



*Presidenza del Consiglio dei Ministri*

**NATIONAL BIOETHICS COMMITTEE**

**PREMATURE INFANTS. BIOETHICAL NOTES**

29th February 2008

## Presentation

In the spring of 2006, the *Recommendations for perinatal treatment at extremely early gestational ages* were put to the NBC for a bioethical evaluation. They are generally defined as the “*Carta di Firenze*” or *Charter of Florence*, a document aimed at identifying the best clinical and ethical criteria for the treatment of very premature infants.

The Committee considered that it had the unquestioned duty to formulate a response, but that it was impossible to tackle the complexity of the matter with the due attention owing to the few months left to its deadline (June 2006). During the Committee’s sitting in December 2006 one of the first resolutions decided unanimously concerned the reexamination of the issue, the setting up of a work group (coordinated by Prof. Francesco D’Agostino and composed of Prof. Salvatore Amato, Adriano Bompiani, Antonio Da Re, Lorenzo d’Avack, Carlo Flamigni, Assunta Morresi, Andrea Nicolussi, Monica Toraldo di Francia, Grazia Zuffa), and the hearing of the promoters of the *Charter* (in particular Prof. Giampaolo Donzelli and Maria Serenella Pienotti) and other well-known neonatologists (in particular Prof. Carlo Bellieni).

With regard to many aspects the considerations drawn up by the Committee went beyond the main questions of the *Carta di Firenze*. This was also because lively debate had begun on the issue in Italy, which was also to become the subject of various scientific meetings and more recently of a joint document signed by the Directors of Obstetrics and Gynaecology Clinics and by many neonatologists of all four Faculties of Medicine of the University of Rome, and presented in Rome at the beginning of February 2008.

Our opinion, edited by Prof. Francesco D’Agostino with the contribution of all the members of the working group (and in particular Prof. Adriano Bompiani and Prof. Andrea Nicolussi), was discussed by the NBC in the plenary session of 25 January 2008 and approved on 29 February 2008, with votes in favour by Prof. Salvatore Amato, Prof. Luisella Battaglia, Prof. Adriano Bompiani, Prof. Roberto Colombo, Prof. Francesco D’Agostino, Prof. Antonio Da Re, Prof. Lorenzo d’Avack, Dr. Riccardo Di Segni, Prof. Emma Fattorini, Prof. Marianna Gensabella, Prof. Assunta Morresi, Prof. Andrea Nicolussi, Prof. Vittorio Possenti, Prof. Rodolfo Proietti, Prof. Lucetta Scaraffia, Prof. Giancarlo Umani Ronchi, and votes against by Prof. Carlo Flamigni, Dr. Laura Guidoni, Prof. Claudia Mancina, Prof. Demetrio Neri, Prof. Monica Toraldo di Francia and Prof. Grazia Zuffa. Prof. Laura Palazzani, absent at the plenary, and Prof. Stefano Canestrai, Prof. Maria Luisa Di Pietro, Prof. Aldo Isidori and Prof. Romano Forleo, having left the sitting before voting took place, however expressed their support for the document.

To the opinion is attached the declaration of vote of Prof. Carlo Flamigni, Prof. Claudia Mancina, Prof. Demetrio Neri, Prof. Monica Toraldo di Francia and Prof. Grazia Zuffa, whose intention was to briefly summarize the reasons for their dissent to the document. Professors Silvio Garattini and Alberto Piazza, who were not present at the plenary session on 29 February 2008, also adhered to these reasons. Comments by Dr. Laura Guidoni are also attached, in which she gives her reasons for voting against the document.

The President

Prof. Francesco Paolo Casavola

Rome, 4 April 2008

## SUMMARY

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## THEMATIC CLASSIFICATION

1. In recent decades a medical and ethical debate has evolved in many countries, even to quite a dramatic extent, concerning the *decision* to suspend the life-saving and intensive care treatment of babies born at a very early gestational age or affected by severely disabling pathologies, fundamentally on the basis of the judgment with regard to their future and precarious “quality of life”. Such debate has in some cases been extended to include the question of the legality of decisions on the practice of active neonatal euthanasia.

1.1. Since 1970-1980 extensive literature on the ethical and legal implications of such decisions has been produced [STAHLMAN (1990); FORST (1981); SMEDIRA et al. (1990); DEP OF HEALTH (1985); RUARK et al. (1988); KOPELMAN et al. (1988) etc.], just as the reaction of the parents has been described, at the moment of and following the decisions taken by physicians [SALNIT et al. (1961); WHITE et al. (1984); KENNEL et al. (1970); BENFIELD et al. (1978)] (for example, depression, breakdown of family relationships, etc.). Similarly, the reactions of paediatric staff faced with these tragic decisions have also been examined [TODRES et al. (1974); WALLER et al. (1979); TO-DRES et al. (1977); ROSINI et al. (1974); HERZOG et al. (1990); ZEANACH et al. (1982); JELLINEC (1992)].

1.2. In the 90s these issues were further investigated, while at the same time significant progress was made in healthcare techniques and neonatology. In this decade in particular the use of cortisone during labour, along with the use of pulmonary surfactants and intermittent mechanical ventilation were routinely used as therapeutic instruments, which improved the prognosis of survival. Moreover in all the countries with more advanced healthcare equipment, the advantage is also evident of the “centralization” of the treatment of “cases at risk” of premature birth in highly specialized obstetric- neonatology centres (the so-called III level)<sup>1</sup>.

2. Furthermore, it does not seem that a prevalent “style” has really been consolidated over recent years in the response of the various centres to the problem of the treatment of babies at risk

2.1. Considerable variations have been described in the “style” in which these problems have been faced by neonatologists and above all by the “intensivists” of different countries [SAUER (1990); DUFF et al. (1973); NISHIDA et al (1992); YOUNG et al (1990); MINK et al (1992); LANTOS et al (1992), (1993); RHODEN (1986)]. By referring to the distinctions formulated over twenty years ago by Rhoden (1986) we can find:

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<sup>1</sup> The neonatology intensive care departments are indicated with the abbreviation N.I.C.U. (Neonatal Intensive Care Units).

