clusive, but they do suggest that, on questions of new weapons and arms control, the White House will now have to deal as much with Congress as with the Joint Chiefs of Staff.

One potent congressional critic of Vladivostok is Senator Henry M. Jackson (D-Wash.), an announced candidate for the presidency in 1976. Although more hawk than dove in past years, Jackson has denounced the Vladivostok ceilings as too high and proposed that the parties agree that 700 of the 2400 delivery vehicles allowed on each side not be modernized—and hence left ripe for eventual elimination. Without such a promise of future reductions, the Senate might not ratify a treaty based on the Vladivostok agreement, Jackson seemed to imply.

What all this adds up to is that the United States may bear a special responsibility to take the lead in SALT

and press hard for substantial arms reductions and qualitative restraints. Because of the relative openness of its society and the counterbalancing elements in its government, the United States should find it easier than the Soviet Union to put military programs in perspective and weigh their risks as well as their advantages to national security.

An early test of the seriousness of the SALT negotiations will turn on whether each side insists on deploying all the weapons Vladivostok would allow. As many arms controllers view the matter, if the United States shows restraint by not building up to the ceilings, the Soviet Union might behave similarly. Kistiakowsky believes, too, that perhaps the only way to get an agreement restricting missile flight testing would be for the United States first to cut back its testing unilaterally,

perhaps by a modest 10 percent a year.

Such proposals for unilateral initiatives or restraint in arms control always run into the objection that the United States cannot afford to do other than insist on reciprocity and equality. The argument is made that equality is necessary to avoid any "perception" of nuclear inferiority, even if in actuality U.S. strategic forces are the very essence of redundancy and overkill.

A very real problem of perception, and perhaps the only serious one, is that nuclear weapons and the threat of nuclear war are viewed with a comforting abstractness. If there should ultimately be a breakthrough in the SALT negotiations, it will be because the U.S. and Soviet leaderships have decided to act on the reality that nuclear weapons are a terrible and continuing threat to mankind.

-Luther J. Carter

Intensive Care for Newborns: Are There Times to Pull the Plug?

Would it ever be right not to resuscitate an infant at birth? Would it ever be right to withdraw life support from a newborn whose chances of surviving on its own and living to lead anything even close to a normal life are virtually nil?

To each of these questions a group of physicians, lawyers, social workers, ethicists, economists, and laymen unanimously answered, "Yes," when they considered the "Ethical issues in newborn intensive care" at a conference in the Valley of the Moon in northern California. Their thoughts on this complicated subject and a "moral policy for neonatal intensive care" they are proposing will be spelled out in the June issue of *Pediatrics*.

The need for a coherent policy on questions of life or death for critically ill newborns is urgent. Neonatal intensive care units, in which newborns are treated with increasingly sophisticated medical care, used to be few and far between. Now, there are dozens spread across the United States, each

prepared to receive desperately sick newborns from miles around. And more and more babies who, only a few years ago, would have died within weeks or months of birth are being saved. Thus, infants with Down's syndrome, hydrocephalus, and a number of other genetic and congenital disorders are living. Remarkable progress in resuscitating infants with respiratory problems is saving significant numbers of lives, including those of premature babies who are just too tiny to make it on their own.

This was brought out clearly last month, when Richard E. Behrman and Tove S. Rosen of the College of Physicians and Surgeons, Columbia University, delivered what is probably as comprehensive a report as exists on the subject of fetal survival to the National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research. Although the researchers are careful to point out that their data and conclusions are severely limited by the fact that there is very

little comprehensive statistical information on the subject, it is nonetheless apparent from the information they gathered for the commission that, from one point of view, things are improving. For example, data from New York City for the years 1962–1971 show a 68 percent improvement in survival rates for infants born weighing less than 1000 grams.

The question, to which there is no simple answer, is whether these saved infants are normal or whether there are occasions when medical technology does for the very young what it now frequently does for the very old—keep the body alive but not the mind.

California Conference

The Valley of the Moon conference was convened by 3 men from the University of California at San Francisco. Two of them are doctors: Roderick Phibbs and William Tooley. One is a Jesuit philosopher: Albert R. Jonsen.* Discussion was directed toward problems raised by five case summaries and, in the end, the convenors drew upon the contributions of the 17 conference participants in formulating the moral policy they offer to "health professionals involved in neonatal care for their critical consideration."

Their feeling is that a policy, or some

^{*} Jonsen is a member of the national commission, a post to which he was named subsequent to the Valley of the Moon conference.

mechanism for making decisions, should be in place in every neonatal intensive care unit in advance of the moments of crisis during which life and death decisions must actually be made.

