Expanded Neonatal Screening and children's best interests in health

Tamiz neonatal ampliado e interés superior de la niñez en la salud

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Summary

A reform in the General Health Law, whose purpose was to make the expanded neonatal screening mandatory throughout the country, was recently rejected. The ignorance of the responsibility that the Mexican State has with children was evident. This due to their best interest and in accordance with the Constitution and international treaties on human rights, as well as international responsibility in this matter of health and specifically in this population group on prevention and progressiveness towards the achievement of an indisputable ethical act where beneficence and social equity are necessary.

Keywords: best interests of the child, expanded newborn screening, human rights, health.

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1. Introduction

"If we want roses in May,
we must take care of the rose bush from January onwards".
José María M.

On June 28, 2022, in the Health Commission of the Chamber of Deputies, the approval of an initiative to reform the General Health Law to make the Expanded Newborn Screening (ENBS) tests mandatory, which would allow the timely diagnosis of 67 diseases, under the protection that there are not enough resources.

This justification is contrary to the human rights of children, contemplated in articles 1 and 4 of the Political Constitution of the United Mexican States (1), as well as in the General Law on the Rights of Children and Adolescents (2) and in the *corpus iuris* of human rights in this area. This situation makes the authorities responsible for failing to comply with their duty to care for children, thus violating the progressive nature of the right to health, based on the best interests of the child. Likewise, the need for priority attention is violated to one of the most vulnerable population groups, newborns, when there is scientific evidence to help them and provide them with the benefits of a timely diagnosis, both for the children and their parents and health professionals, in order to seek the common good and social equity, under a parameter of prudence.

2. Importance of the application of the expanded neonatal metabolic screening

"Looking for the good in our fellow men will
help us find the good in ourselves."
Plato

Basic neonatal metabolic screening is currently applied to newborns to identify metabolic diseases early and thus provide timely treat-

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ment and prevent serious and irreversible damage to their health that can even endanger their lives (3). Initiating this treatment allows improving the infant's health conditions, quality of life and preventing premature death. This procedure should be performed on all infants between the second and fifth day of birth and before they are 30 days old, which is very useful in the case of rare diseases in which more than 80% are of genetic origin.

This screening, considered a basic test, allows the identification of approximately 6 diseases, which is why it is necessary to make the implementation of the ENBS mandatory (as proposed in the aforementioned opinion), including it expressly in the General Health Law, which can generate a much broader diagnosis of diseases, 67 in particular (4) known as rare diseases, which are often not treated in early childhood because they are not detected in health institutions, due to the lack of resources, infrastructure and trained personnel to perform the tests.

Regarding rare diseases, the World Health Organization (WHO) defines them as those that occur in less than five people per ten thousand inhabitants. Currently, there are more than seven thousand rare diseases recognized by this organization (5), but only ten percent of these have scientific backing and less than 400 have their own treatment.

Due to their high clinical complexity, it is difficult to diagnose and recognize rare diseases, so one of the strategies to detect them in a timely manner is through neonatal screening tests, specifically, the ENBS as mentioned above.

According to the Mexican Federation of Rare Diseases (Femexer) (6), seven million people in our country suffer from these diseases. Most of the causes are of genetic origin so that a family may have more than one member with the same pathology (7). These are serious chronic diseases that in many cases have a high risk of death and can manifest themselves from birth, during childhood or in adulthood.

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Although it is true that since 1998 and as mentioned above, the basic neonatal metabolic screening is a test that is performed on newborns in Mexico, but its universalization has not been achieved in the country's medical units and it is a limited test. It does not detect many diseases, so thousands of girls and boys do not have a timely diagnosis.

