## Supplementary Table 8. Effectiveness: pregnancy rate

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Review** | **Treatment Characteristics** | **Study Groups** | **Subgroups** | **Number of studies** | **Pregnancy rate per woman or couple** | | | | **Heterogeneity** | |
| **n/N** | **%** | **Odds Ratio**  **(95% CI)** | **P-value** | **I2 (%)** | **P-value** |
| **Maternal age** | | | | | | | | | | |
| Van Loendersloot et al. (2010)  *Meta-analysis* | • Fresh, autologous IVF/ICSI with cleavage stage (day 2-3) embryos  • 1-9 embryos per cycle  • 1 or more cycles per woman/couple | Each year increase in maternal age | Clinical and/or ongoing pregnancy | 10 | nr | nr | 0.95 (0.94, 0.96) | nr (sig.) | 0% | nr (not sig.) |
| **Maternal weight/BMI** | | | | | | | | | | |
| Jungheim et al. (2013)  *Meta-analysis* | • Fresh donor IVF  • 1 cycle per woman/couple | BMI <20 | Clinical pregnancy | 5 | nr | nr | 1.03 (0.93, 1.15) | nr (not sig.) | 44.8% | nr |
| BMI 20-24.9 (ref.) | nr | nr | - |  |  |  |
| BMI 25-29.9 | nr | nr | 0.94 (0.88, 1.01) | nr (not sig.) | 0% | nr |
| BMI >30 | nr | nr | 0.98 (0.83, 1.15) | nr (not sig.) | 61.6% | nr |
| Koning et al. (2012)  *Meta-analysis* | • Fresh or frozen, autologous or donor with cleavage or blastocyst stage embryos  • 1->4 embryos per cycle  • 1 cycle per woman/couple | BMI ≤25 (ref.) | Clinical pregnancy | 9 | nr | nr | 0.94 (0.69, 1.30) | nr (not sig.) | nr | nr |
| BMI >25 | nr | nr |
| BMI ≤30 (ref.) |  | 9 | nr | nr | 0.97 (0.59, 1.60) | nr (not sig.) | nr | nr |
| BMI >30 | nr | nr |
| BMI ≤25 (ref.) | Ongoing pregnancy | 4 | nr | nr | 1.01 (0.75, 1.40) | nr (not sig.) | nr | nr |
| BMI >25 | nr | nr |
| BMI ≤30 (ref.) |  | 4 | nr | nr | 0.96 (0.64, 1.40) | nr (not sig.) | nr | nr |
| BMI >30 | nr | nr |
| Rittenberg et al. (2011)  *Meta-analysis* | • Fresh or frozen, autologous IVF/ICSI with cleavage or blastocyst stage embryos  • 1-6 embryos per cycle  • 1 or more cycles per woman/couple | BMI <25 (ref.) | Clinical pregnancy‡ | 25 | 9510/23693 | 40.1% | 0.90 (0.85, 0.94)† | <0.0001 | 51% | 0.002 |
| BMI ≥25 | 3950/11213 | 35.2% |
| BMI <25 (ref.) |  | 16 | 8032/19511 | 41.2% | 0.91 (0.86, 0.96)† | 0.003 | 35% | 0.08 |
| BMI 25-29.9 | 2184/6079 | 35.9% |
| BMI <25 (ref.) |  | 15 | 8278/20145 | 41.1% | 0.87, 0.80, 0.95)† | 0.002 | 62% | 0.0008 |
| BMI ≥30 | 1466/4062 | 36.1% |
| Maheshwari et al. (2007)  *Meta-analysis* | • Fresh, autologous IVF/ICSI with cleavage or blastocyst stage embryos  • 1->3 embryos per cycle  • 1 or more cycles per woman/couple | BMI <25 (ref.) | Biochemical, clinical and/or ongoing pregnancy per woman | 7 | 1964/5017 | 39.1% | 0.81 (0.67, 0.98) | 0.03 | 59% | 0.02 |
| BMI ≥25 | 1074/2883 | 37.3% |
| BMI <30 (ref.) |  | 6 | 2615/6781 | 38.6% | 0.86 (0.70, 1.05) | 0.15 | 38% | 0.15 |
| BMI ≥30 | 402/1067 | 37.7% |
| BMI 20-25 (ref.) |  | 3 | 1024/2366 | 43.3% | 0.71 (0.56, 0.82) | <0.00001 | 0% | 0.51 |
| BMI >25 | 528/1443 | 36.6% |
| BMI 20-30 (ref.) |  | 3 | 1424/3327 | 42.8% | 0.68 (0.56, 0.83) | 0.002 | 0% | 0.79 |
| BMI >30 | 168/482 | 34.9% |
| BMI <25 (ref.) | Biochemical, clinical and/or ongoing pregnancy per cycle | nr | nr | nr | 1.01 (0.89, 1.14) | nr (not sig.) | nr | nr |
| BMI ≥25 | nr | nr |
| BMI <30 (ref.) |  | nr | nr | nr | 0.95 (0.78, 1.15) | nr (not sig.) | nr | nr |
| BMI ≥30 | nr | nr |
| **Maternal smoking** | | | | | | | | | | |
| Waylen et al. (2009)  *Meta-analysis* | • Fresh or frozen, autologous or donor IVF/ICSI with cleavage or blastocyst stage embryos  • 1->4 embryos per cycle  • 1 cycle per woman/couple in most (2 studies with >1 cycle in some women) | Non-smokers (ref.) | Clinical pregnancy‡ | 18 | 1303/3959 | 32.9% | 0.56 (0.43,0.73) | <0.001 | 49% | 0.01 |
| Smokers | 236/1284 | 18.4% |
| Non-smokers (ref.) | IVF patients only | 13 | nr | nr | 0.57 (0.42, 0.77) | nr (sig.) | nr | nr |
| Smokers | nr | nr |
| Non-smokers (ref.) | Studies where age not likely to be a confounder | 9 | nr | nr | 0.51 (0.32, 0.79) | nr (sig.) | nr | nr |
| Smokers | nr | nr |
| Non-smokers (ref.) | Studies limited to autologous oocytes only | 17 | nr | nr | 0.57 (0.43, 0.75) | nr (sig.) | nr | nr |
| Smokers | nr | nr |
| \* Biochemical pregnancy = positive urine or serum β-hCG levels 14 days after embryo transfer; clinical pregnancy = ultrasound visualization of gestational sac(s) with fetal pole and fetal heart movements/activity/beat; ongoing pregnancy = ultrasound visualization of gestational sac(s) with a visible fetal heart beat after 12 weeks gestation  † Risk ratio  ‡ Pregnancy rate per cycle | | | | | | | | | | |