

**eTable: Association between patient and treatment characteristics and the likelihood of livebirth (Adjusted odds ratios \* (95% confidence intervals)) from four regression models (n = 2318 couples, 3913 IVF cycles), with additional adjustment for all covariates evaluated.**

Covariate	First cycle only <sup>†</sup>	Discrete survival <sup>‡</sup>	GEE <sup>#</sup>	Mixed effects <sup>**</sup>
Previous livebirth				
No	1.00 ( referent )	1.00 ( referent )	1.00 ( referent )	1.00 ( referent )
Yes	1.45 (1.14,1.84)	1.31 (1.09,1.58)	1.34 (1.10,1.63)	1.40 (1.06,1.83)
Female age				
<35 years	1.00 ( referent )	1.00 ( referent )	1.00 ( referent )	1.00 ( referent )
35-37 years	0.92 (0.70,1.22)	0.96 (0.78,1.18)	0.97 (0.78,1.21)	0.98 (0.77,1.24)
38-40 years	0.57 (0.41,0.80)	0.63 (0.49,0.80)	0.63 (0.48,0.81)	0.61 (0.42,0.88)
>40 years	0.24 (0.15,0.39)	0.23 (0.16,0.33)	0.24 (0.16,0.34)	0.21 (0.09,0.48)
Primary Diagnosis				
Idiopathic	1.00 ( referent )	1.00 ( referent )	1.00 ( referent )	1.00 ( referent )
Male	1.23 (0.92,1.65)	1.09 (0.88,1.35)	1.08 (0.87,1.35)	1.14 (0.88,1.46)
Female	0.91 (0.70,1.17)	0.93 (0.77,1.13)	0.92 (0.76,1.13)	0.92 (0.74,1.15)
Gonadotrop. dose/10	0.84 (0.77,0.91)	0.90 (0.85,0.94)	0.89 (0.85,0.94)	0.86 (0.79,0.94)
Down regulation				
No	1.00 ( referent )	1.00 ( referent )	1.00 ( referent )	1.00 (referent)
Yes	1.34 (1.00,1.80)	1.25 (1.02,1.52)	1.30 (1.06,1.58)	1.36 (1.04,1.78)
ICSI	0.79 (0.60,1.04)	0.93 (0.77,1.14)	0.93 (0.77,1.13)	0.85 (0.68,1.08)
Embryos transferred	1.29 (1.16,1.43)	1.23 (1.15,1.32)	1.22 (1.15,1.30)	1.21 (1.07,1.37)
Cycle # (Cox only)				
Cycle 1		1.00 ( referent )		
Cycle 2		0.86 (0.72,1.03)		
Cycle 3		0.68 (0.52,0.89)		
Cycle 4		0.69 (0.47,1.02)		
Cycle 5		0.59 (0.31,1.10)		
Cycle 6		---		
Male age				
<35 years	1.00 ( referent )	1.00 ( referent )	1.00 ( referent )	1.00 ( referent )
35-37 years	0.92 (0.70,1.21)	1.04 (0.85,1.28)	1.03 (0.83,1.28)	1.05 (0.83,1.33)
38-40 years	0.86 (0.63,1.18)	0.80 (0.63,1.02)	0.80 (0.62,1.03)	0.78 (0.58,1.04)
>40 years	0.85 (0.61,1.17)	0.86 (0.67,1.10)	0.85 (0.66,1.10)	0.84 (0.63,1.13)
BMI				
<20	1.00 ( referent )	1.00 ( referent )	1.00 ( referent )	1.00 ( referent )
20-24.9	1.08 (0.81,1.45)	1.11 (0.89,1.38)	1.11 (0.89,1.39)	1.14 (0.88,1.47)
25-29.9	1.02 (0.72,1.45)	1.13 (0.87,1.46)	1.11 (0.85,1.46)	1.16 (0.85,1.57)
≥30	1.06 (0.70,1.60)	1.05 (0.76,1.43)	1.05 (0.76,1.45)	1.09 (0.76,1.56)
Cycle E2/1000	1.03 (0.89,1.19)	1.00 (0.90, 1.12)	1.01 (0.91,1.13)	1.01 (0.90,1.15)

Oocytes retrieved	1.00 (0.98, 1.02)	1.00 (0.99, 1.02)	1.00 (0.99,1.02)	1.00 (0.99,1.02)
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\* All models were also adjusted for clinic site and study enrollment period.

† Multivariate logistic regression using first-cycle data only, n = 2092 couples, 2092 cycles.

‡ Discrete survival, a.k.a. Cox proportional odds model, fit using Proc Logistic including cycle number as a class variable.

# Generalized estimating equations, using empirical estimates for standard errors and exchangeable working correlation, fit using Proc Genmod.

\*\* Mixed effects model, using the logit link and Gaussian random intercept, fit using Proc NL Mixed.