However, since 2017 this procedure has made it possible to identify six diseases: primary form congenital hypothyroidism and central congenital hypothyroidism, congenital adrenal hyperplasia, phenylketonuria, biotinidase deficiency, galactosemia and cystic fibrosis. It should be noted that, to date, scientific advances have made it possible to have assessments that are more accurate and to identify potential risks of developing a disease. Therefore, it is necessary to advance in the instrumentation of the ENBS in a mandatory manner, since this will allow a broader diagnosis of diseases, among which are (8):

1. Congenital hypothyroidism.
2. Phenylketonuria due to biopterin III deficiency (PAH).
3. Hyperthyrotropinemia
4. Congenital adrenal hyperplasia, salt-losing variety.
5. Phenylketonuria by deficiency of biopterin IV (PCD)
6. Neonatal transient tyrosinemia
7. Tyrosinemia type I (hepatorenal)
8. Galactosemia Duarte variant
9. Aciduria argininosuccinic aciduria
10. Argininemia
11. Congenital adrenal hyperplasia, simple virilizing variety
12. Tyrosinemia type III (hawkasinuria 4HPPD)
13. Tyrosinemia type II (oculocutaneous)
14. Cystic fibrosis
15. Glucose 6-phosphate dehydrogenase deficiency
16. Classic galactosemia (deficiency of galactose 1-phosphate uridyltransferase)
17. Classic phenylketonuria (phenylalanine hydroxylase deficiency).
18. Phenylketonuria due to biopterin II deficiency (DHPR).
19. Citrullinemia due to argininosuccinate synthetase deficiency.

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20. Citrullinemia due to citrin deficiency.
21. Phenylketonuria by deficiency of biopterin I (GTPDH)
22. Atrophy gyrata
23. Syndrome HHH
24. Homocystinuria
25. Neonatal hypermethioninemia
26. Classic maple syrup urine disease
27. Intermediate maple syrup urine disease
28. 3-methylcrotonylglycinemia
29. Glutaric acidemia I
30. 3-hydroxy-3-methylglutaric acidemia
31. Isobutyric acidemia
32. Isovaleric acidemia
33. Malonic acidemia
34. Holocarboxylase synthetase deficiency
35. Biotinidase deficiency
36. Mut methylmalonic acidemia
37. Methylmalonic acidemia mut 0
38. Defects of maternal vitamin B12 synthesis/ingestion
39. Propionic acidemia
40. 2-methyl-3-hydroxybutyric acidemia
41. SCAD deficiency (acyl-CoA dehydrogenase, short-chain dehydrogenase)
42. Deficiency of MCA (acyl-CoA dehydrogenase of medium chain)
43. Glutaric acidemia II
44. Ethylmalonic acidemia
45. 2-4-dienoyl-CoA reductase
46. LCA deficiency (long chain acyl-CoA dehydrogenase)
47. VLCAD deficiency (very-long-chain acyl-CoA dehydrogenase)
48. Systemic carnitine deficiency
49. Defects of maternal carnitine synthesis/ingestion
50. Carnitine uptake defect 51.
51. Non-ketotic hyperglycinemia
52. Short-chain 3-hydroxyacyl CoA dehydrogenase (SCHAD) deficiency 53.
53. 2-methylbutyrylglycinuria 2MBG
54. Hemoglobin S disease
55. Hemoglobin C disease
56. Hemoglobin S/C disease
57. Hemoglobin E disease
58. Hemoglobin D disease
59. Sickle cell disease with beta thalassemia
60. Hemoglobin C disease with beta-thalassemia
61. Hemoglobin E disease with beta thalassemia
62. Hemoglobin H disease
63. Hemoglobin S disease with alpha thalassemia trait
64. Hemoglobin S/C disease with alpha thalassemia trait
65. Hemoglobin G Philadelphia disease
66. Hemoglobin G disease with alpha thalassemia trait
67. Beta thalassemia major

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In this way, it is necessary to consider that the ENBS test should be carried out. This, in order to treat these conditions on time, and thus ensure that the National Health System as a whole strengthens the mechanisms that allow us to have a reliable identification system. The system establishes the prevalence and the incidence of this type of diseases in the different regions of our country, as well as having better detection schemes, thus reducing the adverse consequences on the health of the affected population, especially girls and boys.

