

## **When is a human being considered to be dead?**

Maria Luisa Di Pietro

Section of Hygiene, University Department of Life Sciences and Public Health, Università Cattolica del Sacro Cuore, Roma, Italia.

Correspondence: [marialuisa.dipietro@unicatt.it](mailto:marialuisa.dipietro@unicatt.it)

EDITOR—When is a human being considered to be dead? It is a question that has crossed centuries and it has always been of great concern in modern life. It is a question that has been given even more importance now by the use of invasive mechanical ventilation and neurological criteria to determine death.

In order to speak of the determination of death, however, it is necessary to answer other questions: What is death? Is death the end of life? Is death the end of every biological function of the body? Is death the moment when the soul leaves the body? These questions present different connotations of death - organic death, biological death, ontological death - and require answers in which medical science, anthropology, and philosophy are intertwined.

Scientific societies and national and international organizations have, for decades, been discussing this issue. Although the question has arisen within the clinical context, the definition of death as such cannot be considered a merely medical matter.

For example, to say that a human being is clinically dead due to total cerebral failure (cortex + brain stem) or the loss of functionality of the cortex alone, presupposes a different anthropology of reference. While in the first case the human being dies at the moment in which they lose their intrinsic unity, in the second case the human is considered dead in the absence of the cortical function and the loss of rational and relational capacity.

Death certainly has a biomedical dimension; however biomedical knowledge is not able to solve the whole question.

In the determination of death, the criteria for clinical assessment must, in fact, be consistent with the idea of death, which is primarily philosophical. With reference to the personalist anthropology,<sup>1</sup> according to which the human being is a physical and spiritual unity-in-totality, death coincides with the total and irreversible loss of this unity and of the characteristics that manifest the presence of the vital principle, or immanence, integration, and finality.

The clinical assessment of death must, therefore, verify the absence of those physical conditions that allow all the parts of an organism to act as an integrated whole and be aimed at the preservation of life itself. After the total and irreversible loss of function and the integration of the organic body, it can be deduced that the human being is dead.

Clinical criteria for death can be semiotic, cardiac, or neurological. The aforementioned clinical criteria serve precisely to identify the 'point of no return' that identifies the death of the human being. The article by Graf et al. analyzes in detail the neurological criteria used for the diagnosis of total brain failure and the subsequent determination of death, illustrating the different interpretations and objections raised.<sup>2</sup>

Particular attention is paid to the paediatric context. It is known that the great plasticity of the brain in the first years of life requires more thorough investigations to assess the absence of brain flow. It is equally well known how difficult and painful it is to communicate to parents the death of their child.

Defining, clarifying, and debating neurological criteria for death is necessary.<sup>3</sup> From the analysis of the debate regarding this matter, it is clear, in fact, that what is questioned is not the condition of total brain failure, but rather if this condition is equivalent to the death of the human being. To the point of denying the same biological evidence.

There is no doubt that the possibility of error in the determination of death should lead us to demand more and more reliable and unequivocal criteria, but this cannot justify the rejection of objective

clinical data. There may be a risk that, in the absence of scientifically substantiated criteria, a human being may be declared dead when they are not yet so.

## References

1. Sgreccia E. Personalist Bioethics: Foundation and application. National Catholic Bioethics Center, Philadelphia; 2012.

2. Graf W, Epstein L, Kirschen M. Use of neurological criteria to declare death in children. *Dev Med Child Neurol*. 2024 May 8. doi: 10.1111/dmcn.15954. Epub ahead of print.

<https://onlinelibrary.wiley.com/doi/10.1111/dmcn.15954>

3. The President's Council of Ethics. Controversies in the Determination of Death. A white paper by the president's council on bioethcis. December 2008. Washington, D.C.

<https://bioethicsarchive.georgetown.edu/pcbe/reports/death/> (Accessed: 25 February 2024).