

**Appendix 2 (as supplied by the authors):** Univariate associations for pre- and post-discharge surgical site infection following Caesarean section

Risk factor	No SSI, no.	Pre-discharge SSI		Post-discharge SSI	
		No.	Unadjusted OR (95% CI)	No.	Unadjusted OR (95% CI)
<b>Institution-related</b>					
Number of Caesarean sections in the delivery hospital, per year (n=33,991)					
<130	8364	53	Reference	109	Reference
130-949	7107	126	2.80 (2.02-3.88)	160	1.73 (1.34-2.22)
950-1249	9133	146	2.52 (1.83-3.47)	175	1.47 (1.15-1.88)
≥1250	8464	59	1.10 (0.76-1.60)	95	0.86 (0.65-1.14)
<b>Area-level</b>					
Region of maternal residence (n=33,991)					
A	15584	172	Reference	252	Reference
B	5880	105	1.62 (1.26-2.07)	112	1.18 (0.94-1.48)
C	6135	62	0.92 (0.68-1.23)	101	1.02 (0.80-1.29)
D	5469	45	0.75 (0.53-1.04)	74	0.84 (0.64-1.09)
Quintile of neighbourhood-level income (n=33,267)					
1 (lowest)	6441	98	1.43 (1.13-1.82)	164	1.92 (1.57-2.35)
2	5842	70	1.13 (0.86-1.48)	103	1.33 (1.06-1.67)
3-5	20070	213	Reference	266	Reference
Maternal residence (n=33,971)					
Urban	22978	282	Reference	373	Reference
Rural	10071	101	0.82 (0.65-1.03)	166	1.02 (0.84-1.22)
<b>Maternal Demographics</b>					
Maternal age, years (n=33,991)					
<25	6077	84	1.31 (1.02-1.69)	144	1.61 (1.31-1.97)
25-34	20392	215	Reference	301	Reference
≥35	6599	85	1.22 (0.95-1.58)	94	0.97 (0.76-1.22)
Pre-pregnancy weight, kg (n=33,991)					

Risk factor	No SSI, no.	Pre-discharge SSI		Post-discharge SSI	
		No.	Unadjusted OR (95% CI)	No.	Unadjusted OR (95% CI)
<53	2680	28	1.09 (0.71-1.66)	35	1.22 (0.83-1.79)
53-66.9	9787	94	Reference	105	Reference
67-76.9	5553	51	0.96 (0.68-1.35)	85	1.43 (1.07-1.90)
77-86.9	3976	46	1.20 (0.85-1.72)	62	1.45 (1.06-2.00)
87-97.9	2548	37	1.51 (1.03-2.22)	49	1.79 (1.27-2.53)
≥98	3043	73	2.50 (1.83-3.41)	114	3.49 (2.65-4.59)
Missing	5481	55	1.04 (0.75-1.46)	89	1.51 (1.14-2.01)
<b>Marital status (n=33,991)</b>					
Married/common-law	24102	255	Reference	332	Reference
Single/divorced/separated/widowed	7286	113	1.47 (1.17-1.84)	174	1.73 (1.44-2.09)
Missing	1680	16	0.90 (0.54-1.49)	33	1.43 (0.99-2.04)
<b>Smoking during pregnancy (n=33,708)</b>					
No	25820	285	Reference	366	Reference
Yes	6973	97	1.26 (1.00-1.59)	167	1.69 (1.40-2.03)
<b>Alcohol or drug abuse during pregnancy (n=33,991)</b>					
No	32621	374	Reference	523	Reference
Yes	447	10	1.95 (1.03-3.68)	16	2.23 (1.35-3.70)
<b>Maternal medical conditions</b>					
<b>Non-obstetric pre-existing health conditions affecting pregnancy (n=33,991)</b>					
No	26761	280	Reference	401	Reference
Yes	6307	104	1.58 (1.25-1.98)	138	1.46 (1.20-1.78)
<b>Hypertension (n=33,991)</b>					
No	28719	303	Reference	435	Reference
Pre-existing	515	10	1.84 (0.97-3.48)	13	1.67 (0.95-2.92)
Gestational or unspecified	2605	43	1.56 (1.13-2.16)	67	1.70 (1.31-2.20)
Preeclampsia	1229	28	2.16 (1.44-3.23)	24	1.29 (0.85-1.95)
<b>Diabetes (n=33,991)</b>					
No	30955	341	Reference	478	Reference