In the initiative, it is argued that some of the diseases that can be detected by means of the ENBS are:

a) Fatty Acid Oxidation Disorders
   - Carnitine/AcylcarnitineTranslocase Deficiency
   - CarnitinePalmitoylTransferase Type I (CPT-I) Deficiency
   - 3-Hydroxy Acyl-CoA Long-Chain Dehydrogenase (LCHAD) deficiency 2,4-Dienoyl-CoA Reductase deficiency
   - Medium Chain Acyl-CoA Dehydrogenase (MCAD) Deficiency
   - Multiple Acyl-CoA Dehydrogenase Deficiency (MADD or Glutaric Acidemia Type II)
   - Neonatal Carnitine Palmitoyl Transferase Type II Deficiency (CPT-II)
   - Short Chain Acyl-CoA Dehydrogenase Deficiency (SCAD)
   - Short Chain Hydroxy Acyl-CoA Dehydrogenase Deficiency (SCHAD)
   - Trifunctional Protein Deficiency (TFP Deficiency)
   - Very Long Chain Acyl-CoA Dehydrogenase Deficiency (VLCAD)

b) Organic Acid Disorders
   - 3-Hydroxy-3-Methylglutaryl-CoA lyase deficiency (HMG)
   - Glutaric Acidemia Type I (GA-I)

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- Isobutyryl-CoA Dehydrogenase deficiency
- Isovaleric Acidemia (IVA)
- 2-Methylbutyryl-CoA Dehydrogenase Deficiency
- 3-Methylcrotonyl-CoA Carboxylase Deficiency (3MCC Deficiency)
- 3-Methylglutaconyl-CoA Hydratase deficiency
- Methylmalonic Acidemias
- 0-Methylmalonyl-CoA Mutase Deficiency
- Deficiency + Methylmalonyl-CoA Mutase
- Some Disorders of Adenosylcobalamin Synthesis
- Maternal Vitamin B12 Deficiency
- Mitochondrial Acetoacetyl-CoA Thiolase Deficiency (3-Ketothiolase Deficiency)
- Propionic Acidemia (PA)
- Multiple CoA Carboxylase Deficiency
- Malonic Aciduria

c) Amino Acid Disorders

- Argininemia
- Argininosuccinic Aciduria (ASA Lyase Deficiency)
- Oxoprolinuria (Pyroglutamic Aciduria)
- Carbamoylphosphate Synthetase Deficiency (CPS Deficiency)
- Citrullinemia (ASA Synthetase Deficiency)
- Homocystinuria
- Hypermethioninemia
- Hyperammonemia syndrome, Hyperornithinemia, Homocitrulinemia (HHH)
- Hyperornithinemia with Circumvolution Atrophy
- Maple Syrup Disease (MSUD)
- Phenylketonuria (PKU)
- Classic PKU
- Hyperphenylalaninemia
- Cofactor (Biopterin) Deficiency
- Transient Neonatal Tyrosinemia

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- Tyrosinemia Type I
- Tyrosinemia Type II
- Tyrosinemia Type III
- Lysosomal Storage Diseases
- Fabry Disease (Alpha-galactosidase deficiency)
- Gaucher Disease (Glucocerebrosidase Deficiency)
- Pompe Disease (Glycogenosis Type ll)
- Krabbe Disease (Galactocerebrosidase Deficiency)
- Hurler's disease (Mucopolysaccharidosis l, MPS-I)
- Niemann Pick A/B Disease (Acid sphingomyelinase deficiency)
- Diseases Detected by Other Technologies - Biotinidase Deficiency (BIOT)
- Congenital Adrenal Hyperplasia (CAH)
- 21-Hydroxylase deficiency - Salt-losing 21-Hydroxylase deficiency
- 21-Hydroxylase deficiency - simple virilizing 21-Hydroxylase deficiency
- Congenital Hypothyroidism (CH)
- Cystic Fibrosis (CF)
- Galactosemia
- Galactokinase Deficiency (GALK)
- Galactose-1-Phosphate Uridyltransferase Deficiency (GALT)
- Galactose-4-Epimerase Deficiency (GALE)
- Glucose-6-Phosphate Dehydrogenase Deficiency (G6PDD)
- Sickle Cell Disease and other Hemoglobinopathies
- Hemoglobin S disease
- Hemoglobin S/C Disease
- Hemoglobin S/Beta thalassemia Disease
- Hemoglobin C disease
- Hemoglobin E disease
- Severe Combined Immunodeficiency Syndrome (SCID)

