

# ESHRE Task Force on Ethics and Law 13: the welfare of the child in medically assisted reproduction

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**The analysis of the welfare of the child in the context of medically assisted reproduction is divided in two parts: the first part addresses the risks associated with the would-be parent(s), the second part focuses on possible risks inherent in the technologies and treatments themselves. The risk factors connected with the intended parents may be medical and psychosocial. Two important considerations are raised here: the necessity to avoid discrimination and respect for the privacy of the patients. The second part concerns the ethical questions involved in the rapid dissemination of new technologies in assisted conception. Technology and research must always be subordinate to the welfare of the future offspring. The different steps involved in the responsible application of medical technologies to treat infertility are analysed.**

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The child has not always been considered by the parents and society at large the way it is at present in Western society. In the middle ages, children were often abandoned as soon as they acquired minimal autonomy. Infanticide and abandonment were very frequently performed in the 17th and 18th century. Only when the child became the object of intentional choice rather than the result of chance, did the idea of respect for the child as a future autonomous person with his or her own interests emerge. The welfare of the child as a moral concern is a relatively new notion. This concern is the result of a complex evolution from chance to choice supported by increased knowledge in genetics, new preventive options and technological innovations enabling parents to have healthy children.

This document considers questions regarding the welfare of the child in the context of medically assisted reproduction. The central question is whether the fertility specialist has a responsibility towards the future child and if so, what the practical implications of such responsibility are.

In view of the complexity of the issues, the paper consists of two parts: the first part addresses the risks associated with the would-be parent(s), the second part focuses on possible risks inherent in the technologies and medical treatments themselves.

## **Part I: assessment of the risks associated with the would-be parent(s)**

### ***Responsibilities***

In natural conception, the intentional parents are responsible for the health and well-being of the child. They should provide reasonable care up to the age when the child reaches

adulthood. Moreover, given the fact that they initiate the project by which the child comes into existence, they should be able to handle his or her care without constant support from others.

From the moment that the person or couple encounters difficulties in getting pregnant, they may appeal to the services of a fertility specialist. Some people question the responsibility of the professional for the future well-being of children resulting from any infertility treatment. Two important objections to attributing responsibility for the welfare of the child to the physician are frequently made: (i) fertile couples are not selected or licensed to procreate and selection of subfertile couples on the basis of predicted lower welfare thus comes down to discrimination, and (ii) the presumed responsibility of the physician frequently expresses prejudice and arbitrariness. The fertility specialist's responsibility is due to the specificity of infertility treatment. Its specificity lies in the fact that treatment is not limited to managing a medical or physical deficiency but that it results ideally in the conception of another person. The physician carries joint responsibility for the welfare of the child because of his or her causal and intentional contribution to the parental project. The physician must take into account presently known risk factors for the welfare of the future child. To avoid prejudice, arbitrariness and discrimination, objective evidence must be sought to be able to offer good reasons for refusing assistance.

This requirement does not only apply to IVF but to all medical interventions enabling procreation (including e.g. microsurgical interventions for refertilization after sterilization and hormonal stimulation).

In large centres, the request by the patient is considered by a team of specialists, each of which has his or her own professional responsibility. This implies that all collaborating professionals share the responsibility for the decision. However, to simplify phrasing and to cover all types of practices, we refer to the fertility specialist as the person who takes the final decision.

### ***Weighing risk factors for the child***

#### *Different categories of risk factors*

There are numerous factors that may have implications for the welfare of the child.

- 1) Medical conditions of the would-be parent(s) which include transmittable, genetic and infectious (HIV, Hepatitis B and C) disorders as well as medical conditions of the would-be parents which may carry health risks for the child like serious physical disability which impedes functioning and/or reduces life expectancy and substance abuse.
- 2) Psychosocial factors: child abuse, violence in the family, addiction, mental retardation, psychiatric disorders, poverty, single women and widowhood, . . .

Some conditions are more easily quantified and verified than others.

#### *Standards*

Even when reliable information is available regarding the effects of certain conditions or characteristics on the quality of life of the child, one should still decide whether or not to treat. In order to do this, a standard is needed to evaluate the possible adverse consequences. Three different standards can be distinguished. The strictest standard is the 'maximal welfare' standard. According to this standard, no medical assistance should be provided when there are indications that the life conditions of the future child will not be optimal. The opposite standard is the 'minimum threshold'. Medical assistance to reproduction is only unacceptable if the quality of life of the future child is so low that it would have been better off not to have been born. The intermediate standard is 'reasonable welfare'. Following this standard, assistance is acceptable if the future person will have the abilities and opportunities to realize those dimensions and goals that in general make a human life valuable.

The physician's ethical position is linked to his or her obligation of care which includes responsibility both to the would-be parents and to the future child. When the predicted level of well-being of the future child is estimated to fall below the standard of reasonable welfare (e.g. when there is a high risk of serious harm), the physician has an obligation to refuse participation. There is a grey zone around the reasonable welfare level in which the physician may participate but collaboration is not obligatory. Above the level of reasonable welfare, the physician should assist on the basis of his or her professional position.

