

**Catholic On Call handbook**  
**Chapter 3 - Infertility**

**3.1 Basic Church teaching**

**3.1.1 Catechism of the Catholic Church (CCC)**

*“Sacred Scripture and the Church’s traditional practice see in large families a sign of God’s blessing and the parents’ generosity” (CCC, 2373)*

*“Couples who discover that they are sterile suffer greatly. ‘What will you give me,’ asks Abraham of God, ‘for I continue childless?’ And Rachel cries to her husband Jacob, ‘Give me children, or I shall die!’” (CCC, 2374)*

*“ Research aimed at reducing human sterility is to be encouraged, on condition that it is placed ‘at the service of the human person, of his inalienable rights, and his true and integral good according to the design and will of God.’” (CCC, 2375)*

*“Techniques that entail the dissociation of husband and wife, by the intrusion of a person other than the couple (donation of sperm or ovum, surrogate uterus), are gravely immoral. These techniques (heterologous artificial insemination and fertilisation) infringe the child’s right to be born of a father and mother known to him and bound to each other by marriage. They betray the spouses’ right to become a father and a mother only through each other” (CCC, 2376)*

*“Techniques involving only the married couple (homologous artificial insemination and fertilisation) are perhaps less reprehensible, yet remain morally unacceptable. They dissociate the sexual act from the procreative act... Only respect for the link between the meanings of the conjugal act and respect for the unity of the human being make possible procreation in conformity with the dignity of the person” (CCC 2377)*

*“ A child is not something **owed** to one, but is a **gift**. The ‘supreme gift of marriage’ is a human person. A child may not be considered a piece of property, an idea to which an alleged ‘right to a child’ would lead. In this area, only the child possesses genuine rights: the right ‘to be the fruit of the specific act of the conjugal love of his parents’ and ‘the right to be respected as a person from the moment of his conception’” (CCC, 2378)*

*“The Gospel shows that physical sterility is not an absolute evil. Spouses who still suffer from infertility after exhausting legitimate medical procedures should unite themselves with the Lord’s Cross, the source of all spiritual fecundity. They can give expression to their generosity by adopting abandoned children or performing demanding services for others.” (CCC, 2379)*

**3.1.2 Dignitatis Personae**

In 2008, the Vatican issued “Instruction *Dignitas Personae* on Certain Bioethical Questions.” *Dignitas Personae* acknowledged the suffering felt by infertile couples who desire children, recommending encouragement not only of adoption but also of “research and investment directed at the *prevention of sterility*”. The encyclical lists three “fundamental goods” which act as guiding principles that must be respected when treating infertility: First, from the moment a sperm and an egg unite to form an embryo, that embryo is entitled to the same rights to life and physical integrity granted to all human beings. Second, partners in a marriage may only procreate with one another. Third, procreation must result from sexual union between husband and wife.

These guidelines place many restrictions upon procreation and the use of assisted reproductive technologies (ART), **ruling out procreation by non-married heterosexual couples, all homosexual couples, and single women, as well as the use of donor sperm, donor eggs, and gestational surrogates, even by married heterosexual couples. These guidelines also prohibit *in vitro* fertilization or artificial insemination – even when it uses a wife’s eggs and a husband’s sperm.** However, hormonal treatments and surgical interventions to remedy a blocked fallopian tube are permitted.

**Catholic theologians remain divided over whether Gamete Intra-Fallopian Transfer (GIFT), a procedure by which a woman’s eggs and a man’s sperm are transferred to the fallopian tube, to facilitate fertilization *in vivo*, is morally licit;** the Vatican has not issued an official teaching on this subject. According to John Haas, President of the National Catholic Bioethics Center in Boston, Catholic theologians are divided over whether GIFT replaces or assists the marital act. At a minimum, special care must be taken to ensure that the husband’s sperm is not collected via masturbation. Some theologians argue that if the sperm collected from the husband was emitted during sexual relations with his wife, and because the egg and sperm combine *in vivo*, GIFT assists the procreative aspect of the marital act. On the other hand, some theologians worry that because egg and sperm are placed in the wife’s fallopian tube by a physician, GIFT entails intervention by a third party into an act that should only involve husband and wife; additionally, because not all of the husband’s sperm is permitted to enter the wife’s vaginal canal, GIFT may be understood as limiting the procreative aspect of the marital act, even as it aims to assist it. If a couple does choose to utilize GIFT, Vatican teachings against abortion, and the risks associated with multiple-birth pregnancies, necessitate serious consideration of how many eggs to implant for each GIFT cycle.