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d) Primary Immunodeficiencies (PID) also called Inborn Immune Defects
   - Combined immunodeficiencies
   - Combined immunodeficiencies with syndromic features
   - Immunodeficiencies with immune dysregulation

3. Right to health and best interests of the child

"The child deserves the utmost respect".
Decimus Junius Juvenal

Health can be understood, in a first approximation, as a state of balance not only physical, but also psychic and spiritual. In this sense, it can be said that health is one of the essential desires of the human being that constitutes the previous quality to be able to satisfy any other need or aspiration for well-being and happiness (9). Likewise, health is the means that allows human beings and social groups to develop their potentialities to the maximum, i.e., the condition of possibility that allows the realization of the human potential of any person.

For its part, the WHO defines health as "a state of complete physical, mental and social well-being, and not merely the absence of disease or infirmity, to which every person is entitled without distinction of race, creed..." (10). This definition, which has been widely criticized as somewhat utopian and too musicalized, encompasses the integral development of the individual as a person, although it is also possible to be healthy without being in a state of complete physical, mental and social well-being. Health, therefore, can be considered not only as a good to be preserved or recovered, but also as a good that can be enjoyed and increased.

Diego Gracia tells us that:

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> The concept of health is so inseparable from that of illness that it cannot be defined to the exclusion of the latter. Human beings become aware of health through illness. Hence, health can only be defined in a negative way, as the absence of disease (11).

The "highest attainable standard of health" referred to in Article 12.1 of the International Covenant on Economic, Social and Cultural Rights (ICESCR) takes into account both the essential biological and socioeconomic conditions of the individual and the resources available to the State. There are several aspects that cannot be addressed solely from the point of view of the relationship between the state and individuals; in particular, a state cannot guarantee good health, nor can it provide protection against all possible causes of ill health in human beings. Thus, genetic factors, individual susceptibility to a condition and the adoption of unhealthy or risky lifestyles often play an important role in a person's health. Therefore, the right to health should be understood as a right to the enjoyment of a full range of facilities, goods, services and conditions necessary to achieve the highest attainable standard of health (12). From the above, we reflect on the importance of prevention as the effective means for timely health care.

Thus, health involves prevention, promotion and protection activities and implies a comprehensive approach that includes the physical and social environments, as well as other factors related to existence.

On the legal structure of childhood and for the case at hand, which is the best interest of children, established in Article 4 of the Constitution (13) para. 10, 11 and 12, it is established:

> ...In all decisions and actions of the State, the principle of the best interest of the child shall be ensured and complied with, fully guaranteeing their rights. Children have the right to the satisfaction of their needs for food, health, education and healthy recreation for their integral development. This principle shall guide the design, execution, follow-up and evaluation of public policies aimed at children. The ascendants, guardians and custodians have the obligation to preserve and demand

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> the fulfillment of these rights and principles. The State will grant facilities to private individuals so that they contribute to the fulfillment of children's rights.

Article 2 of the General Law of Children and Adolescents (14) establishes:

> In order to guarantee the protection of the rights of children and adolescents, the authorities shall carry out actions and take measures in accordance with the principles set forth in this Law. For this purpose, they shall:
> ...II. ...
> (...)
> The best interests of the child shall be considered paramount in making decisions on a debated issue involving children and adolescents. When different interpretations arise, what is established in the Constitution and in the international treaties to which Mexico is a party shall be taken into account.

The expression "best interests" implies that the development of the child and the full exercise of his or her rights must be considered as guiding criteria for the elaboration of norms and their application in all matters relating to the lives of minors. Likewise, the principle of equality requires the adoption of specific rules and measures that generate a different treatment that takes into account the special conditions of children.

