Linus S. Geisler: The living and the dead
Translation from the original German version: Renate Focke and David W. Evans, MD
URL: http://www.linus-geisler.de/art2010/201001universitas_dead-donor-rule.html

Original German version:
Linus S. Geisler: Die Lebenden und die Toten
UNIVERSITAS, 65. Jahrgang, Nr. 763, Ausgabe Januar 2010, S. 4-13
URL: http://www.linus-geisler.de/art2010/201001universitas_tote-spender-regel.html

First of all I would like to express my sincere thanks to the translators Ms Renate Focke and Mr David W. Evans, MD

The „dead-donor rule“, which has been accepted by transplantation medicine for some 40 years, requires that vital organs be taken only from dead patients; living patients must not be killed by organ removal. Novel concepts of death – such as „brain death“ and „cardiac death“ – having failed to satisfy the demand on this basis, there are now moves to justify the removal of organs for transplantation from the undeniably living. Linus S. Geisler warns against breaking a fundamental taboo.

The living and the dead

Transplantation medicine is beginning to take its leave from the „dead-donor rule“

Linus S. Geisler

An everyday scenario in the world of transplantation medicine: A young man, with no external injuries, is in an intensive care unit, on mechanical ventilation. He seems to be asleep. His heart is beating, his circulatory system is functioning, his kidneys are working as well as his metabolism; from time to time when somebody touches him he makes certain movements. Actually he looks healthier than some fellow-patients in the intensive care unit.

There might also be a young pregnant woman in the ICU. Not only theoretically, but in fact it would be possible to sustain her in intensive care, after diagnosis of „brain death“, until she gave birth to a healthy child (by Caesarean section) – a dead woman capable of giving birth to a child? Several such successful courses of pregnant „brain dead“ women have been reported in the medical literature.

But the young woman or the young man are regarded not as living but as dead – contrary to all appearances. The traditional signs of death that have been known from time immemorial – paleness, coldness, rigor mortis, motionlessness – are not ascertainable.

„Brain dead“ patients are individuals whose bodies (97 percent of them) are alive. Only 3 percent of them – their brain – is diagnosed as dead. De facto, that diagnosis means that their brain is so severely damaged that they can be expected to die within a short period of time even if intensive care measures, particularly artificial ventilation, are continued. According to the criteria of an Ethical Committee in Harvard in 1968 (Harvard Committee) they have to be regarded as dead and may be

treated as dead; life sustaining measures may be ended but, before they are, their organs may be removed for the purpose of organ transplantation while they are in that state.

However, if „brain dead“ patients are treated intensively for a longer period, days or weeks, a very few of them can regain a stable state, their circulation, kidneys, digestive system and metabolism maintaining or resuming normal function. Survival for years is then possible. The American neurologist Alan Shewmon reported 57 such cases of „chronic brain death“.

Most families regard the „brain dead“ not as dead but as alive. The statement of the doctors that they are only apparently alive but dead in fact (only feigned living) is inconsistent with any traditional concept of death. This massive violation of human intuition is one of the main causes for doubting the rightfulness of organ retrieval from the so-called brain dead.

For more than 40 years, the „dead-donor rule“ has been accepted worldwide in the practice of transplantation medicine – although there exists a multitude of different diagnostic brain death criteria. The „dead-donor rule“ has made it possible for thousands of persons to live on thanks to vital organs, like hearts, livers and lungs, taken from the „brain dead“.

But from the very beginning the concept of „brain death“ has not been accepted without contradiction, neither by the public nor by the entirety of scientists. Numerous physicians, philosophers, ethicists, theologians and lay people have been debating endlessly if „brain dead“ individuals are really dead. They wonder if their death is only a legal construct for transplantation purposes and what practical consequences these doubts should have for that programme.

The brain death concept is like a gloomy shadow over transplantation medicine, a shadow it would like to get rid of but can’t. Those involved in the activity are aware of the fact that any discussion about brain death will end in contradictions that are inevitably unsolvable.

Because of the difficulties in conveying the brain death concept to the public, and in order to increase the supply of organs, transplantation medicine has now resorted to new means of procuring organs – from donors who suffer apparently terminal cardiac arrest in the course of various diseases. These are known as Non-Heart-Beating-Donors (NHBD).