- 2.1.1. a *statistical approach* (typical of Swedish doctors, according to Rhoden) taken by the neonatologists inclined to not begin treatment in those conditions for which statistical data of a fatal prognosis exist;
- 2.1.2. a *prognostic individualistic approach* (widespread in the United Kingdom), consisting in the propensity to suspend all treatment when faced with a deterioration of the clinical picture;
- 2.1.3. an *approach of therapeutic activism*, also defined as a *waiting approach* (favoured in the US), whereby the treatment of premature babies should always be started and continued only until virtually sure of the imminent death of the child. This is the criterion that has prevailed - until now - in most Italian neonatal intensive care units. The question should be asked whether or not Rhoden's approach is still valid and whether this is still the approach of the Italian neonatology "intensivists".

3. A brief mention of the multicentral-epidemiological surveys of the 90s and the first years of the new millennium.

- 3.1. During recent years the attention to the healthcare problems of babies born before the 25<sup>th</sup> week of gestational age, or with a very low birth weight (<1500 grams = 3lb. 4.9oz.) and particularly between 400 grams (0lb. and 14.10oz) and 999 (2lb. 3oz.) grams) has grown considerably and has given rise to both national and regional epidemiological surveys.
- 3.2. In this document and for this purpose are given the Swedish case records, without the possibility to examine them in great detail, [(FINNSTRÖM et al.1998; SERENIUS et al., 2004; GREISEN, 2004) ]; those of the United Kingdom and Ireland entitled EPICURE [( CO-STELO E. et al., 2000; WOOD et al, 2003) and the regional ones of the District of Trent (BOHIN et al., 1999; MAC FARLANE et al., 2003; HAGAN et al., 1996)]; the Norwegian national records [(MARKESTA D. et al., 2005) ]; the numerous analyses from the US [(LEMONS et al., 2001; HORBAR et al., 2002; HSIGEHARU et al., 2006; CALLAGHAN et al., 2006; AMBA-LAVANAN et al., 2006; HACK e FANAROFF, 1999; O'SMA et al., 1997; SINGH et al., 2006; etc.) ]; the Italian ones by GAGLIARDI et al, 2006; CORCHIA et al., 2003; the French survey called EPIPAGE (LARROQUE et al., 2004; the Belgian survey called EPIBEL (VANHAESEBROUCK et al., 2004); the Australian one DONGUE, 2004.
- 3.3. For the most part these case records are "centred" on the gestational age at the birth of premature infants; some concern only the < 21 → 25 week period, others include this period in broader series. Moreover, a certain number of publications take as starting point the "low birth-weight" or "very low birth-weight" at birth. It is well known that there is no absolute proportionality between the gestational age of endouterine life and weight, since the age is more directly connected to the dynamics of development (which are of greater interest for this analysis) with respect to the weight.
- 3.4. Lastly, in the years examined, considerable progress was made in physiopathology research, particularly with regard to the two critical "organs" involved in the treatment of very premature babies (for their gestational age): the brain and the lungs.

- 3.5. It must be emphasised that the most recent and interesting surveys concern not only the direct death and morbidity rates in the NICUs, or after leaving hospital, but also the “consequences” of the damage sustained later on in life during childhood, at school age and even during adolescence due to the causes leading up to such an early birth of the individual (see below).
4. The *critical situations* which appear at the time of birth can be classified into three groups:
- 4.1. those of “very low birth weight babies”, because they are born very early for their gestational weight (22-25 weeks of endouterine life) or because they are very immature due to serious effects of endouterine failure (generally genetic causes or so-called “placental insufficiency”);
  - 4.2. those of babies that are seriously traumatised by brain damage due to intrauterine anoxia during pregnancy, labour or birth (even if born at full-term pregnancy);
  - 4.3. those of babies seriously hit by morbid conditions during endouterine development (of a genetic or viral type) or with evident serious multiple malformations (usually genetically caused) which cannot be remedied through surgery.
5. In all these conditions the medical “prognosis” is clearly “uncertain” *quoad vitam* and “negative” *quoad valetudinem*, if by this is meant the full *restitutio ad integrum* of the damage sustained. For various reasons there has been a tendency, particularly in some cases, in relation to the evaluation of the cases examined, not to make use of artificial respiration “machines” or other pharmacological energy methods, as they are considered “futile” in such conditions and against what has been defined “in the child’s best interest”. Directly “active” end of life (direct euthanasia) measures have been taken in other European countries less frequently.
6. At this point the bioethical and deontological questions arising in the above mentioned situations can clearly be identified. Does the tendency to widen the policy of “not reanimating” newborn babies at risk, which is gaining ground in Holland and Great Britain, but also in the US and France and in Italy too, have to be accepted, pending explicit “legal recognition” of such a widely requested practice? Or, is it morally more correct to give all newborn babies giving signs of life resuscitation and life-support, waiting for *them to declare themselves* (as is said in jargon) and that is, the *quoad vitam* prognosis can be given with greater precision according to the clinical progress in the first hours or very first days of life? With the consequences – however – that the babies surviving the third/fourth day (the time within which most neonatal deaths take place) of life in these conditions and the long and delicate period of healthcare and hospital treatment, are human beings that anyway maintain an uncertain *quoad valetudinem* prognosis, which may – later on – turn out to show irreversible brain damage. This brings oneself to ask – considering the great importance given to the “quality of life” by today’s society – whether this is right and, furthermore, whether the giving of a fatal prognosis after the third/fourth day or a successive uncertain course of full viable recovery does not authorise the suspension of life support, above all the “artificial” one of assisted ventilation, because of the “futility” of the result that may be obtained. The futility of the result is understood not in terms of difficult survival to the moment of being discharged from hospital, but – in a long term hypothesis – as the increased risk of death and, in any case, as “the fullness of viable capacity”.