In this regard, and with regard to international human rights law, the Convention on the Rights of the Child and its respective observations serve as support. The following clarifications reinforce the above:

> American Convention on Human Rights (15)
> Article 19. Rights of the child
> Every child has the right to the measures of protection required by his condition as a minor on the part of his family, society and the State.
> Convention on the Rights of the Child (16)

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> Article 3
> 1. In all actions concerning children, whether undertaken by public or private social welfare institutions, courts of law, administrative authorities or legislative bodies, the best interests of the child shall be a primary consideration.

For its part, the Inter-American Court of Human Rights (IACHR) also recognizes the importance of the principle of the primacy of the best interests of the child, stating the following:

> This principle regulating the regulation of the rights of the child is based on the very dignity of the human being, on the characteristics of children, and on the need to promote their development, with full use of their potential, as well as on the nature and scope of the Convention on the Rights of the Child.

Following the same reasoning, the Inter-American Commission on Human Rights (IACHR) considered that:

> The American Convention on Human Rights (ACHR) demands from the States an obligation of special protection for [minors], which transcends the general obligation to respect the rights enshrined in Article 1(1) of the aforementioned instrument, which otherwise cannot be suspended under any circumstances, by mandate of Article 29 of the aforementioned Convention.

In this regard, the advisory opinion of the IACHR Court OC-17 (17), on the matter, states:

> VII BEST INTERESTS OF THE CHILD
> (...)
> 57. In this regard, Principle 2 of the Declaration of the Rights of the Child (1959) states:
> The child shall enjoy special protection and shall have opportunities and facilities, provided by law and otherwise, for healthy and normal physical, mental, moral, spiritual and social development, as well as freedom and dignity. In enacting legislation to this end, the best interests of the child shall be a primary consideration (18).

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The Committee on the Rights of the Child establishes that "the objective of the concept of the best interests of the child is to guarantee the full and effective enjoyment of all the rights recognized by the Convention and the holistic development of the child (19), where States interpret the term "development" as a "holistic concept" encompassing the physical, mental, spiritual, moral, psychological and social development of the child.

On the particular and at the local level, the following titles of jurisprudential theses can be observed, among others, which confirm what has been stated in the international arena:

> Best interest of the minor. Its concept (20), Best interest of the minor. Scope of this principle (21), Best interest of the child. Its normative function as an interpretive guideline to resolve conflicts due to incompatibility in the joint exercise of children's rights (22), best interest of the minor. Its scope and regulatory functions (23).

From the above it is clear the great importance that should be given to children, from the *corpus iuris* of human rights and its evolution at the local level, which should be transforming the institutions, norms and ways of attending this group that historically has suffered violation and abuse of the elderly.

To understand better how to address childhood development in an adequate and healthy manner, it is appropriate to see what the I/A Court HR has indicated about the principle of evolutionary interpretation (24). By virtue of which it is affirmed "that human rights treaties are living instruments, whose interpretation has to accompany the evolution of times and current living conditions" (25). In this understanding, the most appropriate thing for a better development of children is to adapt to scientific and medical development, based on evidence, proportional and ethical, having the appropriate means to prevent and attend the health of all those born in the Mexican territory, under the protection of the ENBS.

Advancing in the detection of 67 diseases is a progressive act of human rights established in the Constitution in paragraph 3° and in

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the right to health in Article 26 of the International Covenant on Economic, Social and Cultural Rights (ICESCR).

The principle of progressivity that governs the matter of human rights implies both gradualness and progress. Gradualness refers to the fact that, generally, the realization of human rights is not achieved immediately, but involves a whole process that entails defining short-, medium- and long-term goals. Progress implies that the enjoyment of rights must always improve. In this sense, the principle of progressivity of human rights is related not only to the prohibition of regressiveness of the enjoyment of fundamental rights, but also to the positive obligation to promote them in a progressive, gradual and effective manner.

For its part, the Committee on Economic, Social and Cultural Rights (CESCR) understands progressive realization to mean "proceeding as expeditiously and effectively as possible with a view to achieving that objective"(26). In particular, Article 2 (1) of the ICESCR (27) states:

> Article 26. Progressive Development. The States Parties undertake to adopt measures, both internally and through international cooperation, especially economic and technical, to achieve progressively the full effectiveness of the rights derived from economic, social and educational, scientific and cultural norms. These contained in the Charter of the Organization of American States, as amended by the Protocol of Buenos Aires, to the extent available resources, through legislation or other appropriate means.

