

Multiple Births in the United Kingdom

A consensus statement

This consensus paper follows a meeting which took place on 23rd January 2007 in London. This was convened by the Human Fertilisation and Embryology Authority.

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PARTICIPANTS

PROFESSIONAL ORGANISATIONS

**British Fertility Society
Royal College of Obstetricians & Gynaecologists
Association of Clinical Embryologists
Royal College of Paediatrics and Child Health
Royal College of Midwives
Royal College of Nursing
British Infertility Counselling Association
Multiple Births Foundation**

PATIENT ORGANISATIONS

**Infertility Network UK
Twins and Multiple Births Association
Miscarriage Association
BLISS: The Premature Baby Charity
Fertility Friends
National Gamete Donation Trust
Donor Conception Network
ACeBabes
Daisy Network
Endometriosis UK
Surrogacy UK**

OTHERS

**National Perinatal Epidemiology Unit
National Infertility Awareness Campaign**

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Multiple birth is the single biggest risk to the health and welfare of children born after IVF. A comprehensive analysis of the consequences of multiple pregnancies has recently been published. The report of the *Expert Group on Multiple Births after IVF* has provided irrefutable evidence that the extraordinary rise in the prevalence of twin births in the UK is in the main due to fertility treatment, particularly IVF.

Over 40,000 IVF cycles now take place in the UK each year, with average pregnancy rates following treatment now over 25% per cycle initiated. One in four pregnancies derived from IVF results in a twin birth, a ten-fold increase in risk over natural conception. Given the major immediate and long term consequences for women and particularly the children associated with twin birth, this level of demand on maternity, neonatal paediatric and child health services presents major problems for the state funded health sector.

A multiple pregnancy should not be regarded as the ideal outcome of IVF treatment. While two healthy babies may be born, twin pregnancies can result in adverse outcomes for both mother and child. With IVF associated conceptions now accounting for in excess of 1% of UK births, the aim must be to ensure that these children are afforded the maximum chance of a healthy start in life.

The direct link between the number of embryos transferred to the uterus during IVF treatment and the chance of twin pregnancy is beyond dispute. It is the view of the organisations contributing to this document that, with much of Europe now offering elective single embryo transfer as the norm, continued high multiple embryo transfer and twin pregnancy rates are impossible to justify.

Measures to reduce the burden of twin pregnancies will need to take account of the many and complex influences on clinical and laboratory practice in the UK.

This consensus statement brings together the views of providers of treatment (clinicians, scientists and counsellors), midwives, obstetricians, paediatricians, and patient organisations including those with experience of multiple births.

THE GROUP RECOMMEND THAT THE MINISTER OF HEALTH GIVE CONSIDERATION TO THE ISSUES RAISED IN THIS DOCUMENT

KEY POINT

The only way to reduce multiple birth rates after IVF is to transfer only one embryo to those women at most risk of having twins. Elective single embryo transfer and cryopreservation of any additional suitable embryos should be standard practice in good prognosis IVF patients.

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Consensus views

INFORMATION PRE-TREATMENT

1. **Twin pregnancies carry much higher obstetric risks for women.**
2. **Multiple birth is the single biggest risk to the health and welfare of children born after IVF.**
3. **Reducing death and disability in children conceived following infertility treatment is of concern to commissioners, providers and recipients of care.**
4. **It is the duty of those providing infertility treatments including IVF, to take account of potential adverse obstetric outcome, particularly those associated with multiple pregnancies.**
5. **The goal of all fertility treatments should be the delivery of a single, healthy child, born at full term. This is the safest outcome for both the mother and child.**
6. **At the outset, in providing fertility care, clinic staff should make clear to patients considering treatment that the interests of the prospective child are of major importance.**
7. **Responsible public education initiatives are required to appraise patients, and the wider public, about potential adverse outcomes of twin pregnancies.**
8. **The media should ensure that reporting of issues surrounding multiple births is accurate, informed and avoids sensationalism.**
9. **Robust national guidelines, complementing existing international datasets, on patient and embryo profiles generating high risk of multiple pregnancies after double embryo transfer are required.**
10. **Prospective patients, with a good prognosis, should be advised that a single embryo transfer policy involving fresh followed by frozen single embryo transfers, can virtually abolish the risk of multiple pregnancy while maintaining a live birth rate the same as that achieved by transferring two fresh embryos.**

PROVISION OF CARE

11. **High rates of multiple pregnancies derived from IVF treatment in individual centres are no longer acceptable. Providers of IVF should endeavour to identify those women at significant risk of multiple pregnancies through treatment. Single embryo transfer (SET) in good prognosis patients should be offered as a matter of routine.**