7. The doctor, above all, is faced with the dilemma of the “prevalence” to attribute to the “real” evaluation of survival or to the existential prognostic projection: what “ethical” value to offer to the *uncertainty* (the merely probabilistic evaluation of the “prognosis at a distance”), which – if negative – brings with it the justification for the “withdrawal” of treatment or – the opposite if evaluated positively – motivation for the “indefinite persistence” of therapy, with the possible accusation respectively of “failure to give assistance” or “suspension of treatment”, or of “persistent therapy”. These are questions often debated in many NICUs, the essential contents of which are briefly discussed.
- 7.1. There has been heated debate on this since the beginning of the 90s: some authors are alleged to have a tendency to excessive therapeutic intervention of modern neonatology [SIL-VERMAN (1992); KOLATA (1991); BRODY (1991); QUINDLEN (1992)]; while other neonatologists have stated, on the other hand, that the renouncing of life-saving treatment has taken place – rationally – to a very limited extent: only in the case of trisomy 21 or other evident genetic disorders or serious myelomeningocele [LANTOS (1987); TODRES et al. (1992)].
- 7.2. In the same years however the statistics of some European countries clearly showed an increase in the tendency to “not reanimate” babies with highly uncertain prognoses, before which the attempt to give life-saving treatment was judged “futile”, and also in the tendency to withdraw life-saving treatment which showed – during the first days of being admitted to the NICUs – no therapeutic improvement (“abandoning” of therapy, so as to avoid the so-called persistent therapy), moving on to palliative care. The survey EURONIC [v. CUTTINI et al., 1999, 2000, 2004, 2006] is particularly interesting with regard to the “behaviour” of the European neonatologists as it deals with the summary of the legal situation in some European countries (MC HAFFE et al, 1999) (see Tables 1 and 2).
8. Even though broadly speaking, the reconstruction of the evolution of “intensivist neonatology” over recent decades allows us to see how, even during the first years in the development of this subject, there was lively debate on the “best decisions to take”. What characterises – socially – the behaviour described is that it is taken on the basis of a “case by case” medical judgement, generally shared with the parents; at present – however – there is a pressing request by some for a “juridical regulation” of end of life practices at neonatal age, following the considerations on euthanasia concerning adults and the elderly in particular, and for a juridical definition of the “role of the parents” in healthcare decisions. The NBC considers that it is indispensable to separate the question of the treatment of very premature infants from that of the justification of euthanasia, active or passive, of babies born with malformations. Whatever the ethical evaluation with regard to the second possibility may be, (now openly debated by many bio-ethicists), there is no doubt that this must be defined as being criminally illicit under the present Italian legislation.

## **THE CARTA DI FIRENZE: BIOETHICAL EVALUATIONS**

9. At this stage it is opportune to have a more detailed look at the so-called *Carta di Firenze*<sup>2</sup>, compiled by a Group of Italian Obstetricians and Paediatricians and on

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<sup>2</sup> The *Carta di Firenze* is published in “Rivista Italiana di Medicina Legale”, XXVIII/1227-1246, 2006, with comments by G.A.Norelli.

which the NBC was asked to give its opinion. It basically refers to the epidemiological data of the EPICURE study, defining the babies born at a gestational age between 22 and 25 weeks of *uncertain viability* and classifying the treatment given to the baby in this period of its existence as *extraordinary intensive care*. Furthermore, it contains recommendations on obstetrics, including those on the modalities for assisting women in labour – besides recommendations for neonatologists that can be extremely important for unborn babies (for example, the use of prenatal corticosteroids is extremely effective after the 24<sup>th</sup> week) and information on resuscitation.

10. The fundamental guidelines of the *Carta* can be summed up as follows:

10.1. *Gestational age 22 weeks* (from 154-160 days of endouterine life). The decisions on the treatment of the mother must be based on her state of health. Caesarean section must be carried out only for clinical reasons and the mothers who request it for other reasons must be informed of the drawbacks and dissuaded from it. Newborn infants must be given comfort care except in special cases in which they show significant viable capacity.

10.2. *Gestational age 23 weeks* (161-167 days). Caesarean section is not recommended for foetal reasons. The viability of the newborn infant must be carefully assessed at birth. Resuscitation must be given, a decision to be shared with the parents should the baby show the capacity to survive. Whereas, should the infant show an extremely compromised clinical situation, it is advisable that the doctor considers whether it is appropriate or not to start or to continue the extraordinary care which would be “disproportionate” with the objective of always doing everything in the patient’s interest. Obviously, such decisions must be taken together and evaluated with the parents. These infants must be guaranteed ordinary care, that is comfort care.

10.3. *Gestational age 24 weeks* (168-174 days). Caesarean section can be considered in exceptional circumstances for foetal reasons. Intensive care of the newborn is more indicated than at 23 weeks, always however on the basis of favourable objective clinical criteria that suggest going ahead with extraordinary care, like spontaneous breathing, regular heart-beat, the normalisation of skin colour.

10.4. *Gestational age 25 weeks* (175-180 days). Caesarean section can be carried out also for foetal reasons. Newborn infants must be reanimated and undergo intensive extraordinary care, unless they show seriously compromised clinical conditions suggesting that survival is impossible.

11. As appears evident, the *Carta* only refers to the period of endouterine development, ascertained with modern prenatal auxiological criteria, without referring to the conditions leading to such a premature birth (miscarriage, pathological or accidental cause during pregnancy; presence of the over-distension of the uterus due to spontaneous “multiple pregnancy” or to pharmacological ovarian hyperstimulation, or the transfer of several embryos in the medically “assisted procreation” techniques; malformations of the womb; so-called “cervical insufficiency”; disorders of the mother-foetus symbiotic adaptation etc., but also abortion within the “time limit” foreseen by Act 194/1978 (art. 6) or correlated with paragraph III of art. 7 of the same Act ).

12. The explicit choice of the *Carta* is that of referring only to the infants born at a very low gestational age (22-25 weeks), for whom it proposes (as a code of conduct to be recommended resulting from a “*consensus conference*”) the “non-resuscitation” at 22 weeks and under this (independently of considering the presence or absence of

malformations), even though allowing for departures from this in exceptional and justified cases (indicated as the presence of spontaneous breathing movements, efficient heart-beat, recovery of skin colour). Furthermore, it considers the following 23 and 24 gestational weeks as a “grey area” characterised by “uncertain viability”. The importance of the very low survival rate of  $\leq 22$  (also recorded by the epidemiological surveys quoted above) and the substantial “risk” of results at a distance is exact; it cannot be denied however that the fact may lead to the prevailing of prejudicially “non-reanimating” behaviour.

13. A correct evaluation of the bioethical reach of the *Carta* appears to be undoubtedly complex, also due to the intricate juridical issues that it inevitably raises.

