of pneumococcal disease in a county jail in Houston, but with uncertain effect. An additional preventive measure of proven value in reducing pneumococcal pneumonia is annual vaccination against influenza.

The Pneumococcus, although no longer the "captain of the men of death," remains an important cause of morbidity and mortality in the United States and elsewhere. Further studies are needed to define the risk factors for acquiring pneumococcal infection in various settings, and to determine which measures are effective in preventing and terminating outbreaks. To that end, state health departments have been asked to notify the Respiratory Diseases Branch at the Centers for Disease Control of clusters of cases of pneumococcal disease in institutional environments.

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REFERENCES


Safety and Efficacy of Thrombolytic Therapy for Superior Vena Caval Syndrome

The report by Cray et al (see page 54) is an important contribution to the literature. The authors' observations that the SVC syndrome resulting from central venous catheterization responds to treatment in 73 percent of cases, and if treatment is instituted within five days from the onset of symptoms there is an 88 percent success rate, will serve as an important guide for future clinical judgment. However, one wonders why there is a low success rate in those suffering SVC syndrome without central venous catheterization? Could it be possible that the direct infusion of the lytic agent into the clot contributes that much to efficacy? Could it be that the etiology of thrombosis is entirely different, and that regardless of the technique of delivery of the lytic agent, success cannot be achieved in the majority of these patients? If extrinsic compression was the cause of the SVC syndrome in those developing spontaneous thrombosis, then perhaps successful recanalization cannot be expected.

While readers of this manuscript will intuitively believe that relief of the SVC syndrome is important, the authors failed to establish that point. They mentioned that only 16 of 326 patients received lytic therapy for SVC syndrome at their institution, representing 5 percent of the patients. This allowed an excellent opportunity for the authors to establish the natural history of SVC syndrome not treated with a lytic agent and thereby clearly illustrate short-term and long-term potential benefits. This was not done.

In previous publications, the direct catheter infusion of urokinase for axillo-subclavian vein thrombosis has been established, and has been shown to result in greater success than systemic infusion for SVC syndrome as reported by Olin et al. One wonders why a catheter was not placed in the SVC clot for intra-thrombus infusion in light of these data, and in light of this group's extensive experience with the regional delivery of thrombolytic agents.

The authors tabulated previous reports of lytic therapy for SVC syndrome which shows 100 percent success in every case reported to date. The authors state that the method of treatment was by direct catheter infusion, which differed from their treatment in the current report. Additional emphasis must be made that in general, therapeutic failures are not published as case reports and the tabulation of lytic therapy for SVC syndrome represents a highly selected patient population.

The report by Olin et al is the largest published series to date and draws our attention to important
Intermediate Care Units
Graded Care Options

Medical/respiratory intensive care has traditionally been an “all or none” phenomenon. Patients in acute respiratory failure, especially requiring mechanical ventilation, have generally been cared for in traditional intensive care units until the patient has been weaned from ventilatory support or succumbed to the illness. Improvements in the acute management of such patients and the increasing utilization of mechanical ventilation have increased the numbers of patients requiring mechanical respiratory support in acute care hospitals. Physicians have responded to the increasing numbers of patients competing for limited critical resources by rationing this limited resource. Concerns over bias and inequitable distribution provided by current practices of rationing have been supported by several studies. The significant costs incurred in caring for these patients have generally not been offset by prospective reimbursement programs. Economic considerations have, thus, introduced additional potential bias in resource distribution, creating ethically troublesome circumstances for physicians, health care administrators, and society.

Several alternative care approaches have been offered to patients with chronic ventilatory failure who do not require intensive respiratory monitoring and therapy. These have included prolonged mechanical ventilation on routine nursing floors and nursing homes, domiciliary mechanical ventilation, and specialized chronic ventilatory centers. These approaches have offered improved settings for care from the patient perspective and have proved to be effective strategies to reduce the cost of care without significant quality reduction.

Intermediate care units, frequently noted as “step-down” units, have provided reasonable alternatives to critical care units. These units have been developed in many hospitals, primarily to serve surgical and coronary care populations. These types of units adequately serve the needs of several populations, including patients who require monitoring and assessment for diagnostic purposes and/or nursing care more intensive than can be provided on regular nursing units. These units theoretically offer cost-effective strategies for the care of certain populations and provide an additional resource for managed patient movement in and out of full critical care settings. This “graded” approach to critical care service would appear to have significant theoretic advantages in the care of medical-respiratory patients, where full critical care admissions are unscheduled and episodic, yet lead to significant numbers of patients with chronic illness.

The noninvasive respiratory care unit, as initially described by Bone and Balk, serves as such a model for step-down respiratory care, with clinical and cost effectiveness as described by Eipper et al (see page 205). The utility of a medical intermediate care unit used as a monitoring area for high risk medical patients has previously been noted by Franklin and colleagues. A spectrum of progressive care capabilities, which is by no means a new concept, would allow the greatest flexibility in patient care decision making, as well as offering cost effective approaches to difficult allocation decisions. The principal financial impact of intermediate respiratory care units relates to diminished nurse staffing requirements. Replacement of invasive monitors with noninvasive technology does not necessarily spare capital expenditure costs. Noninvasive respiratory monitors may allow staff reductions as well as diminish complications associated with invasive monitoring, although the efficacy and cost-effectiveness of noninvasive approaches has not definitively been proven. The experience over the last three years at Henry Ford Hospital suggests that cost savings is greatest in the reduction of nursing staff, but is partially offset by the need for additional respiratory therapy staff. Restricting invasive monitoring provides additional cost saving, but change in monitoring devices does not necessarily reduce cost nor allow significant staffing reductions.

Care also must be taken to not overstate the effect of intermediate medical care. The utility of such units will only be definitively proven by a careful analysis of their effects on morbidity and mortality of a hospital’s entire inpatient population, with careful analysis of patient severity of illness and predicted mortality. In addition, data to identify patients at risk for deterioration to critical illness who would benefit from intensive care is available only for a few conditions. Without careful planning based upon scien-