**The first fundamental good, concerning an embryo’s right to life and physical integrity, precludes embryo cryopreservation, especially since cryopreservation “presupposes their production *in vitro*”. Research involving embryos, particularly research that destroys embryos, is also illicit.**

***Dignitas Personae* further cautions that oocyte cryopreservation is illicit if its intended purpose is use in artificial procreation. Yet oncofertility research on oocyte cryopreservation and *in vitro* follicle maturation does not necessarily presume the oocytes will be used in ART that violate Vatican guidelines.** Although some individuals or couples may use these eggs for IVF, Catholic couples may be able to use cryopreserved or *in vitro* matured eggs for GIFT. A modified version of GIFT, whereby only the eggs are transferred to the woman’s fallopian tube, at which point she and her husband may try to conceive through sexual intercourse, might be facilitated by successful oocyte cryopreservation techniques and may be more acceptable to some Catholic theologians who currently oppose GIFT. Oocyte cryopreservation would provide unmarried female cancer patients who abide by Vatican teachings with a fertility preservation option, enabling them to preserve their own reproductive capability so that if they get married in the future, they may procreate. Additionally, techniques in cryopreserving and then re-transplanting a woman’s ovarian tissue into her own body after cancer treatment, so that she might get pregnant with her husband through sexual intercourse, also seems likely to meet with Vatican approval.

### **3.2 Issues in clinical practice**

#### **3.2.1 Definition of infertility**

Infertility is the inability to conceive after one year of regular unprotected intercourse.

#### **3.2.2 Differential diagnosis of infertility**

- a Couples with reproductive problems
  - Unexplained infertility
  - Genetic problems
  - Recurrent pregnancy loss (secondary to autoimmune disease e.g. anti-phospholipid syndrome etc)
  - Sexual dysfunction
- b Women with reproductive problems
  - Ovulatory dysfunction
  - Polycystic ovary syndrome (PCOS)
  - Ovarian cysts
  - Blocked fallopian tubes
  - Endometriosis
  - Fibroids
  - Previous tubal ligation/sterilisation
  - Uterine abnormalities
- c Men with reproductive problems
  - Low sperm count
  - Absence of sperms (azoospermia)
  - Previous vasectomy
  - Sperm storage prior to cancer treatment
  - Sperm storage for other reasons

### 3.2.3 Assisted reproductive techniques

Any procedures connected with artificial human procreation for any reason (research, infertility, sex selection and others) must not be contrary to the unity of marriage or to the dignity of the procreation of the human person. For example, surrogate motherhood sets up a division between the physical, psychological and moral elements that constitute families. And sympathising with the suffering caused by infertility does not grant any right to have a child, as he is not an object of ownership.

Advancing technology is blurring the borders between good and evil medical practices, but it is possible to discern the 2 ways of intervention used viz **assisting** the natural processes (which may be licit) or **replacing** them (which is illicit). The former preserves the 2 meanings of the conjugal act while the latter dissociates them and the sexual relationship and is usually characterised by further abuses against the life and welfare of the embryo or foetus.

Ethics also need examination in the industry claims of success rates beyond the reality of an average 12.7% of treatment cycles, varying from 0% to 50%, that actually result in a live birth, according to the UK Human Fertilisation and Embryology Authority (HFEA). In Singapore, costs are \$6000-\$8000 per cycle and the "pregnancy rate" is 20-35%.