#### *Procedures for information gathering and data collection.*

*Investigation.* In order to be able to make a risk assessment and a well-informed decision, clear and relevant data are needed. Obtaining this information may conflict with two elements: the privacy of the patient and his or her family and practical

limitations, including the work load of the physician. Some information may not exist, may be difficult and costly to obtain (in terms of time, effort) and may be hard to interpret. The physician is not a detective and cannot be expected to behave as one. Mutual trust should remain a basic value in the patient-physician relationship. The physician should be allowed to accept certain declarations by the patient as true without verifying them.

The physician should not contact outsiders on a routine basis. The obligation to verify only exists when the physician has reasonable grounds for doubting either the information provided by the would-be parent or the patients' parenting capacity. In agreement with the general attitude in society towards reproduction, there is a presumption that the minimal child-rearing capacity is present. Because the physician is expected to take into account the interests of the future child, he or she should, in case of doubt, be provided with the means to check information provided by the would-be parent(s). Still, consent to obtain information from outside the clinic should always be sought. No outsiders can be contacted to corroborate a patient's story without his or her consent. The patients should be informed that dissenting may imply refusal of treatment. The staff may consider the information as crucial and can refuse to start treatment without it.

Beside information about possible risk factors regarding individual would-be parents, empirical evidence on risk factors in specific population samples (e.g. post-menopausal women) is also needed. While treatment in certain conditions or treatment of people with certain characteristics may be acceptable given the uncertainty regarding the consequences for the future child, such treatment should be followed by long-term follow-up studies in order to diminish the uncertainty. The patients should be informed about the uncertainties and their participation in follow-up research should be requested. Because of the complexity of determining the quality of life of a future child and because of the lack of clearly delineated standards to evaluate the welfare of the child, patient and physician may disagree on the interpretation of the available evidence.

Regarding genetic diseases, it is neither advisable nor feasible to preconceptionally screen would-be parents for every detectable genetic disease. Specific tests can be ordered for members of specific families or subpopulations. One should not strive for a zero risk.

*Consultation.* If the physician is uncertain about the evaluation of any medical or non-medical (psychological, relational or social) aspect of the patient's situation, the decision must be made after consulting with experts from other relevant disciplines such as psychology, psychiatry, counselling, genetics and paediatrics.

#### *Procedural solutions when there is a conflict between patient and physician*

The autonomy of the patient is not absolute. Precisely because of the physician's collaboration, his or her autonomy is

involved too. Two strategies can be applied whenever there is a conflict between patient and physician:

*Conditional treatment.* If the physician considers a certain condition as too risky, he or she may decide to collaborate only if the risk for the future child can be diminished. The type of condition depends on the risk factor. These conditions may include additional testing (like preimplantation genetic diagnosis in case of high genetic risk), postponement, changing circumstances (like clarification of the relationship), psychological support, use of donor gametes, etc. Moreover, these conditions should be linked to the reasonable welfare standard and to good clinical practice.

*Refusal of treatment.* Apart from reasons related to the welfare of the child, the physician may have other reasons (deontological, conscientious, religious . . .) for refusing assistance to treatment. Hence, some physicians may have philosophical, ideological or religious objections against certain types of treatment that are not related to the welfare of the child. Such objections of conscience should be respected. The patient can be referred to a colleague or fertility centre, i.e. known to be willing to consider such requests. Since referral may also be considered as a form of complicity, alternative systems of information dispersal to patients, fully independent from the individual physician who refuses to assist in reproduction, should be established. One might consider a website presenting information on the different options provided by fertility clinics.

## **Part II: assessment of the risks of assisted reproductive technologies**

### *General principles of research ethics*

There is a rapid dissemination of new technologies in the field of medically assisted reproduction. The developments in the field of medically assisted conception may have different goals; preventing the birth of children with malformations, enhancing fertility, increasing the efficiency of the technology, diminishing ethical problems, increasing autonomy, reducing cost of treatment, simplifying protocols, etc. However, the widespread adoption of new techniques frequently takes place without the necessary evaluation of their efficacy, effectiveness, safety and social and economic consequences. Application of new treatments without safeguards for the health of the resulting children resembles the premature introduction of new drugs without proper research.

Technology and research must always be subordinate to the welfare of the future offspring. In other words, the interests of future offspring must prevail on the development and progress of science. The proportionality principle demands that the possible harm to the people involved (including the future child) is outweighed by the possible benefits.

Adequate research serves both the welfare of the child and public health (i.e. preventing multiple pregnancies) and enables would-be parents to make better informed decisions.

### *Steps to be discerned*

#### *Animal studies*

Animal studies should be done whenever they are feasible and useful. The usefulness of the studies is determined by the

transferability of the findings to humans. Animal studies are especially interesting when one needs information on the health of the offspring and on the possible transgenerational consequences since they allow the study of several generations within a short time span. Such studies have for instance been useful to obtain better knowledge regarding oocyte freezing and embryo biopsy. Even though species-specific elements or factors are always involved, animal studies may nevertheless provide partial insight in certain processes. In order to increase their usefulness, experiments should preferentially be conducted on several species.

