Letters

When Death Is Inexorable

Dael Wolfle's editorial "Dying with dignity," (19 June, p. 1403) has struck a responsive chord. As anesthesiologists intimately concerned with the preservation of life in a hospital intensive care milieu, my colleagues and I are frequently plagued by uncomfortable introspections concerning the quality of life we preserve. It is now possible, please remember, to postpone through extraordinary measures every death which occurs in a hospital setting. Do we want that?

So frequently we find ourselves embarking upon a resuscitative effort, which in the urgency of the acute situation leaves no time for a meaningful prognosis, only to find, a few days later, that we are committed to a futile effort which will consume thousands of skilled man-hours and dollars and will be to no avail. Even in those tragic individuals whose brain damage is not so complete as to meet the established criteria for "the neurologically dead," the inexorable but agonizingly slow downhill progression is all too apparent early-but unfortunately, not incontrovertibly predictable at that time.

As Wolfle suggests, I believe that we, especially in medicine, must direct our thoughts to these problems. One approach would be to develop reliable prognostic guidelines for the periodic evaluation of patients whose lives are being preserved through extraordinary means, just as we have developed criteria for irreversible brain death and for the assessment of newborn infants. The earlier identification of those patients who are hopelessly ill may help to restore perspective and some measure of dignity to our care for the dying.

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"Dying with dignity" invites religious consideration. The following report was presented by the Committee on Responsa of the Central Conference of American Rabbis in June 1969 (Yearbook, C.C.A.R., vol. 79, pp. 118–121):

Question: A terminal patient was dying as a result of a series of strokes. Two physicians, one of whom was the patient's son, decided with the consent of the family to hasten the end by withdrawing all medication and fluids given intravenously. Is such procedure permitted by Jewish law?

Answer: If the patient is a hopelessly dying patient, the physician has no duty to keep him alive a little longer. He is entitled to die. If the physician attempts actively to hasten the death, that is against the ethics of Jewish law. In the case described the physician is not really hastening the death; he has simply ceased his efforts to delay it.

The ethic of Judaism underscores *Ecclesiastes*: "There is a time to live and a time to die." A man has a right to die with dignity.

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Despite Wolfle's attribution, it was Vespasian who declared, "An emperor should die standing up." But Marcus Aurelius, less concerned with appearances, said, "Thou hast embarked, thou hast made the voyage, thou art come to shore; get out." (Meditations, book 3, paragraph 3).

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Predicting Ovulation—A Reply

Ghiradella asked whether there was an ideal predictor of ovulation time (Letters, 5 June). It is possible to predict ovulation by a chemical assay of pooled 12- or 24-hour urinary estrogen. The samples must be run through for the first month to establish a base line. Subsequent plottings of the daily levels of estriol, estrone, and estradiol will indicate quite clearly-5 days ahead of the time in fact-when ovulation will occur. The originator of the chemical methods of assaying human estrogens demonstrated this quite clearly [J. B. Brown, J. Biochem. 60, 185 (1955)] more than 15 years ago. Variations of his technique and other refinements of it have been published by other workers. The usefulness of this assay was demonstrated by its application in a few cases of infertility where time of ovulation was a critical factor in obtaining impregnation. Most recently Miyata and Taymor have devised an assay procedure for luteinizing hormones which I understand can be used to predict ovulation (Fert. Steril., in press). The authors claim it is much simpler than determining estrogen levels.

However, it is not clear, to me at least, that predicting ovulation time will necessarily be useful in preventing conception, as Ghiradella seems to believe. I am not saying that such information is not of value, but I question that more than a very few couples could use it in practice . . . The means to predict accurately a woman's ovulation time are at hand but whether these means would be practicable as a common or garden method of contraception remains conjectural.

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Ghiradella's final statement, "With a really effective Distant Early Warning System, even the rhythm method ought to work," assumes that ovulation is an event which occurs spontaneously, for which a clock is set, and we have only to learn to listen to its strikings. This assumption, unfortunately, is incorrect. Faithful Catholics have learned from painful experience what open-minded medical practitioners and some courageous gynecologists in countries exposed to victorious armies after the last world war have long recognized: ovulation induced by coitus may occur at any phase of the menstrual cycle, the more so in teenage girls and preclimacteric women. Oral contraceptives are successful and convenient because they seem to eliminate both kinds of ovulations: the spontaneous, mid-cyclic ones as well as those which are induced by the nervous stimulus of coitus.

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Intransigent Conservationists

Eipper's caustic list of assertions or implications representing "typical attitudes of polluters" is fair, but one-sided ("Pollution problems, resource policy, and the scientist," 3 July, p.

Stopped-flow trace of a ferricthiosulfate reaction at 0.2 sec/cm, 590 nm, and 50–100% transmittance full scale. The reaction products decompose too rapidly for conventional T-jump system.

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Durrum Instrument Corporation 3950 Fabian Way Palo Alto, Calif., 94303 11). For balance, here are some typical attitudes of conservationists in opposition to a proposed project:

The program, no matter how proposed, must not be enacted.

Progress is no concern of ours, only preservation of the environmental status quo.

No need is so important as to outweigh the least potential ill effect on the environment.

No one supports the program, except the officers and shareholders of the sponsors.

Data used to predict dire effects of the program are the only valid, pertinent data.

It is not necessary to prove nor offer strongly suggestive evidence that the development will damage the environment; the allegation is enough.

It is always possible to base opposition on some possible effect—no matter how improbable—that the sponsor has not considered.

If the program as presented is not susceptible to attack, assume some unstated future development and attack that.

Whether or not applicable alternatives to the program can be found is no concern of ours.

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Polywater: Ideal Research Topic

Joel Hildebrand, a distinguished elder statesman of science, recently dismissed anomalous water research in a disparaging manner (Letters, 19 June), and offered an explanation of the phenomenon which appears to have been disproved even by research workers who vigorously doubt the existence of a new form of water (1). Unfortunately that attitude and its presentation outside the framework of usual scientific discussion characterize much of the scientific community's approach to this phenomenon.

A detailed analysis of current research certainly leads one to believe that there is no better than an equal—probably much lower—chance of its existence, but it is notable that even the popular press has displayed a more objective viewpoint (2) than that often heard among prominent scientists. There is ample evidence (not involving the present correspondent) that scientists holding opinions similar to Hil-