however, the data are far from complete, and further trials are both needed and warranted.

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End-of-Life Issues and the Do-Not-Resuscitate Order

Who Gives The Order and What Influences the Decision?

Life has been described as being, in many ways, a river: “God makes the rivers to flow. They tire not, nor do they cease from flowing. May the river of my life flow into the sea of love that is the Lord.” Or as being a journey: “Life is a journey from the cradle to the grave and beyond, and back to the cradle and on from life to life.” We do our best to help our patients overcome the obstacles during this journey that are posed by various illnesses and accidents. We make them better, and on they go with their travels. But as the patient nears the end of this journey, our focus changes. The intent at that time is not to cure, but to palliate; not to be a mere academician, but to be a sensitive and compassionate physician who respects the dignity of the patient and family, and their right to refuse treatment. It has been said that “a good physician knows the difference between postponing death and prolonging the act of dying.” A physician who has understood and assimilated this advice will be able to provide excellent care to his patients as they approach the end of life. Dr. Roger Bone, who has written poignantly about his own experience with the process of dying, in his guide entitled Reflections has said: “Dying can be a peaceful event or a great agony when it is inappropriately sustained by life support.”

When the patient reaches the end of his journey, and life as we know ebbs out of the body, we are faced with different types of puzzling questions and painful decisions. Should you or should you not revive this patient? Who makes that decision: the patient, the family, or the physician? Besides the patient, who else has the moral and legal right to...
make this sensitive and irrevocable decision? Should this decision take into consideration the patient's age and the type of underlying disease? Should cost ever be one of the considerations? What should a physician do, if, in his judgment, it would be futile to resuscitate the patient, but a do-not-resuscitate (DNR) directive was never signed or is not available in an emergency, or if the family wants "everything to be done"?

In this issue of CHEST, Kelly and colleagues (see page 957) have sought to answer one of these questions. In a questionnaire, they presented 20 clinical vignettes based on their actual cases and asked the physicians to quantify the strength of their opinions on discussing and recommending DNR orders. They found that pulmonary/critical-care medicine physicians were significantly more likely to recommend DNR orders more strongly than were cardiologists, house staff, and general internists. Among the house staff, the likelihood of recommending a DNR order correlated significantly with increasing years of experience. Thus, it appears that the strength of DNR order recommendations vary with the specialty training and the experience of the physicians. Mebane and colleagues, in a mailed survey of 280 white and 157 black physicians, found that with regard to physicians' preferences for future treatment for themselves, for a persistent-vegetative-state scenario black physicians were more than six times more likely than white physicians to request aggressive treatments (i.e., cardiopulmonary resuscitation [CPR], mechanical ventilation, or artificial feeding for themselves [15.4% vs 2.5%, respectively; p < 0.001]). In a survey of Japanese physicians in Japan and of Japanese-American physicians in the United States, Asai and colleagues found that Japanese-American physicians were less likely to recommend CPR for their patients or for themselves compared to the Japanese physicians. Another factor that seems to affect end-of-life decisions is the status of the attending physician. Kollef found that patients who were cared for by a university-based ICU attending physician, compared with patients who had a private attending physician (either community-based or university-based), were more likely to undergo the active withdrawal of life-sustaining treatment.