The Heart-Dead

Organ removal may be started 2-10 minutes after the diagnosis of cardiac arrest. This diagnosis is made by clinical methods with or without an electro-cardiogram. According to the so-called Maastricht Protocol from 1995 „organ donors without a beating heart“ can be classified in the following five categories:

- no heartbeat on arrival in the hospital
- organ donor after futile reanimation
- organ donor whose cardiac arrest is anticipated on withdrawal of life-sustaining measures
- cardiac arrest after diagnosis of brain-stem death
- cardiac arrest of an in-patient

In the concrete sense it is about comatose patients, patients after a stroke or a cardiac infarct or victims of an accident. But seriously ill persons whose death is not imminent are also suitable if they consider their quality of life no longer acceptable – on condition that they or their surrogates provide valid consent to the denial of life-sustaining measures.

This procedure is not legal in Germany since according to the German Law of Transplantation organs may be retrieved only on condition that brain death was definitely diagnosed or if at least 3 hours have passed since the heart stopped beating.

But in many other countries like the United States, Austria, Switzerland, the Netherlands, Spain and Belgium, organ procurement from donors after cardiac arrest has been routine for years. In the USA, 8 percent of organs for transplant are taken from donors after circulatory arrest; in Switzerland 11 percent.

In order to increase the supply of organs in good condition for transplantation, they kept trying to shorten the waiting period before their removal – to as little, even, as 60 seconds after the last observed heartbeat. This has been justified by arguing (clinically refutable) that as a rule a heart which has not been beating for 60 seconds does not begin beating again spontaneously; at most it can possibly be induced to start beating after attempts at resuscitation.

The condition for the procurement of vital organs from individuals after cardiac arrest is that the cardiac arrest must be „irreversible“. But the contradiction of this postulate is obvious: The explicit aim is to transplant an „irreversibly“ non-beating heart into another human being with the aim that it will function perfectly in his body – which in fact is successful in many cases.

The conceptual solution they have tried is to manipulate the concept of „irreversibility“. „Irreversible“ should, they say, refer only to the situation of the heart in the donor's body – not to the transplanted heart. Here they are operating with a so-called „reversible irreversibility“. Besides they have tried to assume irreversibility already when a heart stops beating and the decision was taken not to resuscitate, although attempts at revival might often restore these functions.

The attempt to take observation of what appears to be the final heartbeat as a reliable sign of death, and as a criterion for organ retrieval, is as disputable as the brain death concept. Claiming the observation of no heartbeat for only a few minutes as a reliable criterion of death is invalidated by the well known fact that successful reanimation can sometimes be achieved after many more than ten minutes of cardiac arrest.

The dilemma

Neither the principle of „brain death“ nor „death after brief cardiac arrest“ can clear transplantation medicine from the suspicion that vital organs can be retrieved only from humans who are regarded as dead but have living bodies. „Warm corpses and cold embryos“ are according to the French psychoanalyst Michel Tort in his book „Le désir froid – Procréation artificielle et crise des repères symboliques“ the most sought after objects of our society.

The „dead-donor rule“ has more and more become a heavy burden which transplantation medicine cannot get rid of – much as it would like to do so – as long as it has to stick to the rule that vital organs can only be retrieved from the dead.

Of course there has been a search for alternatives, e.g. to relativize the concept of brain death and to define that not total brain failure but the failure of special parts of the brain is sufficient for procuring vital organs. For so-called brain-stem death, the irreversible failure of the brain stem is sufficient for organ retrieval. The concept of other varieties of partial brain death turns out to be even more problematic. If, for instance, failure of only the cerebrum is considered sufficient, this principle would allow organ retrieval from patients in a persistent vegetative state or anencephalic children.

All alternatives that could evade the concepts of brain death or briefly observed cardiac arrest require a fundamental break of taboo which means quitting the „dead-donor rule“. In plain language: Quitting the „dead-donor rule“ means nothing but to legitimate the retrieval of vital organs from living individuals for organ transplantation purposes. They are trying to pave the way for this strategy now.

Abandoning the „dead-donor rule“

Robert D. Truog, Professor of bioethics and anaesthesia at Harvard University, and bio-ethicist Franklin G. Miller, of the National Institutes of Health in Bethesda, proposed in 2008 in the „New England Journal of Medicine“ (NEJM) [1] a solution for the fundamental dilemma of transplantation medicine which has so far been regarded as unethical.

The significance of their proposal is emphasized by the fact that both scientists are renowned worldwide in the area of bioethics and transplantation medicine and the NEJM is known as the best medical journal.

Truog and Miller propose no less than to abandon the „dead-donor rule“ as the essential pre-condition for the retrieval of vital organs. The procurement of vital organs for transplantation purposes should be legitimate and ethically indisputable. Abandoning the „dead-donor rule“ would allow them to do without unnecessary as well as indefensible revisions of the definition of death.

