

# Clinicians' Commentary on Ottensmeyer et al.<sup>1</sup>

Ottensmeyer and colleagues provide needed data on the provision of weekend physiotherapy (WPT) services in acute-care community hospitals across Canada.<sup>1</sup> Unfortunately, depending on where you live, the news may not be very good. Ottensmeyer and colleagues found that only 69% of such hospitals nationwide offer WPT, with a wide variation from 93% in British Columbia to 30% in Quebec.<sup>1</sup> These percentages are lower than those found in a recent survey of Canadian tertiary hospitals (97% of 36),<sup>2</sup> a difference that could easily be explained by the differing hospital types and the correspondingly different (i.e., lower-acuity) patient populations, as hospitals with a high proportion of acute-care beds were more likely to supply WPT.<sup>1</sup> However, since the authors excluded from their study hospitals that might not be expected to offer WPT (psychiatric hospitals, long-term care facilities, small hospitals with <100 beds, etc.), the low percentage is cause for concern.

Physiotherapists who work in acute care know that their work helps people get better sooner, decreasing suffering while at the same time decreasing length of stay, and thus saving the health care system untold millions of dollars across Canada. Sadly, evidence supporting the value of WPT is still lacking.<sup>1,3,4</sup> There are things we do know, however, such as that bed rest has adverse effects on nearly the whole body,<sup>5</sup> including increased muscle atrophy, decreased cardiopulmonary function, and a decreased level of self-care.<sup>6,7</sup> Even in healthy people, bed rest can induce increased insulin resistance and microvascular dysfunction.<sup>8</sup> Early mobilization of acutely ill patients has been shown to improve physical function, develop a sense of well-being, shorten duration of delirium, and decrease postoperative respiratory complications.<sup>9–12</sup> For these reasons, early mobilization is advocated across the acute-care continuum,<sup>13</sup> and most mobilization guidelines recommend that patients be up multiple times during the day, which requires more caregivers to help mobilize. Skilled physiotherapists are more effective in getting patients to ambulate than nursing staff following clinical pathways in specialized care units.<sup>12</sup>

Yet despite all the needs and increasingly overflowing hospitals, many acute-care sites treat physiotherapy as something confined to standard weekday hours and deserving only a skeleton crew on weekends. Why, if our work is so important, should we keep only bankers' hours, with limited or no weekend services, when the rest of the hospital runs 24/7? Indeed, data from Ottensmeyer and colleagues reveal that 70% of hospitals in Quebec and 30% nationwide keep bankers' hours.<sup>1</sup> Even banks don't do this anymore. The median number of physiotherapists working on weekends is one per day, and the number is significantly lower on holidays. A similar trend in staffing levels is reported for physiotherapy assistants (PTAs), except that there is minimal (median = 0) holiday coverage. A median of 14.5 patients per day (range 13.5 to 14.5 patients; difference is reported to be non-significant) were seen on weekends and holidays.<sup>1</sup> Physiotherapists who have worked Saturdays will likely agree that their service is far from overstaffed. But staffing levels are even lower on holidays, with fewer physiotherapists and PTAs working. As a result, assessments may be less detailed, shortcuts taken, and treatment programmes brief. At what point is patient and/or caregiver safety compromised? Are efficacious

treatments being provided on weekends and holidays, or are we just "making do"? To provide safe and proper care for patients, some disciplines use minimum staff-to-patient ratios; for example, at one Fraser Health intensive-care unit during the day shift, there is one registered nurse (RN) per one or two patients and one respiratory therapist per five or six patients; on a medical or surgical ward, one RN per four to five patients. Perhaps we need to establish such benchmarks for our profession for patient safety.

As Ottensmeyer and colleagues note, some common referral criteria are used to identify patients requiring WPT where it is available.<sup>1</sup> These criteria (acute cardiorespiratory, new referrals, etc.) appear to be site specific and are likely based on years of clinical experience and hospital policy, rather than on the research base. At sites where WPT is not offered, one must wonder what effects the interruption of physiotherapy treatments has on patients following joint replacement, major abdominal surgery, or thoracic surgery, or on cardiorespiratory patients and other patients generally considered to require frequent physiotherapy intervention for best outcomes.<sup>3,4,14–16</sup> What about patients who require mobilization but do not meet any specific WPT criteria? Often we hear hospital staff and family members alike lamenting that their patients or loved ones have lost ground over the weekend and now need a couple of extra days to return to the functional level they had attained the previous Friday. Would not a consistent 7 days/week mobilization programme better serve this population and decrease length of stay?

