Panel Asks "When Is a Person Dead?"

Presidential commission considers "brain death" as possible legal definition for all 50 states

A presidential commission recently grappled with the old but yet unresolved issue of defining death. It is examining the possibility of recommending that all states adopt a uniform definition of death and met to discuss the subject in Washington 11 and 12 July. But at the end of the meeting, at which physicians and clergy argued about whether death should be defined based on cessation of either brain function or heartbeat and respiration, the position of the President's Commission for the Study of Ethical Problems in Medicine and Biomedical and Behavioral Research was undecided.

Twenty-five states currently have laws that define death as the "irreversible cessation of total brain function." The remaining 25 equate heart and respiratory failure to death, although 3 of these have ruled that the brain death definition is applicable in a handful of cases.

Commission staff director Alexander Capron, a University of Pennsylvania law professor and expert in the brain death issue, believes there should be a national standard. "Why should a family have to decide when to pull the plug on artificial support systems if the person is already dead based on brain death?" he asked.

The physicians who testified before the commission all agreed that irreversible cessation of total brain function is equivalent to death. Some theologians agreed, but others argued that heart and lung failure are the prerequisites for death to be declared.

"It's a tragic situation especially when a child or young adult with no brain function looks normal," said Ronald Cranford, a neurologist at Hennepin County Medical Center, Minneapolis. It is emotionally draining for the family and physician, he said. And maintaining a person on artificial support systems is costly for the family and ties up equipment that might be better used on another patient, Cranford said. He estimated that hundreds of families struggle with the problem every year.

Some of the clergy had strong words against adopting the brain death definition. Stopping treatments based on brain death "can only be regarded as acts of homicide by those who perceive the patient as yet alive," said Rabbi J. David Bleich of Yeshiva University. Loss of consciousness has never been a factor in determining death, he said.

Another Yeshiva professor, Rabbi Moses Tendler, maintained that the total brain death definition is compatible with Jewish teaching. Tendler urged, however, that clinical criteria be tied to the brain death definition to avoid mistakes in declaring someone dead. States that now have brain death statutes do not specify criteria.

Tendler said that a test, such as an EEG, may not be precise enough because either the machine or its operator can make errors. He called for requirements that would specify the length of time a person must remain in a coma before treatment is stopped and said he would require testing for an overdose of barbiturates or hypothermia, both of which can mimic brain death.

More definitive testing might be carried out with an angiogram or other techniques, but their use raises a question whether extensive testing itself might not be harmful to the dying patient, Tendler noted.

The physicians, however, urged the panel not to specify clinical criteria with a brain death definition given changes in technology.

Like the rabbis, the two Catholic priests who testified differed on how to define death. Father Paul Quay of St. Louis University said brain death is a wholly unsatisfactory definition because it invites an increase in organ transplants and dissection of the bodies for research.

"Brain death statutes would seem to exist for essentially one reason only: to permit aggressive action on a body that would, but for that statute, be considered alive," said Quay, who believes a definition of death should be based on heart and respiratory failure. Cranford and other physicians quickly countered, saying that only a small percentage, perhaps 1 or 2 percent, of brain death cases involve questions of organ transplantation.

Father Kevin O'Rourke, also of St. Louis University, supported a definition of death based on cessation of brain function, as did Protestant theologian Paul Ramsey of Princeton University. O'Rourke, like Tendler, emphasized the need for specific clinical criteria to accompany a statutory definition of death.

By the end of the day, the weary commissioners were undecided about how to proceed on the issue. At one point, one panel member said, "I'm confused."

No resolution was expected at the hearing, but Capron said later that the commission may decide at its next meeting on 15 September to prepare a report or recommendation for Congress and the President.

The commission's chairman, Morris Abram, a New York lawyer and former president of Brandeis University, predicted that a drafting of a uniform definition based on brain death, without criteria attached, would pose no major problems because the American Medical Association and the American Bar Association already support such a definition. He also noted that because religious groups are not united on the subject, it is not likely that those who oppose brain death as a legal standard will be powerful enough to cause sustained problems.

