

Opinion n° 88

Age determination methods for legal purposes

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On November 25, 2004, Madame Claire Brisset, *Défenseure des enfants* (Ombudsman for Children), referred to CCNE on the issue raised by the use of radiology and examination of pubertal status in order to arrive at a legal evaluation of the age of a child or adolescent. The three questions put to CCNE relate to "the medical ethicality of medical certificates unless necessary methodological precautions are taken when a technique unsuited to the reality of the population concerned is used", "the possibility of stating a precise age rather than a probable age bracket" and "the suitability of performing repeated radiological examinations which are of no particular benefit to the person concerned".

This evaluation has become necessary because the law defines various statuses for minors (under 10, 13, 15, 18) drawing legal consequences which differ with age. Determining the age of foreign children or adolescents may be essential in order to define the rights and protection afforded them by law depending on this status, and the conditions in which they may or may not be detained or held in police custody if they are under suspicion.

Often the problem must be addressed urgently when people are taken in for questioning or held in airport transit areas and the children and adolescents concerned cannot show the authorities any reliable identity documents nor provide even a summary medical file to doctors required to examine them.

The most frequently used method for assessing age is in such cases based on an X-ray of the left hand and wrist for comparison with standards in a table of plates of an American "Caucasian" population, described in the 1930s and 1940s in the Greulich-Pyle atlas, or of a British middle class population of the 1950s according to the Tanner-Whitehouse method. To summarise, the X-ray analyses the existence and dimensions of a point of ossification (thumb sesamoid bone) and signs of epiphyseal maturity of the phalanges. The information in the atlas is statistical, not individual. Originally, the X-rays were not intended for any legal purpose. They served a purely medical function to assess the risks of growth inhibiting medication (for example in the course of hormonal treatment) before prescribing. The use made of it, which transforms relative and collective data for medical purposes into singular evidence for legal ends is obviously very worrying.

Moreover such references generate a major risk of error as regards non Caucasian children from Africa or Asia, whose skeletal maturity may be totally at variance with the Anglo-Saxon references mentioned above or who may have been profoundly affected by deficiencies or pathologies which did not exist in the reference populations of over fifty years ago. Even in a so-called Caucasian population, skeletal development varies considerably. In the last half century, signs of skeletal maturity have changed because of various factors, in particular nutritional ones.

Because of this imprecision, other assessment methods have been in use for quite some time:

- dental panoramic radiography used to evaluate dental maturity. Normally such X-rays are used only before orthodontic treatment so as to determine whether a procedure is - or is not - an option in the light of dental development.

- Clinical examination of signs of puberty.

However, neither of the above radiological or clinical examinations is free of the drawbacks previously mentioned. Not only do dental development and signs of puberty differ considerably from one person to another, but major modifications as regards age of onset due to various environmental factors make it ever more difficult to produce individually applicable interpretations and real chronological age.

To sum up, determining the age of a child or adolescent, in the present state of scientific and technical progress, is still a procedure fraught with imprecision. Adolescents may be declared older or younger than they really are based on clinical examination of puberty. Uncertainty is greatest between 15 and 20, i.e. precisely the age group for which most of the examinations are required.

Be they taken in isolation or combined, at this time the above methods do not provide the precise scientific data that the implementation of legal texts requires. In the circumstances, it comes as no surprise that the Committee on the Rights of the Child of the Office of the United Nations High Commissioner for Human Rights recommended in June 2004 that France should adopt other methods to determine the age of foreign minors. The problem is that there are no other methods. In the circumstances, there is an essential need for research to discover whether establishing criteria based on physiological and biological indications, as well as psychological factors, so as to arrive at a really accurate evaluation, is a realistic possibility.

Ethical considerations

1 - Is it acceptable to rely on scientific criteria developed for purely medical purposes, totally unrelated to chronological age, to determine legally minor status when no reliable social identification data is available? The fact that consequences are serious, one way or the other, be they of benefit to the person or the contrary, is an uneasy companion to the imprecision of the criteria. The medical profession uses these criteria to assess biological age in a context where only "biological" age matters, and not at all to determine chronological age. This discrepancy between real age and biological age is, as mentioned above, increased by over half a century of morphological changes which have evolved differently in different countries.

To this first ethical question concerning indiscriminating use of scientific parameters for legal purposes, the only possible answer is negative. The parameters contain a degree of imprecision which is either ill-assessed or poorly re-assessed. The degree of uncertainty does not signify that expert examination must be rejected as such, insofar as the law requires it, but it does entail its use in conditions and according to principles which, from the outset, confer a degree of relativity to conclusions.