13.1. First of all it is necessary to give an answer to the question of whether or not signs and instruments exist which give us the certainty of the prognosis at the moment of birth of tiny premature infants. According to the most reliable source, neither instruments nor signs exist – at the present stage of knowledge – gestational age included (except in the cases of gestation produced by medically assisted procreation), which can give any certainty on the *quoad vitam* or *quoad valitudinem* prognosis. Mistakes can be made on the gestational age, due to the fact that the mother is not able to calculate the exact date of conception or due to the poor growth of the foetus that is in conflict with the scan evaluation, which also has a margin or error of at least one week. There are studies showing that the centres using selective resuscitation considering the gestational age do not record a lower disability rate than others. Even the most reliable prognosis indices need at least twelve hours of assessment and do not go over 85% predictability. In particular we know that tiny premature infants have very poor responsiveness at birth; above all, as is frequent, if the reason for their premature birth has caused distress, which however is never to be placed in direct relation with the prognosis: at birth unresponsive infants can have a good prognosis, just as premature infants that are viable and responsive at birth, can instead develop serious brain damage. *Therefore, the evaluation of the viable parameters at birth can have no serious prognostic value and cannot justify an a priori decision of treatment withdrawal.*

13.2. Secondly, it cannot be underestimated that even greater acute brain damage, or fourth degree cerebral haemorrhage can give rise to neurological normality in about 10-15% of cases and in the remaining infants can generate consequences of differing type, from mild to serious. Since there can be and must be doubts concerning fatal diagnoses and prognoses – of a necessarily and considerably probabilistic nature – made in the first hours of the premature infant’s life, there follows a first ethical recommendation for the immediate care in its favour, to be withdrawn only when it is certain that it is a question of persistent therapy.

13.3. Thirdly, it must be considered that the mere fact that the life of newborn infants, after the first resuscitation treatment, may continue with a handicap due to their prematurity and the brain damage that might in some cases be a consequence of this, does not demonstrate the *futility* (but at the most the *limited usefulness*) of the treatment. It is to be considered like a bioethical principle (to avoid presenting juridical evaluations in this paragraph which are dealt with later on and which are moreover coherent with what is being upheld) that treatment that prolongs the survival of a disabled person can never be defined *futile*, *due to the simple fact* that it is capable of prolonging his/her life, even if defined by some as being “of poor



quality". Furthermore, it must be noted that undoubtedly types of treatment exist that are right from the beginning, or that subsequently become particularly disproportionate and oppressive, can and must be classified as *coercive* and which, as such, can and must be withdrawn. However, the *oppressiveness of life* must never be confused with the *oppressiveness of the treatment*. While oppressive disproportionate treatment must always be avoided, in the case of the absence of ameliorative clinical advantages, it is neither ethically nor juridically licit not to start or to interrupt *non-oppressive treatment* so as to avoid the *oppressiveness of a life* with a handicap. *The modalities for the treatment of tiny premature infants cannot, in other words, be assessed with bioethical criteria that are different from those used to evaluate the types of treatment to give individuals with handicaps, whatever their age may be.*

14. Moreover, it seems that the *Carta di Firenze* does not sufficiently consider a principle of the Italian legal system and which should have a decisive value in order to clarify the terms of our issue. Here reference is made to art. 7<sup>2</sup>, of Act No. 194 of 22 May 1978 (the law on abortion) which foresees that when the possibility of autonomous life of the foetus exists, the doctor who delivers the premature birth must adopt every possible measure to save the baby's life. In other words, the possibility of the foetus's autonomous life, or the non-necessity of the mother's body for his/her life, eliminates the circumstances linked to the involvement of the body itself of the mother, which can be advanced as a condition of difference with respect to every other human being and requires the application of the principle of equality: just like every other person needing assistance, the newborn baby has the right to receive every measure necessary to guarantee his/her survival (in accordance with Act 194, at the most the inexistence of this right could be supposed when it is incompatible with the need to save the mother's life: a hypothesis, which in the present state of medical progress, is residual). The *Carta di Firenze* tends on the other hand to *invert* this principle to the twenty-second and twenty-third week, proposing as a rule non-reanimation and only as an exception the giving of life-saving treatment, except in the case of the evidence of significant viable or survival capacity (besides the need to share the decision with the parents). *This inversion does not seem ethically justifiable to the NBC.* It must be noted in fact that the *Carta* does not deduce the rules foreseen for the twenty-second and twenty-third week from the scientific or medical premise, according to which this would be a term within which life-saving therapies would *in general* be futile. Therefore the *Carta di Firenze* does not develop its ethical evaluation of the futility of the treatment from scientific certainty, but from *uncertainty*, presuming that from a medical point of view it is not possible to draw a line in general in such gestational period. In this way the uncertainty is translated at an ethical level as a reason for inverting the general rule: there is no longer the duty to give medical assistance as a general rule, except in the face of evidence of the futility of the intervention due to the inability of the newborn baby to live autonomously from the mother, but the opposite precept, according to which the life-saving assistance would not be necessary in general, except in exceptional cases in which the baby showed significant viable capacity or evidence of capacity for survival in the twenty-third week: it seems that this requirement would always have to be accompanied, according to the *Carta*, by the parents' consent. In final analysis, whenever in doubt and whenever the parents' consent is missing, no life-saving treatment should be given to very premature babies.

15. By giving such importance to the *uncertainty of viability* and using this criterion in favour of not giving life-saving treatment, it seems that the *Carta di Firenze* does not

define a scientific standard but an ethical one. The Committee does not share the idea that the uncertainty concerning viability, *given that it could – at a later date – conclude in the positive outcome of assistance*, can justify the inversion of the Hippocratic principle according to which, when faced with a birth even if premature, just as with an illness, the doctor's first objective must always be to fight to save life (never resorting to persistent therapy being the only limitation). It would have been different if the *Carta* had given a criterion of a purely medical nature, no longer based on uncertainty but on *probabilistic certainty*, thus indicating the possible futility of the treatment along general lines. The *Carta* only does this with reference to the period prior to the twenty-second week.