In case of doubt, judge the moral standing of the practitioner and the institution or facility.

#### 1. *In-vitro fertilization (IVF)*

In-Vitro Fertilisation (IVF) involves putting the eggs and sperms together. By natural selection, the egg will usually allow only one sperm to enter and this usually leads to the fertilisation process in the laboratory. After fertilisation, the embryos are allowed to grow for a short period of time before being placed into the uterus. A successful pregnancy can be confirmed about two weeks later.

IVF is the only fertility treatment for women with irreparably damaged or blocked fallopian tubes. IVF is also offered when infertile women cannot conceive with simpler methods of treatment for conditions such as endometriosis, ovulatory dysfunction, unexplained infertility, sperm disorders and immunological problems.

### *2. Intra-cytoplasmic sperm injection (ICSI)*

Intra-Cytoplasmic Sperm Injection (ICSI) involves injecting a single sperm into each egg to allow fertilisation to occur in the laboratory.

ICSI is recommended if the husband has poor quality sperms or if there have been difficulties with fertilisation in the past. If this is the first ICSI cycle, it may also be combined with regular IVF.

### *3. Superovulation and intrauterine insemination (SO-IUI)*

Superovulation is a procedure where two to three ovarian follicles (eggs) are stimulated and brought to maturation and ovulation. It is usually combined with intrauterine insemination in which the prepared sperm is placed directly into the uterus. This procedure will enhance conception for the couple.

Any couple who has unexplained infertility, mild male factor infertility, cervical factor infertility and mild endometriosis can undergo this procedure. The patient must have normal fallopian tubes and her husband should have sufficient good quality sperm.

The procedure is done on an outpatient basis. Fertility drugs are given for 10 days or more to produce between two to three mature follicles. These drugs may be either injections (gonadotrophins) alone or a combination of tablets (Clomiphene) and injections. Ultrasound scans are done at intervals to determine the number and size of the follicles before another injection (HCG) is given for final maturation and subsequent ovulation of these follicles.

On the day of the insemination, the couple has to bring the husband's semen sample to the hospital. The semen is prepared and the motile fraction is then placed into the uterus using a fine catheter through the cervix.

The patient is then started on medications to help improve the chances of implantation and thus pregnancy. A blood test (serum progesterone) is taken seven days after the insemination to monitor the effectiveness of these medications. A pregnancy test is performed 17 days after the insemination.

### *3. Embryo & Sperm Cryopreservation and Donor Sperm/Egg/Embryo Programmes*

Embryo and sperm cryopreservation are techniques designed to preserve embryos and sperm for future use. Patients who may elect these procedures include women or men who will undergo treatments that may destroy their future fertility (such as chemotherapy, radiation therapy or surgery), or couples who want to preserve embryos for future use. Spare oocytes or embryos resulting from fertility treatments may be used for oocyte donation or embryo donation to another woman or couple, and embryos may be created, frozen and stored specifically for transfer and donation by using donor eggs and sperm.

Cryopreservation of embryos is the process of preserving an embryo at sub-zero temperatures, generally at an embryogenesis stage corresponding to pre-implantation, that is, from fertilisation to the blastocyst stage. Embryo cryopreservation is generally performed as a

component of *in vitro* fertilisation (which generally also includes ovarian hyperstimulation, egg retrieval and embryo transfer).

Gametes are unlike any other cells because they are of no use for the life of the body that produced them. The only function of gametes is to conceive a new human being by transmitting the genetic heritage from father and mother.

They should therefore be treated with respect and reserved for the procreation of the couple's children. For that purpose they are irreplaceable, and they should not be manipulated.

ART techniques have brought about a revolution by taking ova out of the woman's body and exposing them to laboratory scrutiny. Gametes are now used for IVF (even for another couple) and for the manipulations that result from this (sperm selection, embryo selection, experimentation on embryos, preimplantation genetic diagnosis and surrogate motherhood).

These manipulations offend human dignity because they dissociate procreation from sexual union and transform gametes into laboratory material.

