

**Supplementary Table S3.** Sensitivity analysis on the association between blastocyst grading and multiple births.

Outcomes	Overall blastocyst grading			ICM grading			TE grading		
	Good (N = 1946)	Moderate (N = 1443)	Low (N = 858)	A (N = 1667)	B (N = 2384)	C (N = 196)	A (N = 1368)	B (N = 2201)	C (N = 678)
<b>Multiple birth</b>	19 (1.0%)	34 (2.4%)	15 (1.8%)	14 (0.8%)	53 (2.2%)	1 (0.5%)	15 (1.1%)	39 (1.8%)	14 (2.1%)
<b>Crude OR</b>	Reference	<b>2.45</b> (1.39–4.31)	1.80 (0.91–3.57)	Reference	<b>2.68</b> (1.48–4.85)	0.61 (0.08–4.63)	Reference	1.63 (0.89–2.96)	1.90 (0.91–3.96)
<b>Adjusted OR</b>	Reference	1.96 (0.93–4.11)*	1.60 (0.64–4.01)*	Reference	<b>2.41</b> (1.08–5.38)**	0.69 (0.07–6.47)**	Reference	0.93 (0.48–1.83)***	0.91 (0.38–2.13)***

\* Adjusted for institute, female age, fresh/frozen transfer, blastocyst developmental stage, blastocyst age.

\*\* Adjusted for institute, female age, fresh/frozen transfer, blastocyst developmental stage, blastocyst age, TE grade.

\*\*\* Adjusted for institute, female age, fresh/frozen transfer, blastocyst developmental stage, blastocyst age, ICM grade.

Live birth was the unit of analysis in this sensitivity analysis.

Bold values refer to statistically significant results.