16. It follows that in the Committee's opinion the uncertainty that denotes the time between the twenty-second and twenty-third week cannot make one assume the futility of the treatment so categorically. Therefore, from an ethical point of view, it is not sufficient to establish in general the irrecoverableness of the duty to adopt every suitable measure to protect the life of newborn babies. *The doctor can decide whether or not to carry out this duty, but only by diagnosing the insufficient viability of newborns, also according to empirical-probabilistic parameters.* The Committee stresses how, once this ethical principle has been established, the judgement on the futility of the treatment is exclusively the responsibility of the doctor, who must work it through in science and conscience in accordance with the norms of a professional opinion.

## **THE INVOLVEMENT OF THE PARENTS IN ORDINARY, EXTRAORDINARY AND EXPERIMENTAL RESUSCITATION DECISIONS**

17. The NBC stresses the doctor's bioethical and deontological duty to always inform the parents of the baby's state of health in detail and the parents' right to receive complete, comprehensible and correct information (even though aware that very changeable situations - which is quite frequent - can hinder the giving of exact information). Widespread experience, and this is confirmed by most neonatologists in Italy too, shows that a good, constant empathic *communication with the parents* makes the conflict between doctors and family extremely rare. The question however is whether it is justifiable to attribute value, that is ethically and above all *juridically* binding to the parents' opinion with regard to decisions on the suspension of treatment or the renunciation of the reanimation of premature babies. The NBC stresses that it is obviously not a question of judging parents who find themselves in such dramatic situations in a moralistically abstract way, and who always deserve respect whatever decision they take, but of drawing up bioethically consistent indications for the doctors who have to take urgent and important decisions for the survival of premature infants. At the same time it must be remembered that parental authority is considered as a duty (or a function) and not as a subjective right: it is therefore a power justified both ethically and juridically on the basis of the exclusive interest of the child and which therefore can only be measured with reference to and in terms of such interest
- 17.1. Special attention must be paid to the problematic nature of the binding involvement of the parents in the difficult choices over the suspension of treatment of the pre-term baby: on the one hand, their involvement would seem essential if it is supposed that, except for rare cases, the safeguard of the best interests for the newborn baby is the parents' responsibility, just as the continuation of the "care", not only medical, of its life is also theirs; on the other hand, it cannot be denied that by recognising a binding power in the parents' will, there is a risk of humiliating the

doctors' epistemological and deontological autonomy, obliging them to be subject to strong pressures at a human level (but – except in special cases – not scientifically thought through). Owing to the emotional involvement of the parents, there is also the risk of introducing into the overall decision-making process evaluation parameters that are unrelated to the decisive bioethical issue, which should be based exclusively on the probability of autonomous life of premature infants and therefore on the appropriateness of offering them life-saving treatment. The Committee considers that the fundamental bioethical criterion that must guide every decision on this matter has to be the safeguard of the newborn baby's life, which cannot be jeopardised merely because of its premature birth (as long as this safeguard does not involve futile treatment or persistent therapy).

17.1.1. It is possible to reach the same conclusions also by means of another type of reasoning. Act 194/1978 sets down, as is known and as was mentioned here above, that in the hypothesis of late miscarriages the doctor proceeds with the necessary treatment to save the life of the foetus, should it have reached a stage of gestational development that permits autonomous life outside the womb. It would be rather singular that when carrying out an abortion, while respecting the will of a woman who wants to terminate a pregnancy and who is willing to terminate the life of the foetus, the doctor were anyway obliged to safeguard the life of the latter, whereas in the case of the birth (not induced by an abortion) of a premature infant such duty is not considered legally binding and the medical assistance is left to the parents' decision. It is clear in fact that the doctor's duty concerning abortion is foreseen by the law for the very purpose of *ruling out* – should the foetus show any viability – that the will of the person that has decided to terminate the pregnancy can obtain a recognition and produce effects *also* like a will directed at the suppression of foetal life. Therefore the doctor's duty *a fortiori* to act to save life must also be valid in the cases in which he is not called upon to deliver a miscarriage, but to treat a premature infant.

17.1.2. The above considerations also apply in the case in which the parents should ask for useless and inappropriate prolongation of medical treatment, in obvious contradiction with the objectivity of the case history: it is indispensable to safeguard the dying newborn infant from useless persistent therapy, even if demanded as a result of the anxiety and affection of the parents.

17.2. The particular hardship must be neither neglected nor made light of in which the decision-making process takes place when any decision has to be taken concerning the treatment of tiny premature babies. Faced with the immediacy and urgency of medical care a difficult psychological condition emerges in all the subjects involved in the decision, whether they be the parents, the doctors and all the other healthcare workers. It must be added that any decision by the parents should be based on the real understanding of adequate and correct information. This is quite difficult, both because the circumstances of a premature birth usually require quick decisions and leave little space for a thorough explanation of the situation, and because not always do the doctors have clear ideas about the prognosis – in the circumstances characterising the birth of premature babies and which do not allow in-depth analyses or useful consultancy. All these considerations cannot however and must not relieve the doctors of giving all necessary information to the parents so that they can participate in the decision-making process in full awareness. It is clear that suitable preventive information

must be increased on the risks of the therapy, pain treatment, and on the uncertainties of the prognosis. With exception to the doctor's exclusive decision-making responsibility in the case of urgent treatment that cannot be deferred to safeguard the prospects of life and health of the baby, all decisions should be shared with the parents.

18. The above considerations could be debated, in the case that an *always extraordinary-intensive* (or, to use another term, *disproportionate*) nature were recognised in the practice (or at least in *some* practices) of neonatal resuscitation for a gestational age of less than 25 weeks. Various scientific papers show a possibility of survival for premature infants that varies from 10-15% of cases at 22 weeks to 50% at 24 weeks. *As it is a question of survival*, it does not seem that these percentages are so low as to be considered *irrelevant*.

