## Supplementary Table 9. Effectiveness: miscarriage rate.

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Review** | **Treatment Characteristics** | **Study Groups** | **Subgroups** | **Number of studies** | **Miscarriage rate\*** | | | | **Heterogeneity** | |
| **n/N** | **%** | **Odds Ratio**  **(95% CI)** | **P-value** | **I2 (%)** | **P-value** |
| **Maternal weight/BMI** | | | | | | | | | | |
| Jungheim et al. (2013)  *Meta-analysis* | • Fresh donor IVF  • 1 cycle per woman/couple | BMI <20 |  | 5 | nr | nr | 0.92 (0.73, 1.17) | nr (not sig.) | 0% | nr |
| BMI 20-24.9 (ref.) | nr | nr | - |  |  |  |
| BMI 25-29.9 | nr | nr | 0.90 (0.59, 1.34) | nr (not sig.) | 45.3% | nr |
| BMI >30 | nr | nr | 1.12 (0.83, 1.50) | nr (not sig.) | 0% | 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.) |  | 22 | 2444/12724 | 19.2% | 1.31 (1.18, 1.45) | <0.00001 | 48% | 0.01 |
| BMI ≥25 | 1207/5072 | 23.8% |
| BMI <25 (ref.) |  | 14 | 1529/7413 | 20.6% | 1.24 (1.13, 1.35) | 0.001 | 22% | 0.26 |
| BMI 25-29.9 | 472/1989 | 23.7% |
| BMI <25 (ref.) |  | 14 | 1837/9206 | 20.0% | 1.36 (1.13, 1.64) | 0.001 | 56% | 0.005 |
| BMI ≥30 | 306/1198 | 25.5% |
| Metwally et al. (2008)  *Meta-analysis* | • Fresh or frozen, autologous or donor IVF/ICSI with cleavage or blastocyst stage embryos  • 1->3 embryos per cycle  • 1 or more cycles per woman/couple | BMI 19-24.9 (ref.) |  | 12 | 991/7621 | 13.0% | 1.67 (1.25, 2.25) | 0.0006 | 84% | <0.00001 |
| BMI ≥25 | 603/3646 | 16.5% |
| BMI 19-24.9 (ref.) | Autologous oocytes | 9 | 647/5546 | 11.7% | 1.52 (0.88, 2.6) | nr (not sig.) | nr | nr |
| BMI ≥25 | 425/2857 | 14.9% |
| BMI 19-24.9 (ref.) | Studies where age not likely to be a confounder | 4 | nr | nr | 1.41 (0.96, 2.06) | nr (not sig.) | nr | nr |
| BMI ≥25 | nr | nr |
| BMI 19-24.9 (ref.) | Studies using WHO criteria for BMI classification | 6 | nr | nr | 1.95 (0.76, 5.01) | nr (not sig.) | nr | nr |
| BMI ≥25 | nr | nr |
| BMI 19-24.9 (ref.) | Donor oocytes | 3 | 344/2075 | 16.6% | 1.52 (1.10,2.09) | nr (sig.) | nr | nr |
| BMI ≥25 | 178/789 | 22.6% |
| BMI 19-24.9 (ref.) | Studies using WHO criteria for BMI classification | 3 | nr | nr | 1.59 (0.89, 2.88) | nr (not sig.) | nr | nr |
| BMI ≥25 | nr | nr |
| 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.) |  | 10 | 813/4222 | 19.3% | 1.33 (1.06, 1.68) | 0.01 | 46% | 0.05 |
| BMI ≥25 | 483/2117 | 22.8% |
| BMI <30 (ref.) |  | 8 | 996/5149 | 19.3% | 1.53 (1.27, 1.84) | <0.00001 | 0% | 0.86 |
| BMI ≥30 | 186/747 | 24.9% |
| **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.) | Spontaneous miscarriage | 7 | 268/1688 | 15.9% | 2.65 (1.33, 5.30) | 0.006 | 45.4% | 0.09 |
| Smokers | 66/211 | 31.3% |
| Non-smokers (ref.) | IVF patients only | 4 | nr | nr | 2.99 (0.94, 9.47) | nr (not sig.) | nr | nr |
| Smokers | nr | nr |
| Non-smokers (ref.) | Studies where age not likely to be a confounder | 3 | nr | nr | 1.88 (0.55, 6.37) | nr (not sig.) | nr | nr |
| Smokers | nr | nr |
| Non-smokers (ref.) | Studies limited to autologous oocytes only | 6 | nr | nr | 3.05 (1.74, 5.73) | nr (sig.) | 30.3% | nr |
| Smokers | nr | nr |
| \* Number of miscarriages per pregnancy in Maheshwari et al. (2007), per woman/couple in Metwally et al. (2008), and per cycle in Rittenberg et al. (2011) and Waylen et al. (2009) | | | | | | | | | | |