#### 4. *Blastocyst Culture*

Involves extending the culture of the embryos for 3 more days with a separate medium. It mimics more closely the natural stage of the embryo (i.e. blastocyst stage) during implantation. This programme aims to help patients who have many eggs and yet cannot conceive to increase their chances of implantation and hence achieve pregnancy.

#### 5. *In-Vitro Maturation of Oocytes (IVM)*

Immature oocytes are retrieved from the ovary and are matured in the laboratory. Once they mature, IVF or ICSI is then performed to assist in fertilising these oocytes.

#### 6. *Laser Assisted Hatching*

Involves breaching the outer layer of an embryo by piercing a hole to facilitate its hatching out and implantation. The hatching process can be impaired by the increased thickness of the outer layer and advanced age of the woman. This programme aims to increase the chances of implantation for the older woman.

### 3.2.4 The Catholic answer to infertility

#### 1. *Natural family planning – Billings method*

See section on NFP in Chapter 2 – *Contraception, sterilisation and family planning*

#### 2. *Naprotechnology*

Natural Procreative Technology, researched and developed by Dr Thomas Hilgers, a Catholic consultant obstetrician and gynaecologist from Nebraska, USA and lifetime member of the Pontifical Academy for Life, is a science which devotes its medical, surgical and allied health energies and attention to cooperating with the natural procreative mechanisms and functions. The skills of all those involved in supporting the couple to a natural conception do so by jointly optimising the conditions for natural conception whether those conditions require surgical, medical, fertility cycle charting and education, emotional, dietary, stress management or spiritual support or a combination – a truly comprehensive, holistic approach. Both male and female factors

will be addressed and supported as well as medically possible.

Couples who cannot be offered treatment are those with male azoospermia, female menopause or bilateral tubal blockage unless amenable to tubal microsurgery. However, the additional insight and understanding into their own particular fertility issues that the treatment process has given them facilitates acceptance of the situation in some.

A prerequisite for NaProTechnology medical treatment is a sound understanding of the individual couple's unique fertility pattern. This can only be obtained by standardised objective charting of fertility cycle biomarkers taught by rigorously trained FertilityCare practitioners. The couple's charting record provides a valuable additional diagnostic tool to standard infertility investigation techniques. It is very common to hear couples say that previously no attention has been paid to observations such as reduced cervical mucus flow, premenstrual spotting or tail end bleeding following menstruation. The chart provides an excellent monitoring tool, enabling medication to be timed specifically to cycles even when irregular, allowing accurately timed investigations, most notably mid-luteal phase hormone levels, hormone profiles where appropriate and in assessing response to medication, for example, with cervical mucus scores.

The aim of all treatment for infertility or miscarriage in NaProTechnology is to achieve hormonally effective, mono-ovulatory cycles where cervical mucus is optimized, the couple understands the concept of fertility-focused intercourse and stress is managed as effectively as achievable. The couple are encouraged to take the 'long view' expecting that in this supported environment conception may occur at some stage in the following twelve months. However every cycle is monitored and medication will be changed on a cycle-by-cycle basis as necessary, indicated by luteal phase hormone levels, ultrasound scan findings, cervical mucus scores or other events. Clinic medical review takes place every four months but practitioner colleagues maintain brief monthly contact with couples by phone between medical appointments.

Medication prescribed may address poor follicular development, optimize cervical mucus or support the luteal phase. Thyroid function is assessed and treatment provided where indicated. Surgical referral will be made for treatment of endometriosis, ovarian cysts or tubal repair as necessary.