As the findings of the animal models are rarely fully transferable to humans, additional experiments on humans should always precede clinical application on humans.

#### *Preclinical embryo research*

Research on embryos may be useful to study the influence of different factors and interventions on the development and growth of the embryo, epigenetic processes, genetic health, etc. If so, such experiments are necessary to verify the consequences of any alteration of the normal process of fertilization and embryo development. Some kinds of research will be possible using surplus embryos, while other types of research may require the creation of embryos. Oocyte freezing and *in vitro* maturation may serve as examples here. A necessary condition of preclinical embryo research is that the embryo is not transferred for reproduction afterwards. It is illogical to affirm one's commitment to the welfare of the child while prohibiting proper preclinical embryo research. Prohibiting such research implies that risky experiments are carried out on children and would-be parents.

#### *Clinical trials*

Three types of procedures can be distinguished: (i) standard procedure, (ii) modifications to standard procedures and (iii) new techniques. Even for standard procedures like embryo freezing, hard data on the effects on the health of the children are lacking. Modifications to standard procedures and new techniques should be the subject of clinical trials in order to obtain the relevant information. It is notably difficult to find a framework to decide when a change is sufficiently important to justify or require a clinical trial. Generally speaking, it could be argued that studies should be conducted whenever there is a theoretical risk of complications or harm from a procedure or technology to either the parent(s) or the future child. However, this will not help us much since every change in instrument, product (like culture medium) or technique holds a theoretical risk. A number of questions may help to qualify this risk: does the procedure imply a manipulation of gametes and/or embryos? Are the changes to the processes known and understood? Should additional data be obtained by nonclinical experimentation? Do the available data on the outcome and efficiency support further clinical investigations? On the basis of answers to questions like these, researchers should decide which steps should be taken.

There should be a continuous evaluation with immediate feedback if serious deviations are noticed. The interim analysis allows for a fast reaction when there are alarming findings.

Nevertheless, apart from these cases, the rules of statistical analysis should be respected when designing and performing the study. One should also take into account the possibility of a learning curve. Health technology assessment studies have shown that the real effectiveness of a modification or technique may only be found when health care professionals are experienced and are familiar with a new instrument or technique.

The clinical trials should ideally be multi-centered to avoid a bias due to centre-specific factors and the data should be collected via online registration.

#### *Follow-up studies*

Participation in follow-up studies is subject to informed consent by the couple or parent. Since some follow-up studies may be long-term, it should be kept in mind that from the moment that the child is considered competent, he or she should give consent for the study. This also implies that the parents should be made aware that their child will be informed of the way it was conceived.

Consent should be asked before the start of treatment to avoid selection bias. Given the importance of data on the outcome of certain procedures, it is acceptable to exert moral pressure on the couples for which the new technique is applied. It should be made clear to the patients that this information is indispensable to determine the safety of the technique. Moreover, they should realize that their own treatment is made possible by other couples who accepted to collaborate in earlier studies. Participation in follow-up could be made a condition for treatment. However, motivated patients who are convinced of the importance and additional value of follow-up, both for their own child and for fertility treatment in general, may be more willing to collaborate in the long run.

The duration of the studies should be adapted to the type of risk that is foreseen. Some diseases cannot be diagnosed at birth but only after a few months or years. Other disorders may be late-onset or even transgenerational. Learning problems and psychosocial difficulties may also only be revealed later in life. Extension of the study into adulthood may thus be necessary.

These studies should be performed by independent research teams that are not involved in infertility treatment. The money

needed to perform adequate follow-up in the first years of life should be guaranteed in the original research proposal. Moreover, the inclusion of a realistic plan for long-term follow-up and availability of funding should be conditions for the acceptance of a clinical trial.

Depending on the specific kind of risk, children should be followed and evaluated by a paediatrician, geneticist and/or psychologist. In order to allow comparison of the results across different centres and countries, standardized protocols should be developed and filled out by experts. There must also be a possibility to return to the original patient files in the fertility centres. Therefore, the creation of data banks and registries should be encouraged.

#### **Recommendations**

- 1) The fertility specialist should refuse to collaborate in the parental project of the would-be parents if he or she judges that there is a high risk of serious harm to the future child. He or she should take into account the presently known risk factors.
- 2) The physician should verify conditions and information provided by would-be parents only when he or she has doubt about the veracity of the information or about the parental capacity of the would-be parents.
- 3) When a physician disagrees with the request of the would-be parents, he or she can try to solve the conflict by offering conditional treatment or he or she can refer the would-be parents to a colleague.
- 4) The adoption of new techniques should be preceded by a thorough evaluation of their safety, efficacy, effectiveness and social and economic consequences.
- 5) The interests of future offspring should always prevail on the development and progress of science.
- 6) Animal studies and/or preclinical human embryo research should be performed to guarantee as far as possible the safety of the procedures.
- 7) A realistic plan for follow-up and funding to conduct the follow-up should be available before the start of a clinical trial.