Debating the criteria for brain death

In reading the article by Neil Lazar and colleagues on brain death,[1] I was reminded of a statement that Paul Byrne and colleagues made 18 years ago concerning the claims made by advocates of brain death criteria: "Stylized and highly repetitive, they rarely show freshness of expression or other evidence of personal rethinking or assimilation. The mere multiplication of such assertions does nothing to strengthen the position they indicate."[2] Lazar and colleagues rehash 2 claims of the 1981 US President's Commission report[3]: brain death implies a notion of irreversibly lost personhood and whole brain death implies that those brain functions necessary for the integrated functioning of the person are irreversibly lost.

I sympathize with the view that personhood is lost when the integrated unity of the human organism is lost; a number of philosophers have made a good case for this view.[4,5] The second claim is the one that has clearly become problematic since the President's Commission report was published. Machine dependence does not imply the loss of integrated organic unity. A number of people who are clearly alive (and even conscious) depend on machines ranging from cardiac pacemakers to ventilators in order to live. In addition, there have been a number of cases of long-term survival of brain-dead patients. Lazar and colleagues themselves refer to cases of brain-dead pregnant women who have given birth to healthy infants. Even more remarkable are Alan Shewmon's reports of long-term survival of brain-dead children.[6,7] Brain-dead patients have functioning circulatory and respiratory systems (with respiration being defined in terms of gas exchange and energy production at the cellular level). If life is defined in terms of the integrated functioning of a person, then brain-dead patients, whether they be declared whole brain or higher brain dead, are functioning integrated organisms and are thus living human people. If that is the case, the removal of unpaired vital organs from a beating-heart brain-dead patient means killing a living human person.

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The article on the bioethics of brain death by Neil Lazar and colleagues does a superb job of covering the basic issues.[1] However, one important situation that the authors do not discuss concerns the patient with a massive head injury who meets the criteria for brain death imperfectly, perhaps because a small patch of neurons in a brain-stem nucleus are still operating. In real-world clinical practice such patients have zero chance of survival and so are withdrawn from life support, their organs going to waste.

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Neil Lazar and colleagues say that "brain death is defined as the complete and irreversible absence of all brain function."[1] Their claim that brain death "is diagnosed by means of rigorous testing at the bedside"[1] has no scientific validity. It is falsified by much evidence to the contrary, some of which can be accessed in *Beyond Brain Death: the Case Against Brain Based Criteria for Human Death*.[2]

The unscientific attitude of the authors is made obvious by their statement that "electroencephalography has proven to be unreliable as a supportive test for brain death."[1] Decoded, this means that they choose to disregard electroencephalographic evidence of persisting life in brains they wish to call "dead."

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Be careful with the term "bone loss"

We congratulate Nicole Fitt and colleagues on their paper on the influence of bone densitometry on the treatment of osteoporosis.[1] We concur with their recommendation that "physicians not merely tell their patients results but that they also facilitate an understanding of the results" and thus we feel obliged to draw attention to inappropriate use of the terms "bone loss" and "no bone loss" in the article.

"Bone loss" implies change over time. As Fitt and colleagues will certainly agree, "bone loss" is not synonymous with "low bone mass," just as