2 - The status of medical experts. They are divided between two finalities, or rather two statuses. On the one hand a medical status so that in some cases a very specific answer can be given regarding the advisability or otherwise of a therapeutic procedure, and on the other hand, that of legal expert involving an extremely imprecise answer expressing a considerable margin of uncertainty. The discrepancy between the medical data, which is always relatively easy to interpret, and the determination of age for legal purposes is considerable. How can a medical expert give any response which is not for purely medical ends? How can a judge then use an expert's report which has been

diverted from its initial scientific purpose? What should be the judge's attitude in the absence of certainty? What can a judge do with information that the medical profession says has no possible significance in legal terms? In this situation where the medical expert report does not apply to the actual situation, the judge's responsibility is unaided since medical arguments cannot provide sufficiently safe support for legal decision. If it is accepted that within the scope of scientific action, "any action that is unscientific is unethical", the profoundly ambiguous nature of this form of expert analysis and of the status of the medical "expert" is alarming.

3 - The relationship between the expert and the subject. The health risk connected to radiological irradiation, unless it concerns a diagnosis or has a therapeutic indication, should not be increased. Such examinations are not meant to be performed repeatedly. Furthermore, submission to radiological investigation and clinical examination (generally performed without prior consent) may appear as a degree of violence and may wound the dignity of adolescent children subjected to such medical scrutiny without explanation in an environment which suggests police investigation rather than a hospital. Apart from the ethical problems raised by the scientific validity of the method of assessment, a major ethical issue is also the circumstances in which such examinations are performed. It is very important to make sure that such conditions are minimally traumatic for children who have in some cases already experienced distressing personal or family events and may be further and needlessly upset unless they are adequately informed.

The circumstances are not always urgent and it is essential that everything be done to try and explain the reasons why such examinations are required. Asking for the help of a third party who speaks the child's language seems to be essential to attenuate the violence of a situation (violation of privacy) or maybe obtain information from the child which could turn out to be very useful. Time enough should be set aside so that the possible minor may engage in a trustful relationship with the expert, in a spirit of open mindedness and dialogue, and understand not just the reasons why the examination was requested, but also that results are ambiguous.

4 - At present, these medical examinations are performed without prior consent being given by the person concerned or by a guardian or responsible person. If they are prescribed and performed, it must be with due respect for a person who claims to be a minor. In view of the uncertainty linked to the techniques in use at present, their results must never entail a presumption of adulthood. On the contrary, CCNE insists that the inherent doubts attached to the procedure should be interpreted in favour of those who claim to be minors.

Should such examinations, the results of which are so unreliable, be performed forcibly? Although it is understandable that some biological and medical support for the appreciation of an ambiguous situation might well be wanted (since it is well known that numbers of children may be used by adults for criminal purposes), the discernment of justice cannot take refuge behind medical expertise of such demonstrable imprecision. Judges must be able to make allowances for the frequent discrepancy between biological (or physiological or chronological) age and the legal age. More attention should be devoted to behaviour rather than to an assimilation of factual age to physical characteristics. Simply knowing a legal age is not sufficient to judge the degree of autonomy and responsibility of a person.

In any event, since it is scientifically impossible to establish a precise physiological age, the only ethically acceptable concept would be a "broad spectrum" supplied by the medical profession, whilst making sure that judges do not systematically choose a median value which would in fact lead to falsely precise results. When in doubt, judges should select only what is most favourable to the child or adolescent concerned.

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Conclusion

The National Consultative Ethics Committee is fully aware of the importance of the issue and in particular of the fact that the status of minor is a protected one and that the protection it carries could encourage delinquency or criminality committed by children or adolescents who are being used by adults. However, the difficulty of determining the actual age should not lead to losing the protection attached to the condition of being a minor. The law cannot use medical considerations as a shield and it must resolutely shoulder the responsibility of respecting above all the dignity of people suspected of violation of the law, in particular at a time in the life of a person where the only boundaries are those established by a birth date.

