## 9. Conclusions and Possible Future Steps

## **Conclusions and Possible Future Steps**

Until passage of the Social Security Act Amendments of 1983 (Public Law 98-21), intensive care unit (ICU) expansion was able to proceed without major consideration of costs because of the favorable payment environment. Indeed, tightened section 223 limits on costs of routine hospital beds in 1979 and 1980 may have even stimulated ICU expansion. It would seem clear that Medicare's inpatient hospital prospective diagnosis-related group (DRG) payment system will cause hospital administrators and ICU directors to look differently at the costs of ICU care. Unfortunately, they will find no easy solutions to the cost problem, particularly if Medicare allows only relatively low rates of annual spending increases.

Under DRG payment, some savings may be generated by better organization and management of ICUs, perhaps by centralizing separate ICUs into larger, more general ICUs (212). Arguably, additional savings may be gained by substituting lower paid health personnel for nurses or physicians to provide certain ICU functions (162,212). There may be new efforts to find cost-saving technologies that can substitute for expensive ICU labor. One ICU, for example, has demonstrated a significantly decreased ICU length of stay, attributable in part to the use of computer-assisted decision algorithms (227).

In addition, it maybe possible in the near future to predict more accurately which monitored patients do not need to be in the ICU at all. Intermediate care units or other arrangements could be developed to care for these patients, probably, at a somewhat lower cost (141).

At the same time, however, it is now being recognized that some ICU patients are discharged prematurely from the ICU. One can argue that longer stays in the ICU for these patients would not only represent a more appropriate use of the ICU but also might even save the hospital money by reducing the costs of subsequently treating for these prematurely discharged patients (246).

Nevertheless, the fact remains that relatively few ICU patients are responsible for a substantial portion of ICU costs. This case study has attempted to demonstrate the clinical, moral, legal, and economic factors which currently make it difficult to decide not to treat even those patients who show little promise of benefiting from ICU care. The high-cost subgroup is spread among all ages, diagnostic groups, and disability classes (40). There are as yet no demographic identifiers or accepted general prognostic indicators which permit systematic exclusion of any of the high-cost group from ICU care. Public programs, private insurers, perhaps the public at large, but almost certainly hospital managers and providers, will face increasingly difficult decisions about who should be given ICU care and in what manner. The process of ICU decisionmaking will become even more important when economics may dictate curtailing or even denying care to seriously ill patients.

A number of steps might improve the environment for intensive care decisionmaking:

- Research on developing accurate predictors of survival for patients with acute and chronic illnesses could be expanded in order to permit better informed decisions based on the likelihood of short- and long-term survival. Since the results of outcome data will always be incomplete and subject to differing interpretations, especially in relation to an individual patient, hospitals might consider formalizing an institutional "prognosis committee" whose function would be to advise physicians, families, and patients on the likely survival with ICU care in individual situations. Such a committee or hospital function, perhaps utilizing a routinely updated national data base, obviously could also provide a similar function for non-ICU patients.
- The suitability of the current DRG method of payment for ICUs should be tested. If, in fact, the DRG scheme takes insufficient ac-

- count of severity of illness, it is likely that some hospitals and, consequently, some ICU patients may face a degree of rationing that Congress did not envision.
- The legal system, including legislators and the courts, may need to recognize the possible conflict between malpractice standards which assume quality of care that meets national expert criteria, and a decisionmaking environment in which resources may be severely limited. At the same time, it must be kept in mind that the threat of both malpractice suits and criminal prosecution may become an even more important protection against arbitrary or unfair denial and termination of ICU care.
- Health professionals who are involved in making decisions regarding critically ill patients might benefit from more education on medical ethics and relevant legal procedures and obligations. In recent years, the journal Critical Care Medicine, published by the Society of Critical Care Medicine, has included articles and editorials on specific ethical and legal issues. Likewise, new textbooks on critical care medicine (224) have devoted chapters to specific ethical and legal issues that frequently arise in the ICU. More formal education at the graduate and postgraduate level for all health professionals who work with critically ill patients might be considered.
- The actual decisionmaking process for critically ill patients may need greater attention.

At a time when the interests of the ICU patient, physician, and hospital were theoretically the same, i.e., under a full-cost reimbursement system, the need for formal rules and procedures for life and death decisions might not have been necessary. Even so, many hospitals found the need to establish formal procedures for "Do Not Resuscitate" orders. With a payment system that sets the interests of at least some very sick ICU patients against the immediate financial interests of the hospital, however, it may be necessary to impose additional formal protections on the decisionmaking process. Hospitals might explore formalizing decisionmaking committees or mandating second opinions to lessen the burden on individuals faced with excruciatingly difficult choices about terminating life-support. Hospitals could consider formally separating the ICU triage function from the direct patient care function, particularly with regard to the ICU Medical Director, in order to minimize potential conflicts of interest. More generally, society will need to decide how it wishes conflicts over decisions on terminating lifesupport to be resolved—in courts, through formal hospital committees such as ethics committees, through government-imposed utilization review procedures which can follow fixed rules and-regulations, or other, perhaps more decentralized, mechanisms.