Risk factor	No SSI, no.	Pre-discharge SSI		Post-discharge SSI	
		No.	Unadjusted OR (95% CI)	No.	Unadjusted OR (95% CI)
Pre-existing	203	6	2.68 (1.18-6.10)	5	1.60 (0.65-3.89)
Gestational	1910	37	1.76 (1.25-2.48)	56	1.90 (1.43-2.52)
<b>Anemia during pregnancy (n=33,991)</b>					
No	30551	352	Reference	485	Reference
Yes	2517	32	1.10 (0.77-1.59)	54	1.35 (1.01-1.80)
<b>Depression during pregnancy (n=33,991)</b>					
No	31592	364	Reference	502	Reference
Yes	1476	20	1.18 (0.75-1.85)	37	1.58 (1.12-2.23)
<b>Anticoagulation therapy during pregnancy (n=33,991)</b>					
No	32774	372	Reference	528	Reference
Yes	294	12	3.60 (1.91-6.76)	11	2.32 (1.26-4.27)
<b>Maternal influenza vaccination during pregnancy (n=33,991)</b>					
No	32105	378	Reference	523	Reference
Yes	963	6	1.89 (0.84-4.24)	16	0.98 (0.59-1.62)
<b>Pregnancy history</b>					
<b>Parity (n=33,991)</b>					
Primiparous	16268	212	Reference	333	Reference
Multiparous	16800	172	0.79 (0.64-0.96)	206	0.60 (0.50-0.71)
<b>Mode of delivery in last pregnancy (n=33,991)</b>					
Not applicable	18188	228	Reference	361	Reference
Vaginal	4187	51	0.97 (0.72-1.32)	60	0.72 (0.55-0.95)
Caesarean section	10693	105	0.78 (0.62-0.99)	118	0.56 (0.45-0.69)
<b>Number of previous Caesarean sections (n=33,991)</b>					
None	20748	264	Reference	399	Reference
One	9695	95	0.77 (0.61-0.97)	104	0.56 (0.45-0.69)
Two or more	2625	25	0.75 (0.49-1.15)	36	0.71 (0.50-1.01)
<b>SSI after previous Caesarean section (n=33,991)</b>					
No	32731	378	Reference	530	Reference

Risk factor	No SSI, no.	Pre-discharge SSI		Post-discharge SSI	
		No.	Unadjusted OR (95% CI)	No.	Unadjusted OR (95% CI)
Yes	337	6	1.54 (0.68-3.47)	9	1.65 (0.79-3.43)
<b>Pregnancy characteristics</b>					
Weight gain during pregnancy, kg (n=33,991)					
<10	5493	63	1.11 (0.82-1.49)	95	1.13 (0.89-1.44)
10-19.9	13875	144	Reference	212	Reference
20-29.9	4480	61	1.31 (0.97-1.77)	81	1.18 (0.92-1.53)
≥30	615	18	2.82 (1.72-4.62)	20	2.13 (1.34-3.39)
Missing	8605	98	1.10 (0.85-1.42)	131	1.00 (0.80-1.24)
Chorioamnionitis during pregnancy (n=33,991)					
No	32383	359	Reference	508	Reference
Yes	685	25	3.29 (2.18-4.97)	31	2.88 (1.99-4.17)
Diagnostic and/or therapeutic procedure(s) performed on mother (n=33,991)					
No	32112	372	Reference	513	Reference
Yes	956	12	1.08 (0.61-1.93)	26	1.70 (1.14-2.53)
Steroid use ≥48 hrs before delivery for fetal lung maturity (n=33,991)					
None	31919	355	Reference	518	Reference
Yes	1149	29	2.27 (1.53-3.37)	21	1.13 (0.72-1.75)
Cervical dilation in the last examination before Caesarean section, cm (n=33,130)					
None	16758	167	Reference	179	Reference
1-3	3371	39	1.16 (0.82-1.65)	74	2.06 (1.56-2.70)
4-10	12104	167	1.38 (1.11-1.72)	271	2.10 (1.73-2.54)
Time between rupture of membranes to delivery, hrs (n=33,690)					
<1	16501	169	Reference	201	Reference
2-11	8044	103	1.25 (0.98-1.60)	151	1.54 (1.25-1.91)
≥12	8228	111	1.32 (1.03-1.68)	182	1.82 (1.48-2.23)
Stage of labour before Caesarean section (n=33,990)					
None	16225	160	Reference	179	Reference
First	10478	134	1.30 (1.03-1.63)	220	1.90 (1.56-2.33)