"This moral policy will have an air of unreality about it," they declare. "This is the inevitable result of considering moral decisions apart from the agony of living through these decisions. It reflects the abstraction from the actualities of fear, self-interest, exhaustion, the dominance of some and the truancy of others charged with responsibility and duty. But the air of unreality is, we believe, the necessary cool moment which philosophers say should precede any reasonable judgment."

To put the essence of their moral policy in its starkest form, they suggest that there are indeed circumstances in which it is all right to let a newborn baby die.

Not everyone agrees.

The opinions and beliefs of people on each side of the issue are of more than academic interest to each other. Among other reasons for this are cases in which one group has tried to use the power of the law to impose its will on the other. A recent situation in Norfolk, Virginia, is illustrative. A baby was born with hydrocephalus, an accumulation of cerebrospinal fluids in the brain. The fluid-filled head swells. Often the damage is so severe that the infant will never be able to participate even minimally in human experience. A decision was made not to feed the Norfolk baby. However, according to newspaper accounts, the Virginia Society for Human Life intervened, even to the point of trying to have prosecuted whoever made the decision to let the baby starve, and the child was sent home. There are those who believe the society's interest in the case is good; others think the "right-to-life" group had no business becoming involved.

The participants in the Valley of Moon conference considered the dilemma of neonatal intensive care from a number of points of view. They assessed the state of the medical art, including that of predicting whether a baby will suffer serious handicaps and concluded that, although it is generally not possible to make an accurate prognosis, in part because some forms of mental retardation are not

Recent advances in biomedical science are raising important problems of ethics and public policy. This is one of a series of occasional articles planned for News and Comment on the conflicts involved.

apparent for a matter of years, "neonatal intensive care has improved chances for survival and has reduced the numbers of survivors with severe brain damage."

They thought about the legal and economic questions involved in neonatal intensive care and the effects a premature, sick, or defective baby can have on its family. F. Raymond Marks of the University of California School of Law, Berkeley, drew an analogy between a defective child and an unwanted fetus which, he noted, can be legally aborted. "The maintenance of a defective child, like the carrying of a fetus to full term, may involve not only broad social costs, but a threat to its family's viability," the conference report notes, adding that "Marks argues for a social policy that would withhold legal personhood from certain carefully defined categories of high risk infants until a clear diagnosis and prognosis can be made concerning them and until their parents have made an informed decision whether or not they want to keep and nurture these infants."

Crux of the Argument

It is just this sort of position that stirs tremendous controversy. Some persons find it eminently sound. Others think it clearly wrong. It is reminiscent of something that the assistant district attorney of Suffolk County said to the jury during the trial of Boston physician Kenneth C. Edelin (Science, 7 March). Summarizing his case that Edelin had committed manslaughter in the death of a fetus during a legal abortion, Newman A. Flanagan argued in impassioned tones against postponing legal personhood, declaring that a baby has to have full rights from the moment of birth, not an hour, or a week or a month later.

The Valley of the Moon conferees were well aware of conflicting points of view. They believe it to be all the more reason for adoption of a moral policy to guide individuals faced with these life and death decisions. "When a multitude of individuals, with diverse moral convictions, face a series of decisions about similar cases, some way should be sought to accommodate diverse private beliefs within some degree of broad agreement about how such cases should be managed. This effort we call making a moral policy."

Their conclusions:

Every baby born possesses a *moral* value entitling it to the medical and social care necessary to effect its well-being.

Parents are principally *responsible* for all decisions regarding the well-being of their newborn children.

Physicians have the *duty* to take medical measures conducive to the well-being of the baby in proportion to their fiduciary relationships with the parents.

The state has an *interest* in the proper fulfillment of responsibilities and duties regarding the well-being of the child.

The responsibility of the parents, the duty of the physician, and the interests of the state are conditioned by the medicomoral principle, "do no harm, without expecting compensating benefit for the patient."

Neither physicians nor parents are obliged to initiate or to continue actions which do harm to the well-being of a newborn infant. That well-being consists generally in a life prolonged beyond infancy, without excruciating pain and with the potential of participating, in at least a minimal degree, in human experience.

. . . Should it be necessary, in the case of disagreement between parents and physician, to seek legal judgment, either to continue or to terminate care, the court should weigh heavily the prognosis regarding quality of life and the injunction, "do no harm."

If an infant is judged beyond medical intervention, and if it is judged that its continued brief life will be marked by pain or discomfort, it is permissible to hasten death....

If it is necessary to discriminate between several infants [because of lack of space in a newborn intensive care unit] it is ethical to recommend that therapeutic care for an infant with poor prognosis be terminated in order to provide care for an infant with better prognosis.

The framers of this moral policy describe the criteria they have set forth as "conservative . . . in the hope of steering a middle course between an undiscriminating policy of saving and sustaining all life and an inconsiderate consigning of the most vulnerable to destruction."—Barbara J. Culliton