- 12. Centres should refer to good practice guidelines as these evolve, as well as regulatory requirements, in developing protocols for SET taking account of prognostic indicators, such as female age and available embryo quality. Egg donation cycles may be at particular risk of multiple implantations where more than one embryo is replaced.**
- 13. Fertility centres must have audit processes in place monitoring embryo transfer practice and consequent implantation rates.**
- 14. The role of the regulator in developing change in clinical practice in the UK is extremely important. Historical evidence would suggest that a degree of proscription is likely to be required to facilitate change in practice and attitudes. The HFEA is launching a consultation which seeks the views on various options, amongst them:**
 - a. The regulator could proscribe a requirement of IVF treatment centres to reduce multiple pregnancy rates to <10% of the total pregnancies per initiated cycle.**
 - b. The regulator could adopt an approach in only permitting SET in the first cycle of treatment in patients under the age of 35 years. This would be similar to state funded treatment in Belgium.**
 - c. Where blastocyst transfer is contemplated the regulator could insist that in all cases only a single blastocyst is transferred.**

Further responses by all the relevant parties on this issue to the HFEA consultation will be of considerable interest.

- 15. Prognostic indicators based on embryo quality will, as knowledge increases, be refined. Efforts such as the Department of Health funded TowardSET Project (Manchester) will be expected to provide major assistance in this area over the next two years. Regulatory processes should ensure that any national SET policies based on embryo quality and other variables may be changed without major bureaucratic complexity.**
- 16. Those providing care in the private and NHS sector should be bound by the same proscription on embryo transfer practice and multiple pregnancy rates.**

COMMISSIONING CARE AND NATIONAL FUNDING

- 17. Commissioners should take account of multiple pregnancy rates of centres with whom they contract, and insist on maximum acceptable twin pregnancy rates per cycle initiated e.g. 10%.**
- 18. The definition of a single full treatment cycle is the replacement of a fresh embryo and subsequent replacement of all the frozen embryos derived from that cycle. Adherence in this way to the NICE Guideline would encourage and not disadvantage patients agreeing to SET.**
- 19. Inadequate implementation of the NICE Guideline on Fertility (2004) has had a fundamental part to play in the failure of UK IVF centres to adopt single embryo transfer policies. Patients have, as a consequence,**

frequently found it difficult to accept SET in their own treatment, conscious that electing to have a single embryo transferred, in what could be their only state funded IVF cycle, might reduce their chance of a child.

20. Commissioners must, as a minimum in the first instance, acknowledge the need to fund a single cycle of IVF (fresh plus the thawed embryo transfers) in line with the Secretary of State for Health's instruction at the time of the launch of the NICE Guideline.
21. The Department of Health must encourage commissioners to consider full implementation of the NICE Guideline. If three full cycles of IVF care were to be provided by the State, then the pressure on patients accessing self funded care to decline elective SET would reduce.
22. Variation in provision will inevitably continue whilst there remains local determination on commissioning priorities and little follow-up monitoring of implementation of the NICE Guideline by the Department of Health.
23. The Department of Health should encourage commissioners to adopt national uniform criteria for contracting with IVF providers, particularly with respect to the definition of a treatment cycle i.e. fresh + thawed embryo transfers.
24. NHS contracts with fertility clinics should include reference to professional good practice guidelines, where available, aimed at reducing multiple births.
25. Clinics should consider the development of pricing policies which make elective SET attractive to both commissioners and patients.
26. Guidance on commissioning should be uniform across the whole of the UK.

REPORTING OUTCOMES

27. Paediatric follow-up studies on fertility treatment associated pregnancies are hampered by constraints on disclosure as dictated in current legislation governing the work of the UK regulator. This legislation should be revised to allow greater co-operation between fertility specialists, obstetricians and paediatricians. In addition linkage of the Authority database to other national databases e.g. the National Childhood Cancer Registry would facilitate important epidemiological research.
28. The regulator should report clinic data in such a way as to encourage good practice in relation to embryo transfer policies. Reporting cumulative pregnancy rates per initiated cycle i.e. including fresh and frozen/thaw transfers would be desirable.

SUPPORT FOR NEONATAL AND CHILD HEALTH SERVICES

- 29. Neonatal care facilities in the UK should be organised and equipped to provide the best care possible for all children, including those derived from multiple birth.**
- 30. Neonatal health care services are under considerable strain in the UK, exacerbated by high numbers of multiple births. Significant adjustment of the pressures in neonatal care can be expected through the adoption of a national SET policy within the UK enabling more resources to be available for the provision of increasingly complex and expensive care, essential for some babies, whether conceived naturally or after fertility treatment.**

CONCLUSION

- 31. The evidence base linking the practice of multiple embryo transfer and the consequent establishment of pregnancies at significantly greater risk of serious complications is irrefutable. The health benefits to children, the reduction in distress for families and the enormous cost savings for society, through reduction in need for immediate and long term health care for affected children, make an overwhelming case for change in this area of clinical practice. Modification of embryo transfer practice through careful patient and embryo selection can significantly reduce the risk of such hazards.**