The decisions pertaining to end-of-life care obviously would be made by the physician in consultation with the patient and the family. The physician, however, needs to remember that there are numerous factors that influence the patient and families' attitudes and decisions in this regard. Some of the strongest factors seem to be the underlying disease and its prognosis, and race or ethnicity. Frankl and colleagues, in a survey of 200 medical inpatients, found that life support was desired in 90% of the patients if their health could be restored to its usual level, in 30% if they would be unable to care for themselves after hospital discharge, in 16% if their chance for recovery was hopeless, and in only 6% if they would remain in a vegetative state. Caralis et al, in a survey of 139 respondents, found that more African-Americans (37%) and Hispanics (42%) compared to non-Hispanic whites (14%) wanted their doctors to keep them alive regardless of how ill they were. Shepardson and colleagues, in their sample of 90,821 consecutive admissions to 30 hospitals, also found that the rate of DNR orders was lower in African Americans than in whites (9% vs 18%, respectively; p < 0.001). Wenger and colleagues, in an observational study of 14,008 hospitalized Medicare patients, found that DNR orders were assigned to 11.6%. After adjustment for patient and hospital characteristics, DNR orders were assigned more often to women and patients with dementia or incontinence and were assigned less often to black patients, patients with Medicare insurance, and patients in rural hospitals. Vaughn and colleagues also found that race plays a role in these choices. Japanese residents of an Asian nursing home were more likely to be "no code" (i.e., CPR would not be initiated on cardiac arrest), while controlling for age, comorbidity, gender, and religion, whereas Chinese residents were more likely to be "full code" (i.e., CPR would be initiated on cardiac arrest). Authors attributed this difference to social values and cultural differences. Tulsy et al, on the other hand, found no relationship between ethnicity and the presence of a DNR order, even after adjustment for covariates and separate analyses for patients who died in the hospital vs those who were discharged from the hospital alive. Hopp and Duffy, in their survey of 454 whites and 86 blacks found that whites were significantly more likely than blacks to discuss treatment preferences before death, to complete a living will, and to designate a durable power of attorney for health care. The treatment decisions for whites were more likely to involve withholding or limiting treatment, whereas for blacks the treatment decisions were more likely to be based on the desire to provide all care possible in order to prolong life.

If the decision not to resuscitate a terminally ill patient seems to be a logical and appropriate step, why is it not done more often? A lack of awareness of the patient's wishes and a lack of communication between the patient and his physician seem to be the major impediments. Eliasson and colleagues reviewed the medical records of 88 patients in whom DNR orders were indicated but were not written. They found that the attending physicians' explanations for not writing DNR orders in these patients included the belief that the patient was not in
imminent danger of death (56%), the belief that the primary physician should discuss DNR issues (49%), and the lack of an appropriate opportunity to discuss DNR issues (43%). No physicians expressed concerns regarding the morality of DNR orders, discomfort about discussing end-of-life issues, or the threat of litigation.

There is great variability among physicians as to what constitutes futility, with 0 to 13% chance of success of treatment as the definition of futility.20 Whatever the exact definition, we know that in all patients there comes a stage when nothing works. Although the American Medical Association and other organizations have given assurances that physicians have a right to refuse futile treatment, the legal status of unilateral DNR is not clear.21 A Houston task force22 has suggested that physicians should not act unilaterally, must obtain a second opinion, and should provide the review body with detailed case information. It has been suggested that it is appropriate to write unilateral DNR orders after a fair review of each case following the Houston model.20 Whatever the approach to this issue, the cost should not be allowed to enter the equation when a decision is made to write a DNR order. The other end of the spectrum is a situation in which the physician may unilaterally override a DNR order. It has been suggested that physicians may believe that DNR orders do not apply to iatrogenic cardiac arrests and that patients do not consider the possibility of an iatrogenic cardiac arrest when they sign a DNR order. Also, physicians may feel obliged to intervene when an illness is iatrogenic, especially when it is a result of physician error.23

We do not have simple answers to the questions of life and death. Science may one day produce human clones, delay or even stop the process of aging, and conquer death; but do we really want that to happen? As a society we might be much happier if we learn to age gracefully, accept death as the natural life and death. Science may one day produce human physicians have a right to refuse futile treatment, the legal status of unilateral DNR is not clear.21 A Houston task force22 has suggested that physicians should not act unilaterally, must obtain a second opinion, and should provide the review body with detailed case information. It has been suggested that it is appropriate to write unilateral DNR orders after a fair review of each case following the Houston model.20 Whatever the approach to this issue, the cost should not be allowed to enter the equation when a decision is made to write a DNR order. The other end of the spectrum is a situation in which the physician may unilaterally override a DNR order. It has been suggested that physicians may believe that DNR orders do not apply to iatrogenic cardiac arrests and that patients do not consider the possibility of an iatrogenic cardiac arrest when they sign a DNR order. Also, physicians may feel obliged to intervene when an illness is iatrogenic, especially when it is a result of physician error.23

We do not have simple answers to the questions of life and death. Science may one day produce human clones, delay or even stop the process of aging, and conquer death; but do we really want that to happen? As a society we might be much happier if we learn to age gracefully, accept death as the natural end of life, and stop putting artificial barriers in the path of this river as it approaches the ocean.

