



# The Artificial Prolongation of Life and the Determination of the Exact Moment of Death

*Conclusions of the Working Group*  
October 19-21, 1985



At the invitation of the Pontifical Academy of Sciences, a Working Group met on the 19th, 20th and 21st of October 1985 to study « the artificial prolongation of life and the exact determination of death ».

After having reviewed the recent progress in reanimation techniques and the immediate and long-term effects of cerebral damage, the Working Group discussed the objective criteria of death and the guidelines in facing a persistent state of apparent death. On the one hand data obtained from experiments undertaken in mammals reveal that the resistance of the brain to absence of cerebral circulation can permit recoveries previously considered impossible.

On the other hand, it is established that when the whole brain has suffered an irreversible damage (cerebral death), any possibility of sensitive and cognitive life is definitely abolished, while a short vegetative survival can be maintained by artificial continuation of respiration and circulation.

## **I. Definition of death**

A person is dead when he has suffered irreversible loss of all capacity for integrating and coordinating physical and mental functions of the body.

Death has occurred when:

- a) spontaneous cardiac and respiratory functions have irreversibly ceased, or
- b) there has been an irreversible cessation of all brain function.

From the discussion it appears that cerebral death is the true criterion of death since the definite cessation of cardio-respiratory functions leads very rapidly to cerebral death.

The Group thus analyzed the various clinical and instrumental methods to ascertain this irreversible cessation of cerebral functions. In order to be sure, by means of the electroencephalogram, that the brain has become flat, that is, that it no longer shows any electric activity, the observation must be made at least twice within a six-hour interval.

## **II. Medical guidelines**

By treatment the Working Group understands all the medical interventions, however technically complex, which are available and appropriate for a given case.

If the patient is in permanent coma, irreversible as far as it is possible to predict, treatment is not required, but care, including feeding, must be provided.

If some prospect of recovery is medically established, treatment is also required or pursued.

If treatment may bring no benefit to the patient, it can be withdrawn, care being pursued.

By care the Working Group considers the ordinary help due to bedridden patients, as well as compassion and affective and spiritual support due to every human being in danger.



### **III. Artificial prolongation of vegetative functions**

In case of cerebral death, artificial respiration can prolong cardiac function for a limited time. This organ survival thus produced is indicated when organ explantation is regarded in view of transplantation.

This is possible only in case of cerebral lesion, total and irreversible, occurring in a young subject, essentially after a brutal trauma.

Taking into consideration the important progress of surgical techniques and of the means to increase graft tolerance, the Working Group considers that transplantation of organs deserves all the support of the medical profession, of legislation and of the population in general. The donation of organs must, under all circumstances, respect the last will of the donor or the consent of the relatives if they are present.