In 2008 a peer-reviewed study of 'Outcomes with NaProTechnology for Infertile Couples in an Irish practice'<sup>1</sup> was published in the Journal of the American Board of Family Medicine. Based on 1239 couples from Dr. Phil Boyle's Galway NaProTechnology Practice, the largest in Europe, crude success rates were 25.5 per 100 couples and in life table analysis first live births for those completing up to 24 months of NaProTechnology treatment were 52.8 per 100 couples. Younger couples and those without previous ART attempts had higher rates of live birth. Among live births there were 4.6% twin births and no higher order births. Further studies are ongoing with a multi-centre 10 year iNEST study, the International NaProTechnology evaluation and surveillance of treatment study.<sup>2</sup>

In addition to the treatment for infertility and miscarriage, NaProTechnology has applications for women's health in managing premenstrual symptoms, irregular cycles, polycystic ovaries, and many others. This support works from the premise that it is better to understand and work in cooperation with a woman's natural cycle pattern

rather than to suppress or circumvent the natural pattern as is the way of many currently available treatments.

## References

<sup>1</sup> Stanford J, Parnell TA, Boyle PC. Outcomes From Treatment of Infertility With Natural Procreative Technology in an Irish General Practice. *JABFM* September–October 2008 Vol. 21 No. 5  
<http://www.jabfm.org>

<sup>2</sup>iNEST Study information at [www.iirm.org](http://www.iirm.org) under research tab, iNEST.

### 3.2.4 Legal issues

MOH licensing terms and conditions on assisted reproduction services

#### Indications for IVF according to MOH

1. Tubal disease and/or obstruction
2. Endometriosis – failed alternative approaches to treatment
3. Male factor infertility
4. Idiopathic subfertility – no cause found after full investigation, at least 3 years of marriage, completed alternative approaches to fertility management for at least 1 year. Not applicable to women over 35 years of age.
5. Premature ovarian failure
6. Other conditions acceptable to the local medical obstetric/gynaecological community

Surrogacy is not legally acceptable locally.

### 3.2.5 What to do: suggested approaches to common clinical scenarios

#### **1. Infertile couple wanting a child via IVF**

*A Catholic married couple comes to your clinic seeking advice on fertility treatments, as they have been trying for a child unsuccessfully for the past two years. How should you respond?*

- Pray to the Lord for guidance before beginning the consult
- Take a basic history: years of marriage, duration of trying for a baby, past medical history/chronic illnesses /medications of both husband and wife, risk factors for infertility (smoking, alcohol use)
- Explain that marriage is a special kind of self-giving, expressed in and through the body (sexual intercourse)
- When conception is separated from this act of love of spouses, as occurs in many artificial reproductive technologies, there is a danger that it may harm the relationship of the spouses and also treat new life as a commodity and not as a gift
- Explain that Church teaching comes back to the fundamental concern for the new life that will come into existence, the relationship of the spouses and the place of God in bringing about new life
- Provide information about the licitness of artificial reproductive technologies in Church teaching
  - o Techniques that replace conception by means of sexual intercourse between spouses are judged to be morally wrong (artificial insemination by one's husband or a sperm donor, *in vitro* fertilisation, cloning and surrogate motherhood)
  - o Involvement of third party is deemed morally illicit (artificial insemination by donor, surrogate motherhood, *in vitro* fertilisation with donor ova/sperm)
- Introduce the Catholic answer to infertility – the Billings method of natural family planning, and naprotechnology. Offer referral so that the couple may find out more about these options

- Offer follow-up as required

### 3.2.6 What to say: questions and answers on infertility

Q. *Are fertility drugs morally acceptable?*

A. Church teaching encourages the use of anything that can resolve the problem of fertility, such as hormonal treatment and various surgical interventions, as long as these treatments assist and do not replace the natural processes of reproduction through sexual intercourse. In such a case, they are morally acceptable and consistent with authentic human good.

Q. *Are there physical consequences in a child who is conceived in vitro?*

A. Yes. Besides a higher risk of premature birth, scientific studies reveal a 25% increase in birth defects among children conceived by IVF or ICSI compared with children who are conceived naturally. In particular, anomalies of the cardiovascular, urogenital and musculoskeletal systems are observed.

Q. *What are the psychological consequences for the couple who uses IVF to conceive a child? What about the child conceived with a donated egg or sperm?*

A. ART is very trying psychologically for the couple because of the intrusion of medical personnel into their intimate relations. The father finds that he is excluded from the conception of his child, which has become a collaboration between the wife and practitioner. The parents also suffer psychologically from freezing and destroying some of their embryos.

