



**CONSELHO NACIONAL DE ÉTICA PARA AS CIÊNCIAS DA VIDA**  
**NATIONAL COUNCIL OF ETHICS FOR THE LIFE SCIENCES**  
Presidency of the Council of Ministers

51/CNECV/07

**OPINION OF THE NATIONAL COUNCIL OF ETHICS FOR  
THE LIFE SCIENCES**

**OPINION ON “PRE-IMPANTATION GENETIC  
DIAGNOSIS”**

(April, 2007)



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Considering that,

- a) the genetic study of embryos *in vitro* may identify the existence of genetic anomalies causing severe hereditary diseases and congenital malformations;
- b) this study also makes it possible to identify the sex of an embryo, namely in those cases where there is a high risk of the embryo carrying a severe genetic disease linked to the X chromosome;
- c) the diagnosis of the genetic characteristics of an embryo, known as pre-implantation genetic diagnosis (PGD), is necessarily carried out using assisted reproduction technologies (ART);
- d) PGD also permits immunological compatibility studies (including HLA typing) in the embryo for cell harvesting in order to treat a fatal disease in another person;
- e) in those situations where there is a medical suspicion that the embryo carries a severe disease or malformation, PGD may limit recourse to pre-natal diagnosis in those disorders;
- f) the law does not define what should be understood as a “severe” genetic disease and there may be difficulties in assessing severity of a disease;
- g) PGD technologies may be used without a medical indication, namely in order to distinguish and, possibly, select for other characteristics of the embryo;
- h) the most relevant ethical issues concerning PGD relate to the *in vitro* selection of embryos (carrying or not the anomaly studied) and to the fate of the non-transferred embryos;

and considering also Opinion n° 44/CNECV/04 on Assisted Reproduction Technologies (ART), namely its contained principle of subsidiarity of ART and the exceptional derogations to it, as well as the “right to ethical and juridical protection of the embryo, independently of its ontological statute”



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The CNECV is of the opinion that:

1. PGD is a technique for diagnostic study and, as such, its implementation does not violate fundamental ethical principles.
2. Decisions based on the application of PGD may lead to situations with different ethical value.
3. Resort to PGD brings up ethical values which, under certain circumstances, may conflict. When it makes possible to avoid the development of a human being with a high probability of being born with or later developing a severe disease that may cause premature death and prolonged and irreversible suffering, recourse to PGD may be positively valued from an ethical point of view.
4. Thus, recourse to PGD may be ethically acceptable, in exceptional cases, when, after medical assessment, at least one of the progenitors proves to carry a hereditary genetic anomaly that may cause a severe disease.
5. The use of PGD should always respect the principle of informed consent, which should be preceded by genetic counselling. This should provide, in a clear and comprehensible way, all the information needed by the parents for decision-making, namely about procedures, success rates, consequences and available alternatives, as well as psychological assessment and follow-up.
6. The use of PGD is ethically unacceptable in the case of diseases with genetically complex aetiology, and it should be restricted to diseases with a high predictive value.
7. The use of PGD to select embryos according to physical characteristics not associated with pathology, namely to choose or improve characteristics considered to be normal, is also ethically unacceptable, as it is contrary to the principle of non-instrumentalisation.
8. The use of PGD to select stem-cell donor embryos, in order to treat a fatal disease in a relative, poses a complex ethical dilemma, in which the principle of solidarity may be considered to predominate. Its resolution supposes a careful analysis of the therapeutic



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possibilities offered by the technologies available, takes into account the wishes expressed by the parents, and should always be the subject of a positive appreciation, case by case, by a specialised committee.

9. The provisions contained in Opinion n° 44/CNECV/2004, namely those under numbers 19 through 26, should be subject to the surplus embryos resulting from the PGD process.

Lisbon, 10th April, 2007

Paula Martinho da Silva

*President*

Conselho Nacional de Ética para as Ciências da Vida  
(National Council of Ethics for the Life Sciences)

*This opinion was approved in plenary sessions on the 13<sup>th</sup> March and 10<sup>th</sup> April, 2007, where the following were present:*

*Paula Martinho da Silva, Agostinho Almeida Santos (Only on 13th March), António Vaz Carneiro, Daniel Serrão, Fernando Regateiro, João Lobo Antunes, Jorge Biscaia, Jorge Soares, Jorge Sequeiros, José de Oliveira Ascensão, Maria do Céu Patrão Neves, Maria Fernanda Silva Henriques, Pedro Fevereiro, Marta Mendonça, Michel Renaud, Miguel Oliveira da Silva, Pedro Nunes (Only on 10th April), Rita Amaral Cabral, Rui Nunes, Salvador Massano Cardoso (Only on 10th April).*