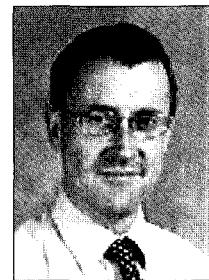


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How to Optimize Success in an IVF Center

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The Center For Reproductive Medicine and Fertility was opened in Sheffield in 2001, following a £29 million new build of the Women's Hospital in the city. This development gave us the opportunity to design a purpose built centre for ART. We included a "race-track" design for patient management, dedicated space for counselling, two operating theatres for oocyte collection and embryo transfer and a state-of-the-art embryology laboratory. Even more recently we have upgraded the laboratory to 'near-GMP' capability, with grade B air quality as background and grade A within the environment for gamete and embryo handling. This has allowed us to begin a program for development of human embryonic stem cells to GMP, and to be compliant with the new demands of the European Union Tissues and Cells Directive, which becomes effective in UK in 2007.

These developments have allowed us to maintain a patient-friendly environment with a highly efficient and modern laboratory suite. Pregnancy and live birth rates remain the major concern of all patients who attend for ART. However we must also look at the range of services provided (diagnostic, ovulation induction, IUI, donor sperm and oocyte treatment, IVF, ICSI, PGD) as well as the quality of service we give to patients. The patient experience can be improved by using GnRH antagonist protocols as standard. This gives shortened duration of treatment, no menopausal symptoms due to downregulation, and lower risk of OHSS. We have developed a protocol for antagonist controlled superovulation which keeps patient attendances to a minimum while maintaining high pregnancy rates. The likelihood of a patient seeking a second treatment will be increased if her experience of the first cycle is good.

Pregnancy and livebirth rates are largely determined by issues external to the IVF center. The most important predictor of success is the age of the female partner at time of IVF. As more and more women defer trying for their first child, patients attending for IVF are becoming older and hence less responsive to stimulation and with poor oocyte and embryo quality. In UK practice, lifestyle issues such as smoking, alcohol and drug consumption, obesity and physical fitness all contribute to IVF outcome, and are outside the control of the center. If high pregnancy rates are the "number one goal", then older patients and those who smoke or drink alcohol to excess would be denied treatment. However in our practice we try to treat all patients who seek help from us. Within the center, quality of laboratory equipment and practice is the most important feature that will influence outcome. Our center holds ISO accreditation for laboratory and clinical practice, which has led us to reach the highest standards of quality assurance and process management. This has been reflected in our pregnancy and live birth rates. In concordance with European 'best practice', we are carrying out more and more IVF cycles with single embryo transfer, since the true mark of success for an IVF center is its singleton live birth rate per cycle started.