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Tobacco Dependence
A Chronic Disease

Asthma is a chronic, possibly life-threatening disease for which effective treatments are continually studied and made available. It is difficult to imagine a chest physician seeing a patient for some other ailment, and knowing that person also has asthma, offering nothing beyond the admonition, “You need to control your asthma.” Yet, as pointed out by Anderson and colleagues in this issue of CHEST (see page 932), tobacco dependence is a chronic disease, can be life-threatening, and is a disease for which effective treatments are continually studied and made available. However, it is not at all difficult to imagine a chest physician seeing a patient, knowing that the person smokes, and offering nothing beyond the admonition, “You need to quit smoking.”

Many health-care providers have not routinely treated tobacco use as they do other chronic diseases. Fiore and colleagues report that in a population-based survey, <15% of smokers reported being offered assistance in quitting by their physicians. There are a number of understandable reasons for this, not the least of which is that many health-care providers have not considered tobacco dependence as a chronic disease. According to the clinical practice guideline,1 “A failure to appreciate the chronic nature of tobacco dependence may undercut clinicians’ motivation to treat tobacco use consistently.” In recognizing the chronicity of tobacco dependence, health-care providers have a better conceptual model for treatment of this problem.

The review of the updated guideline by Fiore and colleagues provides a succinct set of recommendations that, if followed, provide optimal, state-of-the-art treatment for patients who smoke. With a treatment as minimal as a 3- to 10-min counseling session, we can expect 16% of patients to quit; increasing the “dose” to include pharmacotherapy and more intensive behavioral counseling can lead to a near 30% quit rate. Fiore and colleagues offer guidance on how to decide the appropriate dose for a given patient. Not all patients want to—or feel ready to—quit at a given office visit. For those who aren’t ready, a minimal dose of advice along with a motivational message will be more appropriate than aggressive treatment. Also consistent with the chronic disease model, smokers who quit are subject to episodes of relapse, and the guideline advises clinicians to be prepared for this likelihood and provides recommendations for addressing relapse.1

At the time of publication of the updated guideline, the Executive Summary included the lament that, although the first guideline inspired much change, clinicians still too frequently fail to intervene with patients who smoke.1 Armed with the view of tobacco dependence as a chronic disorder and with the evidence-based recommendations of Fiore and colleagues, health-care providers should perceive fewer barriers to treating this problem, a problem that still affects more than one in five adults in this country. However, even if clinicians begin to treat tobacco dependence using a chronic disease model, one barrier remains: insurers are not adopting this view. The guideline specifically addresses this dilemma by including recommendations for health-care administrators, insurers, and purchasers that include the coverage of tobacco-dependence treatments (behavioral and pharmacologic) for all subscribers and reimbursing clinicians for delivery of effective treatment and including such interventions among defined clinical duties.1 This is not only a guideline recommendation, but a Healthy People 2010 objective: increase insurance coverage of evidence-based treatment for nicotine dependency to 100%.2

The guideline panel encouraged “a culture of health care in which failure to treat tobacco use... constitutes an inappropriate standard of care.”3 What should be the role of the American College of Chest Physicians and chest physicians in promoting this culture? The answer may lie in the literature on disseminating practice guidelines. As noted by Smith3 in an issue of CHEST, although evidence-based guidelines are intended to change behavior by providing definitive information on best practices, an information-dissemination approach is not sufficient to change provider behavior. An array of strategies to influence environmental factors and to change behavior must be employed to promote widespread guideline adoption.4

A method that has been relatively effective in changing behavior is the use of opinion leaders. Chest physicians can serve as opinion leaders in the area of treating smoking cessation as a chronic disease. The first task is to adopt the guideline recommendations. Make smoking status the new vital sign. The patient education committee of our college has set as a goal for all members to use smoking status as a vital sign. While the BP is being checked, the office assistance simply asks if the patient has ever smoked. If the patient has, then he

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