This temptation to have the law delegate to medicine the responsibility of choosing a biological age as a substitute for real age has the further consequence of obscuring the conditions in which a child or adolescent has been detained for questioning. The main consideration should not be so much age as the more or less dramatic social conditions which led to the situation. The objective is not to release or detain depending on what age is decreed, but to see what assistance can be given to children or adolescents who are in the thrall, knowingly or not, of ill-intentioned adults. The danger lies in that radiographical parameters and an examination of signs of puberty are used to solve in a simplistic manner a situation which is complex by nature. The object is protection rather than detection. In this respect, the medical profession, must not disregard its responsibilities, and should always remember that its primary mission is care, not expertise.

It is particularly alarming, at a time when "evidence based" medicine is developing, to see examinations being practised for legal purposes whereas their significance and validity in relation to the very object of the request for expertise, has not been evaluated for over 50 years. Is it likely that research can help to discover more reliable methods? Probably not. Human diversity is such, in time and space, that it seems futile to believe that it may be possible in the foreseeable future to determine the exact chronological age of a person at any given time, unless their date of birth is known.

The age of an adolescent is never simply an image, a measurement or the expression of pubertal development of some kind. It would probably be easier to define a minor status in terms of a network of psychological, social and cultural data, so that if there must be an expert examination, it could be collective and pluridisciplinary. The medical profession should not elude such responsibility, but act with the greatest possible discernment while taking into account the complexity of the situation. It is precisely that complexity which makes it ever more difficult, in the absence of identifying data, to

set a purely legal age. The difficulty resides in the fact that the law must respect fundamental rights and that a value expressed by age is a very fragile criterion to exercise such rights.

A final consideration is that it seems difficult to imagine in this era of intense migration that the same criteria would not apply throughout Europe. A number of European countries are also confronted with this difficult situation, so that it seems obvious that any solution must be on a European scale with a harmonisation of criteria. Such harmonisation, because it involves the protection of human rights, has important ethical implications.

To respond to the questions put to the Committee, CCNE confirms that the medical techniques actually in use to set a chronological age are not adequate.

The Committee does not necessarily object to their use, but suggests that a relative value should be attributed to their results so that the minor status is not exclusively dependent on them. The difficulty is not so much in the possibility of the examinations representing a danger, which seems unfounded, but more their implementation in a climate which appears inquisitorial and lacking in the psychosocial components which are always necessary in such a context. The important point is to protect children, not discriminate against them, which reinforces the counselling role of the medical profession, even when they are required to act as experts.

June 23, 2005

Annex to Opinion n° 88
on Age determination methods for legal purposes
Contribution by a member of the Committee

This contribution concerns the section on ethical considerations.

Paragraph 2: The second sentence of this paragraph could be drafted as follows: "The first of these, the status of physician from whom a quantified response including a margin of error can be expected, with the object of allowing, or disallowing, a therapeutic intervention; and a second, that of a sociologist, whose more qualitative response must take account of other aspects of the person under examination".

Paragraph 3 : The following draft could entirely replace the existing paragraph.
"Clinical and/or radiological examinations performed for diagnostic and/or therapeutic purposes linked to a medical condition, do not raise ethical issues as regards their indication nor as regards the dose of radiation received by the patient, when they are performed in accordance with good practices.
However, clinical and/or radiological examinations ordered with the aim of deciding on whether a person is or is not a minor, for legal reasons, raises the fundamental issue of their legitimacy. The question of the radiation dose is not pertinent since for the determination of "bone maturity" it does not differ significantly from natural background radiation. However, the radiological examination itself and more so the clinical examination which, in the circumstances will include examination of external genitalia, may be experienced as intrusive. This could also be the case in the event of biological investigation requiring blood sampling. If ethically the conclusion is drawn that they are essential to the medical expert's report that the judge must have in order to take a decision, then they must be preceded by the fullest possible information imparted to the persons concerned through, if necessary, a third party using their own language, and in circumstances which protect to a maximum degree their physical and moral integrity, in other words, their dignity."

Paragraph 4 : another possible form of words could be:

"Can intrusive examinations for the purpose of providing medical expert opinion be practised when their results display excessive variance in the context of what is at stake? Although it is comprehensible that judges may wish to base their determination of the chronological age of a person compared to the legal age of majority, on biometric data, the duty of a physician designated as an expert witness is to explain that scientific data in this respect is deficient, so that judges understand that other considerations must preside over their decisions. In particular, more weight should be given to behaviour as compared to chronological age. This point of view is reinforced by the fact that the protection to which a minor has a legal right may apply, in different forms, to adults whose capacity of discernment is impaired. In other words, simply knowing the legal age at a time approaching coming of age should not be sufficient to judge per se the degree of autonomy of action or responsibility of a person in legal terms".