How far have we come in 30 years of IVF?

It’s more than 30 years since the first baby was born by in-vitro fertilisation (IVF) in Australia — only the third such baby in the world. Now, with more than four million children having been conceived by assisted reproductive technology (ART) worldwide, including almost one child in every Australian classroom (AIHW 2010; Cat. No. PER 49), IVF is an accepted and common treatment option for infertility.

In 1981, Justice Michael Kirby wrote a leading article in the MJA entitled “Test-tube man”. In it, he wrote about the moral dilemmas raised by the technology, including what to do with unused frozen eggs. He said: “If ever there was an issue upon which there is a need for a profound and thoughtful community debate, this is it. Neither legal imperialism nor medical paternalism, nor even scientific inevitability, should carry the day” (MJA 1981; 2: 1-2).

Kirby’s hopes for comprehensive community discussion were never fully realised, but IVF medicine has become clinically successful and important for many Australians. Other issues with IVF also remain to be addressed, particularly the business model of treatment delivery, costs and equity of access. The problem of multiple births was one such issue, because of the associated medical risks and consequent high health care costs. But both new technology and altered funding rules have helped to reduce this problem in Australia.

In this issue of the Journal (page 564), Norman describes as an “international blight” the high multiple birth rate that resulted from economic pressures to maximise the chance of a pregnancy with each embryo transfer procedure and, in poorer nations, from more primitive technology. As the perinatal mortality rate for IVF multiple births is double that of singleton IVF births and triple the rate for all births in Australia, he reasons that we must invest in making single embryo transfer (SET) — the only reasonable method of reducing multiple pregnancy — available and affordable.

Also in this issue (page 594), Chambers and colleagues make a convincing economic case for SET. They present a strong theoretical argument that 55% of the growth in ART use since 2002 has been funded by the savings gained through the greater use of SET and the resultant reduction in multiple births. During this period, the number of live births from ART has nearly doubled, while the multiple birth rate has fallen by more than half to 8.6%. All the while, clinical pregnancy rates have remained stable at just over one in every five cycles.

To see just how far we have come with IVF, turn to page 599 for a study from Giles and colleagues on the first Australian assisted reproduction program for HIV-serodiscordant couples. As they describe, there are now about 33 million people worldwide with HIV, most of whom are of reproductive age and, in Australia at least, likely to achieve a reasonable lifespan through the use of effective antiretroviral drugs. They describe the program’s methodology for attaining live births without horizontal transmission to the HIV-negative partner and present data on the outcomes.

Kirby concluded his article with the words of the distinguished judge and physician, Sir RogerOrmrod: “we should not be frightened or disturbed by the dilemmas inherent in such issues. Rather, they signal … the privilege of choice which represents one of the greatest achievements of humanity”.

Rebirth in the Middle East

The so-called Arab Spring has seen a wave of demonstrations and civil uprisings across the Middle East this year. In Libya, the protests led to a full-scale civil war with tens of thousands of people killed and injured and local hospitals struggling to cope. In this issue of MJA Careers, we speak to a Sydney-based anaesthetist who has recently returned from Libya, where he worked with Médecins sans Frontières treating the wounded and training local medics (page C8).

Closer to home, the Medical Mentor section (page C5) focuses on an obstetrician who has delivered more than 12,000 babies during his career, and still thinks it’s magic every time. We also talk to a young doctor about why he chose obstetrics and gynaecology training, and some more senior obstetricians explain what it takes to succeed in the specialty (page C1).