The progressive content of Economic, Social, Cultural and Environmental Rights (ESCR), which includes the right to health, generates a prohibition of regression. States are obliged to improve the conditions of enjoyment and exercise of ESCR through measures that are deliberate, concrete and oriented towards the full realization of the recognized rights. Therefore, the State cannot adopt policies, measures or legal norms that unreasonably worsen the situation of these rights. It can be established that "the principle of progressivity

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is violated when progress is not made in order to achieve the principle of universality in health coverage" (28).[1]

In addition, and as stated in the Limburg principles (29): "to achieve progressively...the full realization of the rights..." (21). The obligation to "achieve progressively...the full realization of rights" requires States Parties to act with all possible speed to achieve the realization of rights. Under no circumstances is this to be interpreted as implying that States have the right to postpone indefinitely efforts to ensure full realization. On the contrary, all States parties have an obligation to begin immediately to adopt measures aimed at fulfilling their obligations under the ICESCR (22). Some of the obligations under the Covenant require full and immediate implementation by each State Party, such as the prohibition against discrimination stipulated in Article 2 (2) of the Covenant (23). The obligation of progressive realization exists independently of any increase in resources; it requires effective utilization of available resources (24). In addition to an increase in resources, progressive realization can also be achieved by developing the resources within society that are necessary to achieve the full realization of the rights enshrined in the Covenant for all persons.

To this end, any decision must be made after full consideration of all possible alternatives and based on due justification against a commitment to the full use of the maximum available resources. In human rights matters, the burden of proof on regressive measures. The management of limited resources must be handled in the most efficient manner, which cannot be arbitrary, but must take appropriate measures.

The expression "to the maximum of their available resources" used in international law includes resources from international assis-

[1] Sentence C-130 of 2002 stated that "although the progressive development of social security to achieve full coverage of health services for all inhabitants (...) must be done gradually, for which existing resources at a given time play a decisive role, this cannot be an obstacle to achieving that goal in the shortest possible time, because if it is not fulfilled promptly, the essential purposes of the State would be ignored and, therefore, in flagrant violation of (the Constitution)".

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tance and cooperation (30). Budgets should include provisions to ensure effective accountability, including monitoring, access to justice for the poor, and judicial and non-judicial accountability mechanisms to facilitate timely redress. This is unacceptable, especially for the most vulnerable population, such as newborn children.

After a general analysis of the right to health, it is important to point out that General Comment 14 of the Committee on Economic, Social and Cultural Rights (31) establishes that the right to health encompasses four essential and interrelated elements: availability, accessibility, acceptability and quality. However, it is important to highlight a fifth element for the specific group of children called "efficacy", which finds its support in General Comment 15 on the right of the child to enjoy the highest attainable level of health. This emerges from the article 24 of the Convention on the Rights of the Child (32), a right that must be effective in this population group in the sense that all children have the right to opportunities for survival, growth and development in a context of physical, emotional and social well-being to the best of its possibilities. This in a continuous and orderly manner, where the first step is made up of the availability of health establishments, goods and services.

4. The application of ENBS is an ethical act.

> "Science without Conscience is nothing but the Ruin of the Soul".
> "The Conscience that is missing here is not the Moral Conscience,
> it is Consciousness without more, that is to say,
> the aptitude to conceive itself.
> From now on, if we want to be logical with our intention,
> we will necessarily have to assume the problem of science".
>
> Edgar Morín.

Bioethics proposes a reflection on the value of human life and the dignity of the person from rational assumptions and in the light of ethical values and principles, highlighting ethics as the most important

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element in the interdisciplinary nature of this discipline. We can then point out that, "Ethics is the dwelling or place where one lives, and it is the refuge of every person, the impregnable fortress of the human being. It is firm ground on which to walk through life. Ethics is a lamp that illuminates man in his life" (33). In the case at hand, it orients the search for a specific duty to be in medicine.

