

Focus: Current issues in medical ethics

No apologies are needed for returning to the subject of brain death and its definition. There has been so much public discussion that it is important for public confidence that the issues should be clarified. In the following two contributions – one from a professor of neurosurgery and the other from a lawyer – an attempt is made to convince doctors (if that is needed) and lay people alike that what appears to be a new bogey is not one at all but a confusion of thought arising from the use of new technology to treat brain-damaged patients. This, however, might not be the view of Mr Skegg (Journal of medical ethics, 2, 190) who, fearful of the situation, has argued for a statutory definition of death.

Professor Jennett discusses the findings of a conference of the Royal Colleges of the United Kingdom which met to try and remove uncertainty surrounding the diagnosis of brain death. In his view the Colleges' document is to be welcomed for 'its authority and its practicality' and 'should lead to more humane medical practice'. Mr Kennedy, from a legal position, comes to the same conclusion, that with a good code of practice, as advocated by the Royal Colleges, no legislation is called for.

Diagnosis of brain death

Bryan Jennett *Department of Neurosurgery, Institute of Neurological Sciences, Glasgow, and the University of Glasgow*

Diagnosis before decision is a good principle when dealing with serious illness. Few diagnoses are more important than that of death, because the decisions which follow this are apt to lead to irrevocable action. The fear of being buried alive has largely been replaced by concern that organs may be taken for transplantation before the donor is 'really dead' – even though the issue of organ donation arises in only a minority of cases of brain death. Indeed the recent document from the Royal Colleges¹ did not mention transplantation at all – and that was wise. The real importance of recognizing brain death is in order then to act appropriately by withdrawing artificial support systems. If these are continued day after day the patient is deprived of death with dignity, the distress of relatives is needlessly pro-

longed, intensive care staff become demoralized and valuable resources are wastefully deployed. Failure to make a decision to withdraw support from an irrecoverable patient is in effect a decision to deny treatment to another patient who could benefit but who cannot be treated because all the machines, all the beds or all the nurses are already allocated. Resuscitation techniques are now so widely available that brain death is a phenomenon which occurs in every acute hospital. Unless there are guidelines for the discontinuation of resuscitation, once it is obvious that it has been unsuccessful, there may be reluctance to institute rescue procedures – and that means that some patients who could be saved may die needlessly. That successful organ transplantation depends on the ability to make a definite diagnosis of brain death is obvious but this is a less important reason for trying to clarify the criteria of diagnosis than are those already stated, because these apply to all cases of brain death.

Codes of practice for the recognition and confirmation of brain death

There have been several codes of practice in recent years for the recognition and confirmation of brain death. The document of the Royal Colleges¹ is a practical one, and yet is cautious and careful. It acknowledges that most patients in this state will be in general intensive care units, without ready access to neurologists or neurosurgeons or to special investigations such as EEG or cerebral angiography. It clearly states that in most cases neither specialist opinion nor laboratory investigations are needed because the situation is obvious from the circumstances – as when there has been a severe head injury or intracranial haemorrhage or a prolonged period of cardio-respiratory arrest. It recalls that as long ago as 1969, the year after the original Harvard criteria² were published, a publication from Boston indicated that EEG was not necessary for the diagnosis of brain death³. It states when the diagnosis is in doubt that special skills and tests may be needed, and then not so much to discover brain death as to diagnose the underlying pathology, which may be treatable. Drugs, hypothermia and metabolic disorders can all produce states akin to brain death, and when a patient is found in coma, with no history of how he came to be like that, then all efforts must be bent to finding out why coma has occurred. Most instances in which

has been alleged that brain death was mistakenly diagnosed can be ascribed to failure to exclude these factors. Misunderstanding also arises occasionally from confusion between brain death (when breathing has irreversibly ceased and the heart beats only for as long as artificial ventilation is maintained) and other unresponsive states⁴. The commonest of these is the vegetative state⁵, in which patients are without any recognizable mental function and in whom destruction or disconnection of the cerebral cortex can often be demonstrated by careful dissection of the brain after death. However, these patients breathe on their own and if adequately cared for can live for months or even years. Though many sensitive observers regard this as a state worse than death⁶, these patients are not brain dead and the issues of ethics which arise are quite different.

There was an interesting contrast between the response of the *British Medical Journal* and of the *Lancet* to the Colleges document. The former⁷ welcomed it in a few lines, expressing the hope that this would settle the issue finally; the latter⁸ commented at length and expressed lingering doubts that the demands of transplant surgeons for heart-beating donors might still put unfair pressures on those caring for brain-dead patients. Dr Norman Shumway, who maintains a successful cardiac transplant programme in California, has commented on the Colleges document: 'The people who have to be persuaded are the doctors. The public finds it easier to accept this concept than does the medical profession'⁹. Certainly it is now often the relatives of the acutely brain-damaged patient who are the first to raise the possibility that the brain may be dead, or so badly damaged that survival will be in a vegetative state. They often first broach with their doctors the wish that artificial support should be withdrawn if this is certainly the state of affairs. This view has also had repeated support from the religious leaders, the most recent being the Archbishop of Canterbury in his Edwin Sherwin lecture at the Royal Society of Medicine¹⁰. Just how reactionary doctors can be, in spite of public opinion, was shown by a lecture by a neurosurgeon¹¹ published only three weeks before Dr Coggan's lecture. The neurosurgeon explicitly stated that in his unit ventilators were seldom turned off and most patients died within six days. But once brain death has occurred progressive dissolution of the brain and then of other organs proceeds even if mechanical ventilation is maintained; to allow days of decomposition in the ward reflects no credit on the doctors who are so indecisive as to let this happen, and indeed this is exactly what defined criteria for the diagnosis of brain death are designed to prevent. The Colleges document is therefore to be welcomed: with its authority and its practicality it should help to resolve uncertainty in the minds of doctors confronted with brain-dead patients, who are anxious to act appropriately but may be reluctant to

do so because they fear criticism from their colleagues or even legal censure. It should lead to more humane medical practice, which is what society wants of its doctors.

References

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The definition of death

Ian Kennedy *University of San Diego, California**

I have always taken the view that on balance legislation defining death is unnecessary and potentially counterproductive. It is, however, a debate which is fairly evenly balanced. Skegg favours legislation. In this *Journal* (2, 190–191) he assesses and dismisses the arguments against legislation, presents his *prima facie* case for legislation and volunteers a draft proposal. His arguments, however, are not free from objection. The case for legislation is not strong, consisting of three points. First, in the absence of a medical consensus legislation is called for. But, if brain death is to be the definition adopted this does not represent any departure from existing medical practice, it merely involves identifying, in circumstances complicated by modern technology, the state which has always been regarded as death. Thus, there is no absence of medical consensus on the concept, merely, if at all, on the process of recognizing it. This is why I and others have urged some form of code of practice so as to

* When this paper was written Mr Kennedy was the visiting Professor of Law in the University of San Diego. He is a member of the Faculty of Law at King's College, University of London.