

Appendix 1 Search strategy

CENTRAL via the Cochrane Register of Studies Online (CRSO)

- #1 MESH DESCRIPTOR Reproductive Techniques, Assisted EXPLODE ALL TREES
- #2 (assisted reproduct* techn*):TI,AB,KY
- #3 embryo*:TI,AB,KY
- #4 blastocyst*:TI,AB,KY
- #5 (vitro fertili?ation):TI,AB,KY
- #6 (intracytoplasmic sperm injection*):TI,AB,KY
- #7 (ivf or icsi):TI,AB,KY
- #8 (ovari* adj2 stimulation):TI,AB,KY
- #9 (in vitro adj2 maturation*):TI,AB,KY
- #10 MESH DESCRIPTOR Infertility EXPLODE ALL TREES
- #11 (infertil* or subfertil*):TI,AB,KY
- #12 ((elevated or high or raise* or rise) adj2 progesterone):TI,AB,KY
- #13 MESH DESCRIPTOR Ovarian Hyperstimulation Syndrome EXPLODE ALL TREES
- #14 (ovarian hyperstimulation syndrome):TI,AB,KY
- #15 OHSS:TI,AB,KY
- #16 (implantation failure*):TI,AB,KY
- #17 (preimplantation genetic screening):TI,AB,KY
- #18 (high responder*):TI,AB,KY
- #19 #1 OR #2 OR #3 OR #4 OR #5 OR #6 OR #7 OR #8 OR #9 OR #10 OR #11 OR #12 OR #13
OR #14 OR #15 OR #16 OR #17 OR #18
- #20 MESH DESCRIPTOR Cryopreservation EXPLODE ALL TREES
- #21 MESH DESCRIPTOR Vitrification EXPLODE ALL TREES
- #22 MESH DESCRIPTOR Freezing EXPLODE ALL TREES
- #23 ((cryopreservat* or cryofixation or cryonic suspension)):TI,AB,KY
- #24 (freez* or frozen):TI,AB,KY
- #25 Vitrif*:TI,AB,KY

- #26 Thaw*:TI,AB,KY
- #27 (cryopreserv* or cryofix*):TI,AB,KY
- #28 cryonic :TI,AB,KY
- #29 #20 OR #21 OR #22 OR #23 OR #24 OR #25 OR #26 OR #27 OR #28
- #30 #19 AND #29

Appendix 2 Variable list

Variable	Variable type	Notes
IDs		
Centre ID		For multi-centre trials only
Randomisation		
Randomisation	Categorical	Frozen/fresh
Date of randomisation	Continuous	DD-MM-YYYY
Demographics/baseline		
Female age	Continuous	In years
Ethnicity	Categorical	
Duration of infertility	Continuous	In months
Type of infertility	Categorical	Primary/secondary
Female BMI	Continuous	Kg/m ²
	Continuous	
	Or	
Menstrual cycle	categorical	Days Or regular/irregular
Cause of infertility:	Categorical	Yes/no for each cause
1 Ovulatory	Categorical	
2 Tubal	Categorical	
3 Male	Categorical	
4 Unexplained	Categorical	
5 Endometriosis	Categorical	
PCOS/WHO II anovulation	Categorical	Yes/no
Smoker	Categorical	Current/past/never smoker
IVF cycle number	Continuous	1/2/3/...
Baseline AMH levels	Continuous	Ng/ml (1ng/ml= 7.1429pmol/L)
Baseline antral follicle count	Continuous	
Ovarian stimulation		
Ovarian stimulation protocol	Categorical	Long/short/ultrashort/antagonist
Total dose of gonadotrophins	Continuous	IU
Trigger	Categorical	Agonist/hCG/dual trigger
Progesterone level on day of HCG	Continuous	ng/ml (1ng/ml=3.18 nmol/L)
Oocyte collection		
Number of oocytes collected	Continuous	
Date of oocyte collection	Continuous	DD-MM-YYYY
Fertilisation		
Insemination method	Categorical	IVF/ICSI/split
Number of 2PN	Continuous	

Number of good quality embryos	Continuous	defined by ACE/BFS scoring- 6 to 8 cells minimum on day 3
Embryo transfer		
Actual intervention received	Categorical	Fresh/frozen
Date of embryo transfer	Continuous	YY-MM-YYYY
Stage of embryo transfer	Categorical	cleavage or blastocyst
Number of embryo transferred	Continuous	0/1/2/3
Quality of each transferred embryo	Categorical	Embryo quality
Endometrial thickness on the day of hCG	Continuous	mm (or on the last USG prior to ET for the frozen group)
Endometrial pattern	Categorical	trilaminar, opaque, not measured
Embryo freezing		
Number of spare embryos frozen	Continuous	For the fresh group only
Number of embryos frozen	Continuous	For the frozen group only
Stage of freezing	Categorical	cleavage or blastocyst
Method of freezing	Categorical	Vitrification/slow freezing
Endometrial preparation	Categorical	For the frozen group only, natural/modified/HRT-short/HRT-long
Number of embryos thawed	Continuous	
Luteal support (progesterone type)	Categorical	No/IM/Oral/Vaginal/Dydrogesterone/Mixed/Other
Does of progesterone per day	Continuous	
Duration of progesterone	Continuous	Days
Additional notes	String	
Fertility outcomes		
Live birth	Categorical	Yes/no
Healthy baby	Categorical	Yes/no (defined as term (>37 weeks) singleton live birth with appropriate weight for gestation. Appropriate weight will be determined by plotting weight against the gestational age on the standardised ethnicity-based growth charts)
Pregnancy	Categorical	Yes/no (hCG positive)
Clinical pregnancy	Categorical	Yes/no (Viable pregnancy confirmed by ultrasound)
Pregnancy loss:	Categorical	Yes/no
- ectopic pregnancy	Categorical	Yes/no
- miscarriage	Categorical	Yes/no
- stillbirth	Categorical	Yes/no
- termination of pregnancy	Categorical	Yes/no
Multiple pregnancy:	Categorical	Yes/no
Twin	Categorical	Yes/no

High-order (triplet or more)	Categorical	Yes/no
Gestational age at delivery	Continuous	Days (or x weeks + y days)
Obstetric outcomes		
Hypertensive disorders of pregnancy	Categorical	Yes/no (comprising pregnancy induced hypertension, pre-eclampsia and eclampsia)
- preeclampsia	Categorical	Yes/no
Antepartum haemorrhage	Categorical	Yes/no
- placenta praevia	Categorical	Yes/no
- placenta accrete	Categorical	Yes/no
- unexplained	Categorical	Yes/no
Postpartum haemorrhage	Categorical	Yes/no
Other maternal safety outcomes:		
OHSS	Categorical	No/mild/moderate/severe (RCOG green top guidance)
Neonatal outcomes#		
Birthweight	Continuous	Grams
Neonatal mortality	Categorical	Yes/no
Major congenital anomaly	Categorical	Yes/no
- if yes, specify		Detailed description
Admission to neonatal intensive care unit	Categorical	Yes/no
Cumulative outcomes (till the first live delivery)*		
Cumulative live birth	Categorical	Yes/no
Date of the last embryo transfer or the embryo transfer resulting in live birth	Continuous	DD-MM-YYYY
Follow up		
Withdrew consent	Categorical	Categorical
- if yes, date	Continuous	DD-MM-YYYY
Loss to follow up	Categorical	Categorical
- if yes, date	Continuous	DD-MM-YYYY

Footnotes: #For multiple birth, neonatal outcomes will be collected for each infant separately.