INFORMATION SHEET

Single embryo transfer
GYNAECOLOGY AND FERTILITY CENTRE

Single embryo transfer

When you really want to have a child, the idea of becoming pregnant with more than one baby as a result of
your treatment may sound ideal, especially if you have been waiting a long time. However, the greatest health
risk for women who conceive following fertility treatment is a multiple pregnancy. The Human Fertilisation and
Embryology Authority (HFEA) regulations allow for a maximum of two embryos to be transferred to women under
the age of 40 with a maximum of three in women aged 40 and over. However, since 2004 only 4% of treatment
cycles in the UK have involved three embryos being transferred.

What causes multiple pregnancies?
Multiple pregnancies are usually the result of the transfer of more than one embryo to form twins or triplets.
On rare occasions one implanted embryo can divide into two which will create identical twins. Unlike natural
conception where the chance of having a multiple birth is relatively low (1 in 80 births in the UK), in vitro
fertilisation (IVF) pregnancies result in a higher chance of a multiple birth (roughly 1 in 4 IVF deliveries is of twins).

What are the risks of multiple pregnancies?
Even when only two embryos are transferred there is a significant risk of twins (up to 20%). These multiple
pregnancies are associated with an increased risk of premature delivery and cerebral palsy, as well as most of
the complications of pregnancy itself such as diabetes and high blood pressure. In addition, once they are born,
bringing up twins or triplets has financial, emotional and physical implications for the parents. By adopting a
strict policy on the number of embryos transferred, we aim to keep multiple pregnancies to a minimum. We offer
embryo freezing and frozen embryo transfer (see the separate patient leaflets for more information) so that you
can store embryos that are not implanted for future IVF treatments.

Risks to the mother:
• Miscarriage
• Anaemia (iron deficiency)
• Haemorrhage (bleeding)
• Hypertension: approximately 25% of multiple pregnancies are complicated by high blood pressure
• Pre-eclampsia – this is three times more likely for twin
  pregnancies and nine times as likely for triplet pregnancies
• Gestational diabetes – two to three times more likely for twin pregnancies
• Premature labour
• Mortality –doubles for twin pregnancies

Risks to the babies:
• Premature birth - 50% of twins and 90% of triplets are born prematurely (before 37 weeks of pregnancy)
  and have a low birth weight (less than 5.5 lbs). The risk of death for premature babies around the week of birth
  is five times higher for twins and nine times higher for triplets compared to singletons. Some effects of
  prematurity can affect a child well into their childhood
• Identical twins have a significantly increased risk of congenital abnormalities (birth defects)
• Cerebral palsy – five times more likely for twins and 18 times more likely for triplets.

Apart from the risks during pregnancy and birth, caring for more than one baby at the same time can cause
considerable emotional, practical and financial stress on a family. It’s understandable that having more than one
child after fertility treatment could seem like a very positive result, but it is worth taking time to consider the
longer term implications for you and your partner.
Why are there so many twins after IVF?
This is due to previous embryo transfer practices, where almost all women had two embryos transferred during IVF. If both embryos implant, the result is a twin pregnancy with non-identical twins.

What can be done?
The high twin birth rate is the result of putting back two embryos during IVF. This can only be brought down by transferring one embryo to the women who are most likely to conceive after IVF and therefore most likely to have twins. This is a unified policy across all UK clinics to reduce multiple pregnancies in line with the HFEA’s National Strategy to reduce multiple pregnancies from all fertility treatments. The HFEA introduced a policy in 2008 which aims to bring down the UK IVF multiple birth rates to 10% over a staged period.

This does not suggest a complete ban on two-embryo transfers. The countries that have introduced elective single embryo transfer (eSET) as normal clinical practice still restrict it to the fertility patients with the best prospect of success. In this way they managed to maintain good success rates.

Who would benefit from eSET?
eSET will only be recommended for fertility patients with a relatively good prospect of conceiving after IVF. The recommended policy is to only transfer a single embryo in females under the age of 37 years. Even if this policy does not apply to you, we will still do our best to reduce the possibility of a multiple pregnancy and may still advise you to have a single embryo replaced in certain circumstances.

We would urge ANY patients concerned about the risks of a twin pregnancy to consider having a single embryo transfer.

Factors that influence the decision include:
• The woman’s age
• The number and outcome of previous treatment cycles
• The number of eggs produced in response to hormone treatment
• The number of good quality embryos available
• The medical and lab staff will discuss the decision for eSET with you during your treatment cycle

Will eSET decrease my chances of getting pregnant?
No. Single embryo transfer will be offered to patients who will have a good chance of conceiving. In this way, pregnancy rates will be comparable with a two-embryo transfer. The latest research shows that success rates remain high even after eSET.

The medical information in this leaflet is provided as an educational resource only. It is not intended to replace the advice of your GP or medical team and should not be used or relied upon for any diagnostic or treatment purposes. The information has been prepared by Dr Carole Gilling-Smith, Consultant Gynaecologist and Medical Director of the Agora Gynaecology and Fertility Centre. It was last updated in August 2014.