Our ageing society ensures a steady stream of elderly patients with multiple comorbidities who would benefit from early physiotherapy intervention. Postoperative hip-fracture patients, for example, have an average length of stay many times that of patients following elective hip replacements, and benefit from early and continual mobilization.<sup>16</sup> Surgery schedules also play a role. For example, at our hospital we often have elective joint surgeries on Friday afternoons and non-elective surgeries (i.e., fractures or emergency abdominal surgery) over the weekend. At hospitals that offer no WPT, or Saturday coverage only, it seems likely that these patients might be missed or receive sub-optimal care. The availability of WPT is required to ensure early mobilization. And what of new referrals and patients requiring physiotherapy for discharge planning—must these patients wait until Monday to be seen when WPT is not available? Or is it possible that other rehabilitation professionals complete our therapies and assessments for us on weekends? Could other health care providers provide treatments such as initiating early safe mobilizations, turning intubated acute lung injury patients to prone lying position, ambulating non-weight-bearing postoperative hip-fracture patients, providing neurological rehabilitation for acute stroke, and treating patients who were just starting to improve but considered too "heavy" to be seen over the weekend? It seems likely that these patients would benefit from treatment by physiotherapists on weekends and holidays, but that this treatment might be inadequate because of limited staffing.

Physiotherapists are passionate people. We are passionate about our profession, about having a healthy lifestyle, and particularly about the care we give our clients. If we truly believe that

our care is important from Monday to Friday, then why would we not consider it just as important on weekends? Why do we not push harder for WPT services? We routinely advocate for our patients, but why do we not advocate more for our own profession? By advocating for better PT coverage, we are advocating for better patient care. Is it that we feel we will be turned down because budgets are too tight, or that advocating “for ourselves” is improper, or that most of us don’t want to work weekends and feel that finding staff to do so would be too difficult? Solutions exist to all these problems; for example, a few acute-care sites at Fraser Health now have 4 days on / 4 days off (10 hrs/day) shifts that both allow for consistent WPT and have proved very popular from a recruitment perspective. These shifts offer an attractive option to the “day off in lieu” method of staffing WPT, which Ottensmeyer and colleagues note was the norm in their study sample<sup>1</sup> but which has the effect of decreasing week-day physiotherapy coverage.

What we already know is that early mobilization in acute care is beneficial. Mobilization needs to be completed more than once a day for patients who are not on strict bed rest, from the critically ill to the frail elderly, across the acute-care continuum. Patients deemed unstable, in particular, require a skilled physiotherapist to initiate and progress the mobilization process. Ottensmeyer and colleagues have supplied some needed details on the current situation with respect to WPT coverage in acute-care community hospitals across Canada, but, as is often the case, there is still much work to be done, including well-designed, large-scale studies on the efficacy of weekend and acute-care physiotherapy in general; appropriate staff-to-patient ratios; and research-based vs. experience-based weekend referral criteria.

*Frank Chung, BScPT, MSc  
Senior Physiotherapist, Burnaby Hospital  
Fraser Health Authority  
Burnaby, BC*

*Dan Mueller, BScPT, MScPT  
Physiotherapist, Burnaby Hospital  
Fraser Health Authority  
Burnaby, BC*