18.1. If it were agreed that to *resuscitate* newborn babies born at a very low gestational age is *always* to be considered an *extraordinary* practice, it would then be possible to reasonably define resuscitation as undue persistent therapy. In reality however it is not a case of "resuscitating" many of these newborns as they are responsive and tonic; the only treatment is often just the giving of oxygen (just ordinary air is often sufficient) by means of a cannula put into the trachea through the nose. It is frequently the case that not even drugs or cardiac massage are necessary. The possibility to use electrical cardioversion on the newborn in the delivery room does not exist. Therefore, one cannot speak, except in a few isolated cases, of *resuscitation* in the true sense of the word and also in these cases the term is debatable as the subjects are not dying, but are simply – some of them – in a state of respiratory or cardiac depression. It is therefore up to the doctor and his professional experience and conscience, to define the resuscitation of the premature newborn as *extraordinary*, according to each single case and with due reasoning. It must be pointed out however that the *extraordinary* nature of a practice (especially if life-saving) is not sufficient to define it as *disproportionate* and consequently it is not sufficient to justify the failure to start it, in so much as being a form of persistent therapy.

19. Another aspect to be taken into consideration and which is of a particularly delicate nature, is the objectively *experimental* nature that very often – but according to some *always* (PIGNOTTI, 2007)- neonatal resuscitation takes on in this field.

19.1. Knowledge is still very limited in this sector. For this reason not only is it impossible to carry out a certain diagnosis at the moment of birth, but it is not even possible to trace a clear demarcation line between the instruments of *ordinary and extraordinary* treatment. The demarcation line is however, in principle, essential also to avoid the further corroboration of mistaken evaluations in public opinion, leading to the definition of *experimental* treatment like intubation as extremely invasive, but certainly not experimental. It must furthermore be remembered that from many points of view it has been the ability of medicine itself to go beyond what appeared to be the natural ordinary limits of survival, to make the treatment of smaller and smaller newborns possible. From other points of view, this continuous extension of the prospects of experimentation runs the risk of becoming a means to itself and going against the objective interests of the premature infant. The *Carta di Firenze* does not explicitly dwell on the problems of neonatal experimentation, but hints at this concern when it draws the reader's attention to the problems arising

when “intensive extraordinary treatment” is carried out on newborns in conditions of “uncertain viability”. This cause of concern is completely justified but it can only find the right solution in the decision that, case by case, doctors and parents take – once in agreement upon the experimental therapy to be carried out – in finding a balance between the prospects of survival and the particular therapeutic needs. Generally speaking the ethical nature of objectively experimental treatment carried out on extremely premature newborns finds confirmation only on two conditions:

- 19.1.1. that such therapy is in line of principle evaluated and begun with the primary aim of maximising the wellbeing of the little patients;
- 19.1.2. that the parents’ consent is considered *binding*, since the aim of the treatment in these cases goes beyond the exclusive good of the newborn to assume as objective, besides that of the medical care, also that of the progress in medical knowledge. When therapies are experimental they are never necessary and always require the patient’s informed consent. In neonatology (just as more generally in paediatrics) the doctor must ask for and obtain an authorisation from the parents to intervene on the newborn baby in order to make an attempt which, even though aimed at saving the life of the baby, has primarily aims of general interest. The parents’ informed consent therefore is not needed for the withdrawal of the minor from therapies which, if necessary, should be given in any case; it only works in one direction, that of authorising them.

## SYNTHESIS AND RECOMMENDATIONS

20. The Committee is well aware of how birth evokes complex and controversial issues in the bioethical debate: the “wonder” excited by birth (a subject dear to Hannah Arendt), its transformation into a question on the sense of life, at the moment in which the possibilities of suffering for the newborn become express, the responsibility that the existence of a newborn baby excites in itself (as Hans Jonas has taught us) are themes that are all, so as to say, amplified in the debate on the preterm baby, where the “vulnerability” characterising every newborn is tragically evident and the present or future suffering overshadows the joy of birth. It seems certain however that progress in neonatal and perinatal medicine has significantly increased the possibility of survival in very low birth-weight newborns, leading scientists to reformulate the traditional neonatal evaluations with regard to the viability threshold of extremely premature infants and giving the parents new and not unfounded hopes. On the horizon of these premises and limiting itself primarily (even though not exclusively) to the issues raised by the *Carta di Firenze*, as well as on the basis of a careful evaluation of further information acquired on the subject, the Committee retains that it can express the following positions:
21. The fundamental bioethical principle that must guide the reflection on the subject of extremely premature infants is the following: the criteria that *in general* must be adopted for the resuscitation of newborn babies cannot differ from those adopted to resuscitate a baby that is no longer in the neonatal phase or an adult. This principle corresponds, moreover, to the guidelines expressed quite clearly (and which to date remain unmodified) by the *American Academy of Paediatrics* (KATTWINKEL, 2000).
22. The *Carta di Firenze* has the merit of having drawn the attention of public opinion and the public administration to the problems of neonatology. It also has the merit of insisting on the importance of palliative care for extremely premature infants, on their

right to have proper analgesic treatment and to a dignified death. There is also the praiseworthy indication in the *Carta* relative to the importance of preparing, where possible, the parents for the birth so as to be able to set out the treatment that it will be possible to offer mother and child by means of a serene and open dialogue.

23. The Committee considers that an extremely premature baby must not be resuscitated when this practice takes on the nature of persistent therapy, even if the lengthening of medical treatment were to be insistently requested as a result of the anxiety and affection of the parents. It furthermore considers, however, that the mere fact that a premature infant undergoes intensive care at the moment of birth cannot be defined as *persistent therapy*. In any case *the claim to identify a time threshold from which to refuse, a priori, any attempt of resuscitation seems ethically unacceptable, and scientifically debatable*. In outlining the best treatment for premature infants according to their gestational age, the *Carta di Firenze* wisely does not identify thresholds or terms in an absolutely *peremptory* way.
24. It is the Committee's opinion that the mere hypothesis of a disability, even serious, but compatible with life, destined to hit the premature baby cannot justify the withdrawal of treatment, except in the cases, mentioned above, in which the doctor according to his professional consideration and his conscience, considers it to be persistent therapy, by virtue of its futility or its inappropriateness.
25. It is also the Committee's opinion that the parents must always be *involved directly* in the decision making with regard to the treatment begun on their premature babies and that the parents, should experimental treatment be carried out on the infant, are called upon to give a *binding assent*. Besides this hypothesis and that of persistent therapy (which must always be considered not only unnecessary but ethically unjustifiable), in the rare and extreme cases in which the parents' opinion is not compatible with the doctor's evaluation in favour of the resuscitation of the baby, it is the NBC's opinion that the doctor's opinion must prevail. It must in fact be considered that the hypothesis has neither deontological nor ethical nor juridical substance according to which *every* form of treatment and resuscitation of premature infants must be carried out by the doctors, *only* following a positive opinion of the mother and father.
26. The above considerations lead the Committee to underline the fact that by birth every newborn infant, even if extremely premature, acquires the *juridical* statute of *person* and stresses that the legal responsibility of the right to treatment is recognised to everyone in the Italian Constitution, regardless of age, sex, race, political and religious opinions and of any other personal and social condition (art. 3 Const.). The discrimination that would arise among equal subjects would not be acceptable therefore, if, conditions being equal, a premature infant were given medical treatment following the doctor's mere potestative decision or because the parents gave their consent, while another one were abandoned as a result of the doctor's adverse potestative decision or because the parents did not give their consent.
27. The Committee recommends that the support for parents from a psychological, ethical and spiritual standpoint be increased in the neonatology intensive units of the national healthcare system, in particular in the obviously dramatic circumstances in which decisions have to be taken with regard to extremely premature infants. Such specialised support must continue at a psychological level as well as at a socio-healthcare one, also following discharge from hospital.

