Early Ambulation of Patients Requiring Ventilatory Assistance

To the Editor:

Many patients with respiratory failure require mechanical ventilation for weeks or months before they can breathe unassisted. If such patients are confined to bed or chair simply because they are tied to their respirators, they are needlessly predisposed to muscular and skeletal wasting, thromboembolism, decubitus ulcers, and to at least some degree of despair concerning their eventual rehabilitation.

As previously emphasized by others, a self-inflating bag, an oxygen tank, and a trained attendant are all that are required to ambulate a stable patient able to walk without support. However, respirator patients early in their course are usually quite weak, tire quickly, require support, have intravenous lines, and manifest tachypnea which may make coordinated bag compression difficult. For the past three years, we have found useful a homemade device easily assembled from commercially available parts that overcomes most of these problems (Fig 1). It incorporates a stable-wheeled “walker” with an armrest and seat, a respirator, an oxygen source, a pole for suspension of intravenous solutions, and a support for the respirator manifold at the level of the tracheostomy. It appears cumbersome but is, in reality, highly mobile and easily employed with one nurse in attendance.

Although the method utilized is not critical, the concept of early ambulation is clinically useful and rests on a sound physiologic basis. Patient acceptance has been excellent. It is our impression that by early ambulation, weaning has been facilitated and hastened, and the problems of prolonged bed and chair rest minimized.

J. Robert Burns, M.D., F.C.C.P.
and Frederick L. Jones, Jr., M.D., F.C.C.P.
Department of Thoracic Medicine
Geisinger Medical Center
Danville, Pa

The Implantable Starr-Edwards Pacemaker

QRS-Inhibited or QRS-Triggered?

To the Editor:

Everyone familiar with the historic developments made in the field of electrical stimulation is aware that with the rapid development of new kinds of units with varying sensing and pacing modes, terminology became a real problem. Various terms were used for the same function; and in some cases, different proprietary names were contrived for similar pacemakers.

Both physicians and manufacturers (or their representatives) have become involved in semantic arguments. Recently the Pacemaker Study Group of the “Implantable Cardiac Pacemaker Status Report and Resource Guidelines” proposed a nomenclature code designed to “obviate such confusion.”

Unfortunately, semantic difficulties cannot be resolved by decree or dialectics. For instance, the implantable Starr-Edwards model 8114 pulse generator has been classified as QRS-inhibited (or VVI in the new nomenclature code). When applied to a pacemaker, the labeling of “QRS-inhibited” implies that the pulse generator, on sensing a given portion of the QRS complex, will be recycled without discharging. In absence of rate hysteresis, an electrocardiogram recorded when the patient’s natural rate is faster than the pacemaker’s basic rate will not show a stimulus artifact. Yet, in this situation the