4.8	1.3 (0.4-4.4) 0.9 (0.4-2.1) 1 2.8 (0.9-8.6)	7	1,3a,3b
Weber 2008 (17)	OBS-P	Single centre	3836	Visceral, vascular, trauma	CDC	Cefuroxim + metronidazole	No information on duration or redosing	Yes	-75-120 min -60-74 min -45-59 min -30-44	15/201 9/263 12/496 33/991 72/1054 39/831	7.5 3.4 2.4 3.3 6.8 4.7	3.16 (1.4-7.0) 1 1 1 2.82 (1.5-5.3)	8	3a,3b

									min -15-29 min -0-14 min			1.75 (0.9-3.4)		
Steinberg 2009 (12)	OBS-P	Single centre	3656	Cardiac, hysterectomy, hip and knee, arthroplasty	CDC	Cephalo- sporins and other short infusion time antibiotics	Re-dosing >4 hours	12-24 hours	- >120 min - 61-120 min - 31-60 min - 0-30 min + 1-30 min + >31 min	4/96 12/489 38/1558 22/1339 4/100 5/74	4.1 2.5 2.4 1.6 4 6.8	2.11 (0.68-6.59) 1.25 (0.57-2.76) 1.74 (0.98-3.08) 1 1.96 (0.65-5.95) 4.18 (1.37-12.75)	8	1,3a,3b
Ho 2011 (11)	OBS-R	Single centre	605	Colon and rectal surgery with anastomosis	CDC	Cefazolin + metronidazole ; cefoxitin; fluoro- quinolone + metronidazole	Re- dosing, duration 3.67 min	24 hours	- >30 min - <30 min +			1.72 (1.15-2.6) 1 0.89 (0.35-2.31)	7	1,3b
Koch 2012 (20)	OBS-P	Single centre	28250	Cardiac surgical procedures involving median sternotomy	STS	Cefuroxime; vancomycin	NA	36 hours	-75 -60 -45 -30 -15 0 +15		- 3.7/ 4.6* - 2.8/ 3.2* - 2.2/ 2.2* -1.9/ 1.8* -1.8 / 2.1* - 2.0 / 2.6* - 2.4 /		6	

											3.3*				
El-Mahalla wy 2013 (22)	OBS-P	Single centre	200	Cystectomy, gastrostomy , colorectal surgery	CDC	Penicillin +gentamicin; clindamycin + amikacin	Redose >2 hours; duration 3-4 hours	NA	- > 30 min - < 30 min	12/92 7/108	15 6.9			5	
Koch 2013 (21)	OBS-P	Single centre	4453	General surgery	NSQIP	Cefazolin; ampicillin; ceftizoxime; metronidazole ; ciprofloxacin	Duration< 4 hours; no redosing	NA	- 0-30 min - 30-60 min	284/314 0 129/109 9	9 11,7			8	

SSI: surgical site infection; -[time]: prior to incision; +[time] : after incision; + : after surgery; NOS = Newcastle-Ottawa Scale, OBS-P: prospective observational cohort; OBS-R: retrospective observational cohort; CCTRL: case-control study; CDC: Centers for Disease Control and Prevention; CABG: coronary artery bypass graft; CI: confidence interval; DSSI: deep sternal site infection; STS: Society of Thoracic Surgeons; NA: not available; NSQIP: national surgical quality improvement programme; *: second value within this cell represents the vancomycin timing group.