28. The Committee, informed of the increasing possibility of survival of infants under 24 weeks of gestation of very low birth weight, and that the evolution of scientific knowledge makes pregnancy possible even in biological situations that by their very nature can make prematurity more frequent, expresses the need for national and regional healthcare intervention to boost scientific research on the causes of prematurity and its prevention by means of adequate financing.
29. Lastly the Committee points out how the now ascertained, even though statistically limited, possibility of survival of infants that have reached the twenty-second week of gestation calls for a rethinking with regard to the commonly used methods of treatment for late miscarriage, which in accordance with Act 194/1978 must always be carried out in the respect of the conditions expressly indicated by the act itself, so as to safeguard the possibility of survival of the foetus outside the womb.

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## Declaration of vote

The here undersigned members of the NBC express a negative vote on the document “Extremely premature infants”, stating grounds for the vote by referring to the numerous criticisms put forward by some of the signatories during previous discussions (some of which are included in the final version of the document, but with only formal modifications) and which are summarised here below.

### 1) The first point of disagreement concerns the interpretation of the *Carta*.

According to the signatories the document does not take into consideration the framework of the main themes proposed by the *Carta*, which is not – as on the other hand the document states right from the beginning – the decision “*to suspend life-saving treatment and the resuscitation of babies born at a very low gestational age or affected by seriously invalidating pathologies*”. In effect the *Carta* never mentions invalidating pathologies as a reason for denying or withdrawing treatment and is concerned instead with how to guarantee the mother and child adequate medical care, avoiding however “*useless, distressful and ineffective treatment*”, also in consideration of the high mortality rate in the short to medium period following birth. The *Carta*, that is, has the merit of not turning a blind eye to the ambivalence of technology, which can bring great benefit to some but often at the cost of enormous suffering to others. For this reason, the identification of the criteria of appropriateness of treatment takes on bioethical importance. The ethical tension of the *Carta* lies therefore in attempting to identify valid criteria for medical care in the age groups in which there is no evidence of the greater efficacy of oppressive invasive resuscitation therapies, and with high iatrogenic risks, with respect to non-invasive minimum treatment.

This ethical implication of the most appropriate choice with regard to the use or not of highly invasive technologies on premature infants is, fundamentally, sidestepped by the document, which does not consider the doubts and uncertainties arising from the ambivalence of the techniques and condemns the search for criteria of suitable treatment a priori (without spilling over into “*useless and distressful*” treatment), which instead constitutes the ethical substance of the *Carta*: thus, for example, the document considers the proposal (of the *Carta*) to not subject newborns of 22 and 23 weeks to intensive therapy “*not ethically justifiable*”, except in cases showing “*significant viable capacity*”, since it interprets this recommendation as the institution “of withdrawal of treatment” as a rule and of treatment as an exception. In reality there is no point in the *Carta di Firenze* from which it can be inferred (- as on the other hand the document maintains -) that it is oriented towards an “*a priori decision for the withdrawal of treatment*” or which establishes “*the futility of the treatment categorically*”. On the contrary, even at the end of the premise, the *Carta di Firenze* calls the attention to the fact that the behaviour protocols and the guidelines drawn up by various national and international scientific organisations must be understood as suggestions and certainly not as an imposition of uniform and standardized behaviour, and concludes that “*every decision must be personalized on the basis of the clinical conditions of the newborn at birth, on local mortality data, with the parents being consulted and suitably informed of the event that they are living*”. And again, a little further on: “*It must therefore be clear that any type of therapy, whether the starting of resuscitation and intensive care or its limitation, can be reviewed and suited to each single case, once the clinical conditions of the newborn at birth have been evaluated*”. Where therefore is the “a priori” “rigid” attitude ascribed to the *Carta* by the document? In the *Carta*, on the other hand, there is the will to not sidestep the complex and delicate problems of a reflection on the oppressiveness of certain technological interventions, which results as the subject of

debate in the scientific world: and it is even paradoxical that, after having put together the document on the basis of the accusation of apriorism and rigidity, at the end (but only at the end: see § 23) it is recognised that “*in outlining the best treatment for premature infants according to their gestational age, wisely the Carta di Firenze does not identify thresholds or terms in an absolutely peremptory way.*”