## REFERENCES

- Ottensmeyer CA, Chatta S, Jayawardena S, et al. Weekend physiotherapy practice in community hospitals in Canada. *Physiother Can.* 2012;64(2):178–187. <http://dx.doi.org/10.3138/ptc.2011-19-CC>
- Campbell L, Bunston R, Colangelo S, et al. The provision of weekend physiotherapy services in tertiary-care hospitals in Canada. *Physiother Can.* 2010;62(4):347–54. <http://dx.doi.org/10.3138/physio.62.4.347>. Medline:21886374
- Holden MK, Daniele CA. Comparison of seven- and five-day physical therapy coverage in patients with acute orthopedic disorders. *Phys Ther.* 1987;67(8):1240–6. Medline:3112811
- Lang CE. Comparison of 6- and 7-day physical therapy coverage on length of stay and discharge outcome for individuals with total hip and knee arthroplasty. *J Orthop Sports Phys Ther.* 1998;28(1):15–22. Medline:9653686
- Fortney SM, Schneider VS, Greenleaf JE. The physiology of bed rest. In: Fregly MJ, Blatteis CM, editors. *Handbook of physiology*. New York: Oxford University Press; 1996. p. 889–939.
- Berg HE, Larsson L, Tesch PA. Lower limb skeletal muscle function after 6 wk of bed rest. *J Appl Physiol.* 1997;82(1):182–8. Medline:9029214
- Stein TP, Wade CE. Metabolic consequences of muscle disuse atrophy. *J Nutr.* 2005;135(7):1824S–8S. Medline:15987873
- Hamburg NM, McMackin CJ, Huang AL, et al. Physical inactivity rapidly induces insulin resistance and microvascular dysfunction in healthy volunteers. *Arterioscler Thromb Vasc Biol.* 2007;27(12):2650–6. <http://dx.doi.org/10.1161/ATVBAHA.107.153288>. Medline:17932315
- Bailey P, Thomsen GE, Spuhler VJ, et al. Early activity is feasible and safe in respiratory failure patients. *Crit Care Med.* 2007;35(1):139–45. <http://dx.doi.org/10.1097/01.CCM.0000251130.69568.87>. Medline:17133183
- Morris PE, Goad A, Thompson C, et al. Early intensive care unit mobility therapy in the treatment of acute respiratory failure. *Crit Care Med.* 2008;36(8):2238–43. <http://dx.doi.org/10.1097/CCM.0b013e318180b90e>. Medline:18596631
- Schweickert WD, Pohlman MC, Pohlman AS, et al. Early physical and occupational therapy in mechanically ventilated, critically ill patients: a randomised controlled trial. *Lancet.* 2009;373(9678):1874–82. [http://dx.doi.org/10.1016/S0140-6736\(09\)60658-9](http://dx.doi.org/10.1016/S0140-6736(09)60658-9). Medline:19446324
- Reeve JC, Nicol K, Stiller K, et al. Does physiotherapy reduce the incidence of postoperative pulmonary complications following pulmonary resection via open thoracotomy? a preliminary randomised single-blind clinical trial. *Eur J Cardiothorac Surg.* 2010;37(5):1158–66. <http://dx.doi.org/10.1016/j.ejcts.2009.12.011>. Medline:20138778
- SAFEMOB Working Group. SAFEMOB project [Internet]. Vancouver: University of British Columbia; n.d. [cited 2011 Dec 21]. Available from: [http://www.pt.med.ubc.ca/research/Physical\\_Therapy\\_Knowledge\\_Broker/Projects/SAFEMOB\\_Project.htm](http://www.pt.med.ubc.ca/research/Physical_Therapy_Knowledge_Broker/Projects/SAFEMOB_Project.htm)
- Fagevik Olsén M, Hahn I, Nordgren S, et al. Randomized controlled trial of prophylactic chest physiotherapy in major abdominal surgery. *Br J Surg.* 1997;84(11):1535–8. <http://dx.doi.org/10.1002/bjs.1800841111>. Medline:9393272
- Hughes K, Kuffner L, Dean B. Effect of weekend physical therapy treatment on postoperative length of stay following total hip and total knee arthroplasty. *Physiother Can.* 1993;45(4):245–9. Medline:10130908
- Pendleton AM, Cannada LK, Guerrero-Bejarano M. Factors affecting length of stay after isolated femoral shaft fractures. *J Trauma.* 2007;62(3):697–700. <http://dx.doi.org/10.1097/01.ta.0000197656.82550.39>. Medline:17414350

DOI:10.3138/ptc.2011-19-cc