One possesses ethics when one manages to establish, for oneself, a set of virtues that become principles under which one's conduct is governed. Which, in the actions of legislators is a great absence of these, economically repressing a basic need in a group in a vulnerable situation such as all children, where the application of prudence and justice are essential in the issue of health.

It is noteworthy that bioethics seeks the most appropriate in sustaining life, with proven scientific bases, making a decision that is consistent and necessary for the common good and respecting the human rights of all people and, in particular, the defenseless and vulnerable, as is the case of newborns.

The legislative omission, which becomes negligent —by knowledge of cause—, ignores the otherness and needs of the most vulnerable, losing the relationship of good government, which pretends to be a solidary and respectful bond. To the extent that it is interested in giving a good sense to human life, this would be achieved through the instrumentalization of necessary processes to prevent future damages, in a proven, efficient and necessary manner and under the bio legal principle of prevention, oriented to achieve certainty, in this case, of the results of the tests.

The correct path of all human action must start from the synderesis "do good and avoid evil", and from medicine in the negative sense as "first do no harm", the same that leads to two needs that are implied in it and that, however, also have, by themselves, a character of principles: "conserve existence" and "preserve the species".

This openness to the environment as a function of the preservation of existence leads us to a new principle: "treat others as you want to be treated," emphasizing human dignity, the basis of human

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rights. Likewise, Jürgen Simon has devoted special attention to human dignity as a regulating principle in bioethics (34).

The criterion guiding bioethical interventions should be to avoid any possible catastrophe (35), to which, if there is certainty in the application of ENBS, it will serve to prevent any affection or to face any of the detected diseases.

In this sense, the physician, judge, politician, legislator, scientist and in general any deontic operator, must be a philosopher, that is to say, he must attend to the ethical (moral) and dianoetic (logical) virtues of the lover of wisdom due to the evidence available.

Reinforcing what has been said, under the protection of the principles of therapy, freedom and responsibility, solidarity and subsidiarity, beneficence and justice, the following are specified one by one with the case at hand:

- Therapeutic: the benefit of the whole must always be sought, in the sense that any diagnosed damage can be avoided by calculating its care rationally.
- Freedom-responsibility: freedom is exercised with knowledge of the cause and is exercised in a responsible and coordinated manner between the patient, the physician and jointly and subsidiarily (other principles) with the family, guardian, society in search of the good of the person.
- Beneficence: when the diagnosis is made, a preventive or active treatment will be channeled for the benefit of the person.
- Justice: social for the benefit of the most needy and excluded, providing a balance in the inequality and, personal by attending proportionally to the patient with the scientific elements provided by the ENBS.

And even more of a social equity, in a country where inequality and poverty is increasing. Therefore, the application of the ENBS is an obligation of the State and under the protection of the best interest of the child, the best conditions of life should be sought, under the scientific evidence currently available.

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In this sense, bioethics should also take into account a concept of long-term responsibility, such as that suggested by H. Jonas in his volume "The principle of responsibility" (36), for present human beings and for future generations, already recognized by Aristotle as prudence and nowadays as the principle of precaution (a principle recognized within bio legal science).

5. Conclusion

"All older people have started out as children"
(Although few remember it).
The Little Prince

Children continue to be the most vulnerable group of the population, in spite of the entire legal framework that exists, since public policy is not harmonized with legal norms, scientific advances and ethics. The otherness of the most vulnerable is denied. A State that does not care about its new generations denies their present and future.

We are talking about recognized rights, not privileges or favors. It is an ethical duty to those most in need. Therefore, we can conclude that it is an obligation of the Mexican State to implement the use of the ENBS, in accordance with human rights, established in the Constitution and international treaties on the subject, due to the best interests of children in the health field, to safeguard their health, personal integrity and even their lives.

It is necessary not to fall into negligence, due to the preventable and attainable consequences, by omission, tending to a responsibility of the State in the internal and international scope. Legislation and public health policies must be directed to the benefit of the most vulnerable, as an ethical duty, to always seek the common good of the newborns, due to a beneficence throughout their development and under a social equity, because of the inequality faced by Mexican society.

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