Clinician's Commentary

What is the optimal physiotherapy care for patients undergoing routine cardiac surgery? In the absence of published practice guidelines, and in pursuit of the answer to this question, Overend et al. conducted a telephone survey of 18 hospitals across Canada in order to ascertain the standard practices of physiotherapists treating patients following cardiac surgery. This study provides an interesting snapshot of current physiotherapy practice patterns for adult patients undergoing routine coronary artery bypass graft (CABG) or valve surgery, which is useful information for clinicians practicing in cardiac surgery.

Despite much variability in perioperative physiotherapy care provided to patients following routine cardiac surgery, the most common practice is cardiorespiratory treatment consisting of deep breathing and coughing (DB&C), combined with, at minimum, sitting the patient up at the edge of the bed on postoperative day (POD) 1 or 2. These findings are not surprising: DB&C and early mobility are typically considered standard treatments following most surgeries and, clinically, are considered especially important for patients who have undergone cardiac surgery because of the specific respiratory dysfunctions created by the location of the incision (median sternotomy) and the nature of the surgery itself.¹

There remains some question, however, as to whether the respiratory dysfunction observed following uncomplicated cardiac surgery requires any physiotherapy treatment above and beyond the accepted practice of DB&C and early mobility, as this dysfunction is most often sub-clinical²⁻⁴ and does not often lead to significant postoperative complications.^{1,3,4} Overend et al. point out that there are studies to suggest that formal regimens of DB&C exercises are unnecessary following uncomplicated cardiac surgery. There is also good evidence that there is no benefit to adding incentive spirometry (IS)⁵ or sustained maximal inspiration (SMI)³ to routine postoperative care. These findings suggest that prophylactic cardiorespiratory physiotherapy is not indicated following uncomplicated cardiac surgery and that independent DB&C and early mobility alone should suffice. Yet IS and SMI continue to be incorporated into standard practice in a significant number of the Canadian hospitals surveyed. So it appears, as the authors suggest, that physiotherapists in Canada may be “overtreating” patients following routine cardiac surgery.

As professionals we are certainly aware of our responsibility to our patients and to our profession to ensure that our practice is current and evidence based. But

perhaps being aware of the research and incorporating the research into practice are two very different things. Let's be honest: It is much easier to stick with what you know has “worked” in the past. Overend et al. allude to the fact that clinicians seem reluctant to change their practice based on available evidence; and, in fact, identifying strategies to promote change in clinical practice based on research has been cited as the greatest challenge facing evidence-based practice.⁶

At a time when working in health care means continually having to do more with fewer resources, taking the time to review the literature regularly and initiate changes in practice is not easy. Further, being unaware of what “usual practice” is in similar circumstances is reported to be one of the factors contributing to a reluctance to change practice patterns and, interestingly, one of the greatest barriers to changing clinical practice.⁶ It may be that when we are uncertain about the current standard of practice, we choose, for the benefit of the patient, to err on the side of doing more rather than less.

In any case, the study by Overend et al. is particularly useful in that it allows clinicians to compare their current practice against that of others in Canada. Further, it offers an opportunity to reflect on current practices and to reassess how evidence-based one's practice really is. Certainly no clinician would deny their patients any treatment that would help or speed up recovery following surgery. However, where those treatments have been found to be unnecessary, there is a need to change our practice to improve effectiveness and efficiency, thereby allowing more time for patients who are not “routine” and can genuinely benefit from physiotherapy care. I am sure this is something that, as clinicians, we can all appreciate.

Perhaps patients could be screened perioperatively to determine whether or not physiotherapy services are required—acknowledging that there is some evidence to suggest that in the absence of significant clinical findings, cardiac surgery alone is not an indication for cardiorespiratory physiotherapy treatment. As Overend et al. point out, it appears that clinicians are already assessing patients and making decisions about the need for continued physiotherapy treatment; this is evident in the fact that treatment diminishes by POD-3. These results suggest that clinicians are acknowledging that given their limited resources, additional time spent with routine patients who are progressing as clinically expected is time taken away from those patients who legitimately require physiotherapy care.

Regardless, it appears that more research needs to

be done to determine the optimal perioperative physiotherapy practice for patients following uncomplicated cardiac surgery. However, this study is particularly useful in that it gets us one step closer by outlining “standard or common” physiotherapy practice following routine cardiac surgery and allows clinicians to compare their current practices with the practices of others across Canada. More importantly, it may help facilitate a change in practice by giving clinicians the opportunity to reflect on their practices and make changes consistent with effective and evidence-based physiotherapy.

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