In other business at the meeting, the commission decided it would consider taking up ethical problems in genetic engineering as requested in a statement by the United States Catholic Conference, the Synagogue Council of America, and the National Council of Churches. It plans to make a decision at its next meeting (*Science*, 25 July).

The commission has a mandate to address several specific ethical issues as

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well as those of its own choosing. Other areas that the panel is to study are: requirements for informed consent of patients undergoing medical testing in research and nonresearch procedures; the availability of medical services; privacy of medical records; and programs for genetic testing, counseling, and education.

The law requires the 11-member commission, which was sworn in last January, to have three persons from the biomedical research community, three physicians or other health care professionals, and five people from disciplines such as ethics, theology, or the humanities.*

The commission succeeds two federal panels—the National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research, which served from 1974 to 1978, and the Ethics Advisory Board that was created in 1975 under the former Department of Health, Education, and Welfare. The ethics board is to be phased out in September.

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*Current commission members are: Morris Abram; Renee C. Fox, a sociologist at the University of Pennsylvania; Dr. Mario Garcia-Palmieri, chairman of the Department of Medicine, University of Puerto Rico; Albert R. Jonsen, chairman of the bioethics group for the five University of California Schools of Medicine; Mathilde Krim, Sloan-Kettering Institute for Cancer Research; Donald N. Medearis, chief of Children's Service, Massachusetts General Hospital; Dr. Arno G. Motulsky, geneticist, University of Washington School of Medicine; Dr. Frederick C. Redlich, professor of psychiatry, University of California at Los Angeles; Anne Scitovsky, chief of Palo Alto Research Foundation's health economics division; and Dr. Charles Walker, a physician from Nashville, Tenn.; and Patricia King, a law professor at Georgetown University, recently resigned to take a position with the Justice Department. Her successor has not been named.

Condor Flap in California

Death of chick during nest visit intensifies dispute over how to save the species

In ancient times the California condor, the largest bird in North America, soared the skies along the Pacific Coast from British Columbia to Baja California. Now this quintessential California symbol is reduced to a population of about 30, plying a 50,000-square mile area in the mountains of central California.

Treated as an endangered species since 1949, the carrion-feeding condors have nonetheless been diminishing in number. Last May the state approved a desperate last-ditch program, involving radio tracking and captive breeding, to revitalize the condor population—despite intense opposition from some conservation groups who believe that any "hands-on" intervention with the species is doomed to failure. Now the death of a baby condor on 8 June, caused by stress induced during a "nest check" by biologists, has resulted in suspension of the permit for the salvation program pending a decision by California's Fish and Game Commission on what to do next.

The California Condor Recovery Plan is one of the most elaborate, highly publicized, and expensive programs ever to be mobilized on behalf of an endangered species. Money earmarked for it comes to $1.25 million, with $500,000 over 5 years from the National Audubon Society, and a commitment of $750,000 over the next 2 years from the federal government.

Department of Interior Photo

California originally launched a Condor Recovery Plan in 1975. A "draft contingency plan" the following year first broached the idea of capturing wild condors for captive propagation. Early last year the U.S. Fish and Wildlife Service (FWS) approved implementation of the contingency plan, and at the end of 1979 the program was signed by several federal agencies, the California Fish and Game Department, and the National Audubon Society. At a hearing before the Fish and Game Commission on 30 May various biologists and wildlife experts testified that the program was essential for preventing further decline of the condor population, which, with linear extrapolation of current trends, will reach zero by 1995.

The program, to be conducted by the FWS and the National Audubon Society, has two phases. The first involves trapping two adult condors—a feat that has never been performed with the California variety—examining them, measuring them, and sexing them, a procedure that involves laparoscopy since there is no external way of identifying their sex. Then they are to be equipped with radio tags at the base of the wing with 14-inch antennas that fit along the leading edge of the wing. The tags will emit beeps at different frequencies which can be picked

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