Risk factor	No SSI, no.	Pre-discharge SSI		Post-discharge SSI	
		No.	Unadjusted OR (95% CI)	No.	Unadjusted OR (95% CI)
Second	6364	90	1.43 (1.10-1.86)	140	1.99 (1.60-2.49)
Spontaneous rupture of membranes (n=33,646)					
Yes	9116	121	Reference	165	Reference
No	23614	261	0.32 (0.67-1.04)	369	0.86 (0.72-1.04)
<b>Delivery</b>					
Length of antepartum stay, hrs (n=33,969)					
<24	27786	289	Reference	433	Reference
24-49	3029	44	1.40 (1.01-1.93)	55	1.17 (0.88-1.55)
≥50	2231	51	2.20 (1.63-2.97)	51	1.47 (1.09-1.97)
Year of delivery (n=33,991)					
1997-2000	7045	176	5.08 (3.62-7.13)	170	1.38 (1.10-1.73)
2001-2004	8672	102	2.39 (1.67-3.43)	90	0.60 (0.46-0.78)
2005-2008	8806	64	1.48 (1.00-2.18)*	130	0.85 (0.67-1.08)
2009-2012	8545	42	Reference	149	Reference
Delivering on a weekend (n=33,991)					
No	27441	309	Reference	432	Reference
Yes	5627	75	1.18 (0.92-1.52)	107	1.21 (0.98-1.49)
Primary indication for Caesarean section (n=33,991)					
Breech	4471	43	1.00 (0.70-1.45)	66	1.54 (1.12-2.12)
Dystocia	8602	128	1.55 (1.18-2.03)	183	2.22 (1.73-2.86)
Fetal distress	5066	63	1.30 (0.94-1.79)	113	2.33 (1.76-3.08)
Other	5120	56	1.14 (0.94-1.79)	83	1.69 (1.25-2.29)
Previous Caesarean section	9809	94	Reference	94	Reference
Regional anesthesia during labour or delivery (n=33,991)					
No	2100	31	Reference	39	Reference
Yes	30968	353	0.77 (0.53-1.16)	500	0.87 (0.63-1.21)
Antibiotic therapy during labour and delivery (n=33,991)					
Yes	20909	190	Reference	320	Reference

Risk factor	No SSI, no.	Pre-discharge SSI		Post-discharge SSI	
		No.	Unadjusted OR (95% CI)	No.	Unadjusted OR (95% CI)
No	12159	194	1.76 (1.43-2.15)	219	1.18 (0.99-1.40)
<b>Maternal blood transfusion (n=33,991)</b>					
No	32749	373	Reference	523	Reference
Yes	319	11	3.03 (1.65-5.56)	16	3.14 (1.89-5.22)
<b>Season of delivery (n=33,991)</b>					
December-February	7474	91	1.10 (0.82-1.47)	110	0.85 (0.66-1.09)
March-May	8525	95	1.01 (0.76-1.34)	143	0.97 (0.77-1.22)
June-August	8659	96	Reference	150	Reference
September-November	8410	102	1.09 (0.83-1.45)	136	0.93 (0.74-1.18)
<b>Type of Caesarean section (n=33,991)</b>					
Low segment transverse	32338	374	Reference	528	Reference
Other	730	10	1.18 (0.63-2.23)	11	0.92 (0.51-1.69)
<b>Instrumentation used during Caesarean section (n=33,991)</b>					
No	30492	347	Reference	496	Reference
Forceps or vacuum	2576	37	1.26 (0.90-1.77)	43	1.03 (0.75-1.40)
<b>General anesthesia during labour or delivery (n=33,991)</b>					
No	30301	344	Reference	477	Reference
Yes	2767	40	1.27 (0.92-1.77)	62	1.42 (1.09-1.85)
<b>Other procedures performed during Caesarean section (n=33,991)</b>					
No	26875	312	Reference	444	Reference
Yes	6193	72	1.00 (0.77-1.29)	95	0.93 (0.74-1.16)
<b>Fetal and neonatal</b>					
<b>Infant birth weight, g (n=33,967)</b>					
<2,500	2235	41	1.69 (1.21-2.36)	31	0.88 (0.61-1.26)
2500-3900	29186	317	Reference	462	Reference
≥4000	1626	26	1.47 (0.98-2.20)	43	1.67 (1.20-2.32)
<b>Apgar score at 5 minutes (n=33,794)</b>					
0-6	619	12	1.68 (0.94-3.01)	21	2.12 (1.36-3.31)

Risk factor	No SSI, no.	Pre-discharge SSI		Post-discharge SSI	
		No.	Unadjusted OR (95% CI)	No.	Unadjusted OR (95% CI)
7-10	32256	371	Reference	515	Reference
Gestational age, weeks (n=33,873)					
<37	3195	64	1.96 (1.47-2.62)	57	1.31 (0.98-1.75)
37-39 <sup>+6</sup>	18900	193	Reference	257	Reference
≥40	10858	125	1.13 (0.90-1.41)	224	1.52 (1.27-1.81)
Breastfeeding at discharge (n=33,677)					
Yes	23129	243	Reference	329	Reference
No	9645	137	1.35 (1.09-1.67)	194	1.41 (1.18-1.69)
Presentation at delivery (n=33,991)					
Other	8906	100	0.96 (0.76-1.22)	160	1.17 (0.97-1.41)
Vertex	22243	259	Reference	342	Reference
Missing	1919	25	1.12 (0.74-1.69)	37	1.25 (0.89-1.77)
Number of fetuses (n=33,991)					
Singleton	31992	357	Reference	527	Reference
Multiples	1076	27	2.25 (1.51-3.34)	12	0.68 (0.38-1.20)
Diagnostic and/or therapeutic procedure(s) performed on fetus (n=33,991)					
No	31702	366	Reference	517	Reference
Yes	1366	18	1.14 (0.71-1.83)	22	0.99 (0.64-1.52)

Note: CI=confidence interval, OR=odds ratio, SSI=surgical site infection

\*95% CI = 1.004-2.18