Children conceived by IVF with donated gametes can experience similar problems as some adopted children. They can be affected by not knowing their biological parents. We all like to know where we came from – to know our parents, who gave us the colour of our eyes, our hair, our smile.

Q. *My cousin “adopted” an embryo and now has a beautiful little boy. Does the Church approve of embryo adoption?*

A. The issue of “embryo adoption” arose because artificial reproductive technologies often require that more eggs be fertilised than it is wise to transfer to a woman’s uterus. As a result, clinics frequently freeze these embryos for later use or, with the permission of the donors, donate them for research purposes. The Church opposes this kind of manipulation and creation of new human life as not respecting the dignity of human life.

Yet, there exist thousands of embryos that are destined for destruction of experimentation. In *Dignitatis Personae*, the Church recognised the good intentions of people who would want to give these embryos a chance to develop fully as human beings. Nonetheless, the Church notes that the methods used to carry the child to term are morally objectionable because of reasons mentioned earlier – that the child is not conceived as a result of sexual intercourse of spouses, the danger of a third party or more in the process of bringing forth new life, and the ongoing fear of treating new life like a product.

One can almost hear the frustration of the teaching office of the Church as it states that these “abandoned embryos” are “*a situation of injustice which in fact cannot be resolved*”. Nonetheless, we are reminded that every child who comes into this world, regardless of the moral failures of those responsible, is ultimately a gift from God.

Q. *I read about a couple who had a baby by means of artificial reproductive technologies in order to provide a perfect match of bone marrow for their sick daughter. Does Church teaching approve of this way to cure a disease in a child?*

A. There are many aspects to this question, some related to the Church’s opposition to embryonic stem cell research and to some artificial reproductive technologies. A chief concern is that the



dignity of each human life and that human beings must not be used as a means to an end. While sympathetic to the sufferings of those who are ill and dying, the Church holds that the means used to respond to such tragedy must respect human dignity and life in all areas.

When parents try to conceive a child who is a perfect match for their sick child, certain technologies must be used that offend human dignity. First of all, conception would take place in a laboratory, not through sexual intercourse. If an ongoing danger is that new human life might be treated as a product of our own making, this fear is more relevant in the present case. In fact, after embryos are created, only the one(s) that match perfectly the sick sibling would be considered for transfer to the mother's womb. In that selection process, other embryos would either be frozen or discarded precisely because they do not fit the wishes and hopes of the parents and medical personnel.

Further, there is potential harm to the child who is born. Although she might rightly be called a heroine for helping and perhaps even saving her sibling, the child might wonder whether she was ever wanted for herself.

While the Church encourages us to welcome human life in whatever way it comes to us, Church teaching would still consider this practice morally wrong because of the harm and potential harm done to one or more human lives while seeking benefit for another one.

*"I am the product of IVF conducted with the sperm of a man, my biological father, and the ovum of a donor, my biological mother. Then I grew inside the body of another woman, my surrogate mother. Now I live with my two adoptive parents...**who are my parents? Who am I?**"*

- *thoughts of a child conceived through artificial reproductive technologies*

### **3.3 References**

1. Dignitatis Personae
2. Donum Vitae
3. Evangelium Vitae
4. *Life, Death and Catholic Medical Choices – 50 Questions From the Pews* (Kevin O'Neil, CSSR & Peter Black, STD)
5. *A Student's Guide to Bioethics* – Jérôme Lejeune Foundation
6. Zoloth L, Henning AA. Bioethics and Oncofertility: Arguments and Insights from Religious Traditions. *Cancer Treat Res.* 2010; 156: 261–278. doi: [10.1007/978-1-4419-6518-9\\_20](https://doi.org/10.1007/978-1-4419-6518-9_20)
7. <http://www.cmq.org.uk/CMQ/2012/Nov/naprotechnology.html>