As an alternative they propose to retrieve vital organs from patients with irreversible, devastating, neurological damage for organ transplantation purposes on condition that there is valid consent from the patient or surrogates. The organs are retrieved from living patients without diagnosing their brain death. The essential message of Truog and Miller is: „Whether death occurs because artificial ventilation is withdrawn or by organ removal – the ethically relevant pre-condition is valid consent given by the patient or his surrogate. If consent has been given, and anaesthesia administered, harvesting of vital organs before death neither injures the patient nor constitutes an act of injustice. If precautionary measures are taken no patient will die who wouldn't have died anyway after ending the life-sustaining measures.“ [2]

The scenario is unmistakable: The point is they are living patients with irreversible neurological damages who haven't been diagnosed brain dead who would die without life-sustaining measures. By demanding anaesthesia the authors indirectly admit these patients might feel pain. The authors presume this procedure would meet with more unanimous approval than when doubts about the death at the time of organ removal prevailed. Number and quality of organs retrieved this way could possibly be maximized.

The living and the dead

Following Truog and Miller's proposal would have obvious advantages. The most important point would be the attempt at a kind of honesty. Macabre semantic attempts at justifying the brain death concept, such as irrelevant, false, descriptions of brain death as a kind of inner beheading, would be set aside. Similarly, there would be no place for verbal nonsense – uttered even by a renowned medical lawyer like Hans Ludwig Schreiber – such as „The brain dead is more definitely (sic) dead than the clinically dead.“ Following their proposal they might especially avoid the inhumane attack on bereaved families' when pressed to donate the organs of their „brain dead“ family member – the consequence of which can be a lifelong trauma. The families would no longer be accused of antisocial „individual wrong comprehension“ when perceiving their family member not as dead but as alive – contrary to many scientific assertions.

The new scenario presents itself as a clinically clear matter-of-fact proposal: the surgical removal of organs as a legal last measure with a dying patient, causing his death.

All this cannot obscure the monstrosity that, for the first time in the medical history of the civilized world, doctors would be allowed to cause the death of a patient in order to make use of him for the benefit of other patients.

This procedure must not be compared to assisted suicide, as this has the fundamental aim of ending the suffering of a dying patient. The new procedure, by contrast, prolongs the dying process massively for hours. The aim of medical care – to keep patients alive, to cure them or to relieve their pain at least – is perverted thereby. The licence to kill would become a legal medical qualification. The permanent temptation to retrieve organs „as soon as possible“ would lead to an expansion of the „combat zone“ in order to get organs. According to this concept, the burden of organ donation is imposed on the living, not on the „brain dead“.

The new proposal to abandon the „dead-donor rule“ is not as free from technical problems as may appear at first sight. It is founded on the premise of „irreversible“ neurological damage. Every concept of irreversibility is founded on so-called clinically measurable facts, but also on the intrinsically and inescapably „soft“ components of medical practice. Every experienced doctor recognizes the fallibility of prognoses of irreversibility made in good faith on the best evidence available at the time.

The next step, to acceptance of the demand that „practically irreversible“ will do, is not so far as some might think. „Practically dead“ was an often-heard argument in the debate about brain death.

Alternatives to organ donation are pursued with much less enthusiasm. These include development of clinically useful artificial hearts, optimizing concepts of therapies, and endeavours to cultivate special cell populations (e.g. hepatocytes) instead of transplanting organs. But investment in a widespread and intensive prevention effort, reducing the need of organs in the long run, is surely paramount.

In one of his last letters (Nov. 1992), philosopher Hans Jonas wrote to the medical examiner Hans-Bernhard Wuermeling, almost imploringly, about organ retrieval from the „brain dead“: „Let them die beforehand.“ Jonas knew very well what he was talking about because he had observed – contrary to most philosophers – the procedure of retrieving organs from „brain dead“ individuals. But he was also aware of the fact that he was wasting his breath.

Recommended Books:

J. Hoff, J. in der Schmitten (Hrsg): Wann ist der Mensch tot? Organverpflanzung und „Hirntod“-Kriterium. Reinbek. 1995

Vera Kalitzkus: Dein Tod, mein Leben: Warum wir Organspenden richtig finden und trotzdem davor zurückschrecken. Suhrkamp, Frankfurt a. M. 2009

Footnotes:

[1] Truog RD, FG Miller: The Dead Donor Rule and Organ Transplantation. N Engl. J Med 359, 7, August 14, 2008

[2] Whether death occurs as the result of ventilator withdrawal or organ procurement, the ethically relevant precondition is valid consent by the patient or surrogate. With such consent, there is no harm or wrong done in retrieving vital organs before death, provided that anaesthesia is administered. With proper safeguards, no patient will die from vital organ donation who would not otherwise die as a result of the withdrawal of life support.