Clinician's Commentary on Devroey et al.¹

This study describes the expansion of cardiorespiratory physiotherapy (PT) services by one hospital in Belgium—from 8:00 a.m. to 5:00 p.m. Monday through Friday and 8:00 a.m. through 12:00 p.m. on weekends to providing round-the-clock coverage. The authors obviously see the value of chest PT practice, but is there evidence to support the added cost and staffing levels?

Before addressing this question, it is important to note that PT roles and scope of practice differ widely between North America and other countries around the world. In North America, there are respiratory therapists whose role is to manage mechanical ventilators, non-invasive ventilation, inhalation therapy, and airway suctioning; this frees up physiotherapists in Canada and the United States to focus on physical rehabilitation, early mobility, breathing exercises, and, if necessary, airway clearance techniques. Although physiotherapists are authorized to suction the airway, they are not the only health professionals who do so and as such, it is not considered a primary role, but rather one performed after or during a chest or mobility treatment. Chest PT or airway clearance techniques are not difficult to learn, and registered nurses often perform them when multiple sessions are needed when physiotherapists are not available. In the same way, family members and caregivers may also learn these techniques so that they can perform them on patients with chronic lung conditions at home such as cystic fibrosis.

For clinicians who actually perform these techniques proficiently, there is no denying the value of applying airway clearance techniques in certain situations; in the right circumstances, they have certainly spared some patients, on the verge of re-intubation, readmission to an intensive care unit (ICU) and another potentially protracted course of critical care. However, the literature on airway clearance techniques is not favourable. For example, Templeton and colleagues² found in their study that the first 50% of patients in their chest PT group took 4 days longer to wean off mechanical ventilation than control patients. It is interesting to note that all patients in this study were allowed “rescue PT” for sudden, sustained de-saturation as a result of mucus plugging. Perhaps the data would have been more valuable if the authors had reported the outcomes of the patients who had received rescue chest PT instead of the effect of routine or prophylactic chest PT. One may argue that these rescue events are in fact indicative of when chest PT is actually indicated.

Finally, the past decade has shown an increasing need for early mobility and rehabilitation rather than for chest PT. Work done by Herridge and colleagues^{3,4} has shown that previously high-functioning survivors of critical illness suffered from pro-

found weakness and disability that endured long after discharge. Other authors, such as Schweickert and colleagues,⁵ have shown that early mobility improves independent functional status and decreases hospital and ICU length of stay over controls.

The available evidence ought to compel physiotherapists to focus more on mobilization, which may also help mobilize secretions, rather than on engaging in routine chest PT or increasing staffing levels to accommodate around-the-clock chest PT alone. Devroey and colleagues¹ did not mention mobility practices at their site; this would have been a useful and interesting addition to the article.

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