The Physician
Journal of The British Association of Physicians of Indian Origin

Mild In vitro Fertilisation

Study in Affordability & Sustainability

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Cite as: Farrer, B., Osborne, L., Nesbitt, H., Stanley, C., Nargund, G. (2023) Mild in vitro fertilisation: Study in affordability and sustainability. The Physician vol 8; Issue 2: Art 4 1-4 DOI 10.38192/1.8.2.4

The case for making healthcare more sustainable is becoming increasingly urgent. Medical professionals understand the need to reduce costs and environmental impact. Innovation and creativity in developing novel treatment pathways jointly with patients are crucial in efficiently utilizing scarce resources and delivering sustainable patient benefits. Approaches that aim to provide 'health prevention' and keep medical intervention as minimally invasive[1] as possible are often more desirable to patients and the environment. For instance, the benefits of minimally invasive surgery to patients include less postoperative pain, fewer operative and post-operative major complications, shortened hospital stay, faster recovery times, less scarring, less stress on the immune system, smaller incision, and for some procedures, reduced operating time and reduced costs.[2] The combined use of such minimally invasive technologies shortened operative times, diminished personnel use, and was associated with no additional risk.[3]

Infertility has a variety of aetiologies, and many therapeutic options are available. Before the advent of in vitro fertilisation (IVF), surgery was the primary treatment offered to patients with infertility. However, evolution in the practice of reproductive surgery and the advancement of IVF has changed the role of minimally invasive surgery in managing infertility. Ongoing developments in non-invasive fertility care have increased the importance of identifying the most appropriate indications for minimally invasive reproductive surgery for patients with infertility.[4] These concepts are particularly pertinent in reproductive, and women's health, and this case study explores the model at CREATE Fertility® and abc ivf®.

Article Information
Submitted 20 Jun 23
Revised 7 Jul 23
Published 20 Jul 23

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A friendly & safe approach

The CREATE Fertility® concept was driven by the desire to offer women bespoke choices in fertility treatment. Modified natural cycle IVF (mnc-IVF) or mild IVF (m-IVF) treatment delivered with lower doses of drugs have been shown to achieve pregnancy rates per embryo transfer that are acceptable for these treatment modalities, the cost for medication is low, risks for complications are dramatically reduced, and the treatments may be more psychologically acceptable to the patients. [5] Using such techniques, CREATE aimed to provide women with treatment that reduces risks, side effects and the burden of IVF while supporting healthier outcomes for mother and baby, while maintaining outcomes. The team of Nargund and Campbell adopted pioneering approaches, including the use of advanced ultrasound in investigating infertile couples.[6] Success in novel and mild IVF approaches also depends on maintaining and encouraging strong links to academic and medical communities, including notably to ISMAAR, the International Society for Mild Approaches in Assisted Reproduction, a UK charity set up to promote education and research.[7]

Access to IVF

The philosophy of putting patients first and finding a more efficient way to work is at the heart of the mild IVF approach. In the UK and worldwide, access to fertility treatment is not fair or equal. For many women and couples, the cost is a significant barrier that can stop them from building the family they want. The median projected price per IVF cycle in 2001 in the United States was estimated to be US$9226 and US$3531 in 25 other countries. Based on previously published estimates, the cost per delivery arising from IVF cycles in 2001 in the United States would average US$56,419 and US$20,522 in eight other countries. Multiple gestation births significantly increase the cost of IVF treatment, and this therapy does not meet the cost-effectiveness thresholds.[8]

The IVF treatment cost was £4202 to £5135 in the UK. When assessed in association with outcomes, the average cost per ongoing pregnancy was £8992-9472. [9] Furthermore, over the years, more sophisticated technologies and expensive medications have been introduced, making IVF increasingly inaccessible despite the increasing need. Globally, the option to undergo IVF is only available to the economically privileged. In recent years, there has been growing interest to reduce the cost of IVF treatment, which would allow the service to be provided in low-resource settings.[10]

In the UK, the availability and protocols of treatment via the national health service (NHS) varies around the country.[11] The CREATE team set out to find a way to offer women denied NHS treatment and priced out of private treatment another choice. through the abc IVF ® agency in 2017, they were utilising mild IVF techniques, which offered substantial cost-reduction from standard therapies. This model also offered IVF in a streamlined, efficient patient journey, removing unnecessary add-ons.

Next Steps

Since its inception, the CREATE team have supported nearly 19,000 women in their journey to parenthood. CREATE now has a network of 32 clinics in the UK, plus Vitanova in Copenhagen, which specialises in fertility treatment for women and same-sex couples who cannot access care in their own country. CREATE Fertility has become part of IVIRMA,[12] the world's largest IVF company, and an NHS-approved provider of IVF treatment in many regions across England.

- The team continue to strive to address gender inequalities in healthcare changing the paradigm of the 'male as default' in research studies.
- The team have invested in improving awareness and knowledge about women's health issues among the public and the medical profession, through the CREATE Health Foundation charity, runs education modules in London secondary schools on fertility; and has partnered with the University of Bolton to provide post-graduate training in assisted reproduction, natural and

mild IVF, and advanced ultrasound technology. [13]

- The CREATE team has worked with the NHS to communicate the impact of lifestyle factors on fertility and endeavoured to create a better understanding of fertility issues among employers through its research white paper.
- CREATE Fertility is committed to helping to work towards the UN's sustainable development goals three (health and wellbeing), five (gender inequality), ten (reduced inequality) and thirteen (climate action) with her career-defining push to provide affordable, accessible, effective, and safe fertility treatment, delivered sustainably.

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