2) The second point of disagreement concerns the role of the woman and the parents in the decision making. The *Carta* strongly and frequently stresses not only the importance of the participation of the parents (and in particular the woman, in the pre-birth phase) in the decision making process, but also the need to hold their opinion “*in the greatest consideration*” and to share any decisions concerning treatment with them: however, it never reaches the point of declaring the parents’ opinion binding, presenting itself therefore as an attempt to find a point of convergence between different standpoints existing in Italian neonatology. Instead the document, even though welcoming the thesis of the appropriateness of the parents’ involvement, ascribes to the *Carta di Firenze* the thesis of the binding nature of the parents’ opinion, of which in fact there is no evidence; and, moreover, on the basis of this incorrect attribution, it surrounds the desirable participation of the parents with so many precautions as to practically thwart its relevance. The document in fact emphasises the problematic nature of such “*binding involvement*” which, by reason of the particular emotional situation of the parents, would introduce “*parameters of evaluation extraneous to the decisive bioethical question*”, ending by confirming that in the case of dissent between parents and doctor (even though rare, it is to be hoped) it must be “*the doctor’s opinion that prevails*” (§ 25). It does not seem to the signatories that this affirmation can be shared, also by reason of the “*fundamental bioethical principle*” from which it stems, formulated in § 21: “*The criteria that in general must be adopted for the resuscitation of newborns cannot differ from those adopted to resuscitate an infant that is no longer in the neonatal phase or an adult*”. This indication seems to draw inspiration from the respect of an elementary principle of logical coherence in moral evaluations which sounds like: for analogous situations under morally important aspects, analogous evaluations. But, to be precise, the situations of the adult, the child and the premature infant are not assimilable under the morally important aspects, except before a bioethics that wants to ignore the differences in order to be able to subsume the specificity of the cases under general principles to always be applied and anyway, almost as if the only thing that counts is “*to save principles*”: with the final consequence, but not an irrelevant one, that from the joint reading of the texts of § 21 e 25 there stems a total restoration of medical paternalism extended to all phases of life.

However the signatories also intend to state that in the cases – which the document considers rare and extreme too – of dissent between parents and doctors, the prevalence must be ascribed to the parents’ will. Since, in fact, in these cases the dissent probably arises from different evaluations not so much concerning survival as the oppressiveness of the treatment needed to maintain it and the medium and long term consequences resulting from such treatment. It is not clear for what reasons the doctor’s judgement must prevail over that of the parents.

3) A last point of dissent is the following. It was mentioned above that the document insists on ascribing the thesis of the binding value of the parents’ consent to the *Carta di Firenze*, of which instead there is literally no mention at all. It must therefore be considered that the insistence of this mistaken assignation is aimed uniquely at introducing, in several points, the reference to art. 7 of Act 194/1978, mentioned for the purpose of supporting the thesis according to which “*It would be rather singular that when carrying out an abortion, while*

*respecting the will of a woman who wants to terminate a pregnancy and who is willing to terminate the life of the foetus, the doctor were anyway obliged to safeguard the life of the latter, whereas in the case of the birth (not induced by an abortion) of a premature infant such duty is not considered legally binding and the medical assistance is left to the parents' decision.” (§ 17.1.1)* It is evident how the importance of this “singularity” would have no sense at all if the thesis of the binding value of the parents' decision were not ascribed to the *Carta di Firenze*; and, as a consequence neither the repeated (and increased, with respect to the previous versions) references to art. 7 of Act No. 194 would have any sense.

These repeated references to art. 7 of Act 194 and the interpretation of this article given in the document would lay themselves open to a number of observations (a part of these have been highlighted above by some of the signatories), which however it is not necessary to mention at this stage: the purely instrumental and ideological nature of the reference to the law on abortion seems in fact evident, and this becomes almost the main theme of the document. It is not by chance that the last of the recommendations (§ 29) is dedicated to the hope for – in obvious agreement with recently expressed positions on the subject in the political debate – “*a serious rethinking of the commonly used modalities for the treatment of late miscarriages*”, justified by “*the statistically limited possibility of survival in newborns reaching the twenty-second week of gestation*”. Even though not relevant for the issue being examined, the signatories would like to stress that they do not see the need for such a deep rethinking: in fact art. 7 of Act 194 (in which – it must be remembered – the clause on the possibility of the autonomous life of the foetus is introduced to be limited only to the case of “serious danger for the mother's life”, art. 6 para. a, the already limited number of late miscarriages) does not indicate any time limit and is therefore susceptible to being applied according to the evolution of scientific knowledge in the field of neonatology. The signatories are without doubt willing to participate in a debate on the problem of the correct and *integral* application of Act 194, but stress that the choice of introducing such a subject in this document, in such an instrumental way, seems unacceptable, also since this has certainly not fostered the search for a common ground for discussion on the specific subject.

Signed:

Carlo Flamigni

Claudia Mancina

Demetrio Neri

Monica Toraldo di Francia

Grazia Zuffa

Professors Silvio Garattini and Alberto Piazza, even though not present at the voting, were in favour of the contents of the above mentioned declaration of vote.



## **Comments signed by Dr. Laura Guidoni**

Reasons for voting against the NBC's document on extremely premature infants.

Even though recognising that the document deals with an extremely complex subject in great depth, and attempts to give a support to choices of treatment in very difficult moments, I consider that some parts of the document itself are in conflict with my convictions, a position that I shall try to explain in the perspective that some readers of the document may identify with these misgivings and can acknowledge the other messages positively.

The central theme of the document concerns situations characterised by enormous emotional complexity, above all if we consider the actors, who are in first place the mother and child. Premature birth can take place spontaneously or out of need, due to serious danger for the mother's health that would lead to the death of the mother and child. In both cases, except for a bad interpretation of the law, these are pregnancies that are accepted and then terminated, even though with different modalities. I think that this aspect should have been made clearer in the document, leaving no space for ambiguities with reference to Act 194, so as to avoid creating confusion between situations in which the newborn baby is desired and loved and situations in which the mother refuses the child a priori, guaranteeing a clearer approach to the issues of consent.

The strong relationship existing between the newborn baby and the mother, and more generally with the parents, can be imagined at a moment in which life, above all if destined to being short, is marked by great suffering and need for affection. In my opinion, this affection can be shown even despite the poor physical contact and I think that better ways of contact between mother and child should be used, if not physical, at least by listening to her voice, or heartbeat or anything else. I believe that fighting together for life can give greater chances and that, however, having another person close by before death is less distressing. From these considerations comes my conviction that the mother or parents cannot be denied the possibility to allow or not allow an attempt to save this little life, when we are speaking about fetuses being born before the 25<sup>th</sup> week, that is in situations in which neonatologists and experts, with medical knowledge as it stands today, do not give prescriptive indications and administer treatment case by case since there are no standard protocols. Nonetheless, considering the extreme difficulty of the choice, the parents should also be allowed not to express an opinion if this is what they desire, leaving the responsibility to the doctors. This stance differs both from what is foreseen by the document which anyway leaves the final choice to the doctor, and from the stance used when consent is foreseen, which is usually obligatory and places the responsibility for the choice on the patient or whoever represents them.