Consultative Council on Obstetric and Paediatric Mortality and Morbidity

In vitro fertilization (IVF) and pregnancy risk

Good practice point

OFFICIAL

Aim

The aim of this good practice point is to alert clinicians to the increased risk profile of pregnancy resultant of assisted reproductive treatment.

Background

In 2023, there were 30152 assisted reproduction treatment cycles for 16952 women in Victoria (VARTA, 2023). Pregnancies conceived with assisted reproductive technology are associated with greater perinatal risk than those conceived spontaneously.

There is systematic review evidence of more stillbirths in women who conceive with IVF in comparison to women who conceive without medical intervention (OR 1.82 CI-1.37-2.42) (Sarmon *et al*., 2021). Pregnancies conceived with IVF are also at greater risk of preterm birth. The summary rate of preterm delivery in 2021 at < 37 completed weeks is 11.5% (fresh embryo transfer) and 9.8% (frozen embryo transfer) compared to 8% for those spontaneously conceived pregnancies (Newman, Paul and Chambers, 2023). Delivery of women with pregnancies conceived with IVF are more likely to be complicated by placental adhesive disorders (Matsuzaki *et al*., 2021). IVF conception is also considered a minor risk factor for fetal growth restriction (Pandey *et al*., 2021; PSANZ and Stillbirth CRE, 2023).

Recommendations

- Maternity care providers should ensure cervical length screening at the time of the morphology scan is performed optimally. This will usually mean a transvaginal approach with an experienced sonographer / sonologist.
- Clinicians should have a low threshold to provide earlier cervical length screening for those with additional risk factors (vaginal bleeding, prior uterine surgery etc).
- A comprehensive assessment for risk factors for fetal growth restriction should be performed and fetal growth surveillance planned in accordance with local protocols (PSANZ and Stillbirth CRE, 2023).
- In late pregnancy the increased risk of stillbirth and potential placental adhesive disorder should be considered with respect to gestation at birth and place of birth.

References

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