



Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active.

See Article page XXX.

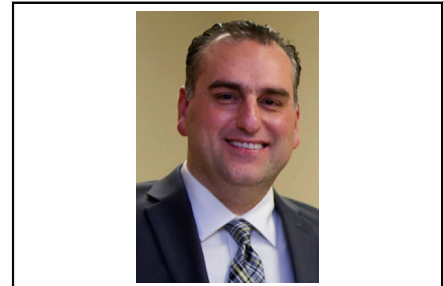
## Commentary: House calls, phone calls, or FaceTime! Postdischarge outcomes are improved by education and follow-up

Harmik J. Soukiasian, MD, FACS

The issue of postdischarge outcomes in patients undergoing thoracic surgery is an important topic that garnered even more attention after The Hospital Readmissions Reduction Program in 2012 government standards were set in place regarding readmission rates and linking payment to the quality of hospital care and reducing payments for excess readmissions.<sup>1</sup>

In this article, the authors evaluate the impact of an in-house program they developed, Integrated Comprehensive Care (ICC; integrated patient-centered, hospital-based multidisciplinary community program) on postdischarge outcomes in their patients undergoing thoracic surgery compared with their previous routine care.<sup>2</sup> This program is composed of a nurse coordinator, 12 nurses with thoracic specialty training as well as 10 physiotherapists, 4 occupational therapists, 10 personal support workers, 3 dietitians, 2 speech language pathologists, and 1 social worker, in addition to a 24-hour hotline for patients to contact an ICC nurse with thoracic training who can provide education, support, or further medical guidance for the patients when necessary. The program is associated with a cost of approximately \$175,000. Although it would be wonderful to devote these kinds of resources to the outpatient follow-up of postoperative patients, the cost and number of people who make up this team is rather large and may not be feasibly reproducible across most institutions.

A study published in 2016 used a simple 8-item preadmission questionnaire (which included patient self-reported



Harmik J. Soukiasian, MD, FACS

### CENTRAL MESSAGE

Whether it is in person or via telehealth, postdischarge education and follow-up are essential in improving length of stay as well as postoperative outcomes and readmissions.

health) as a predictive early discharge risk assessment tool.<sup>3</sup> The authors found this questionnaire to be predictive of readmission and length of stay for elective cases. As such, the use of a questionnaire in advance of elective admissions could help in resource allocation for discharge planning, such as the need for home health or telehealth follow-ups. In addition, studies have demonstrated that telephone follow-up can help with postdischarge outcomes and has been shown to result in fewer hospital readmissions and emergency department visits for patients receiving these telehealth and telephone interventions, led by advanced practice nurses.<sup>4</sup> These sort of telehealth options may be more feasible and more easily implemented across institutions as compared with a program requiring a lot of human resources.

The authors have performed extensive propensity matching; however, it is not always possible to eliminate all confounders. For example, despite propensity score matching, the minimally invasive surgery (MIS) rate is 42.1% in the ICC group versus 30.7% in controls, and the pneumonectomy rate is 1.9% in ICC versus 4.4% in control. In addition, within the control group, there were twice the number of open cases versus MIS cases. This study combines both thoracotomy and MIS into one for outcomes. It is unknown whether the MIS fraction of the total is contributing to the improved outcomes or is it the intervention of the ICC program itself. One may consider, is it possible that the shorter length of stay in ICC is related to the increased MIS approach and its associated ERAS (ie, Enhanced Recovery After Surgery) implications of improved outcomes<sup>5</sup>?

From the Division of Thoracic Surgery, Department of Surgery, Cedars-Sinai Medical Center, Los Angeles, Calif.

Disclosures: Dr Soukiasian is a speaker for Medtronic and proctor for Intuitive Surgery. The *Journal* policy requires editors and reviewers to disclose conflicts of interest and to decline handling or reviewing manuscripts for which they may have a conflict of interest. The editors and reviewers of this article have no conflicts of interest.

Received for publication May 20, 2020; accepted for publication May 21, 2020.

Address for reprints: Harmik J. Soukiasian, MD, FACS, Department of Surgery, Cedars-Sinai Health System, 8631 W 3rd St, Suite # 240 East, Los Angeles, CA 90048 (E-mail: [Harmik.Soukiasian@cshs.org](mailto:Harmik.Soukiasian@cshs.org)).

J Thorac Cardiovasc Surg 2020; ■:1-2

0022-5223/\$36.00

Copyright © 2020 by The American Association for Thoracic Surgery

<https://doi.org/10.1016/j.jtcvs.2020.05.090>

In this current state of coronavirus disease 2019 (COVID-19) and the increased adoption of telemedicine and telehealth, the findings of this study as well as other similar postoperative outcome-improvement studies may affect future practices of surgical providers who decide to implement these suggestions, but via virtual visits either by video or phone, as has been demonstrated to be effective by Antonoff and colleagues,<sup>6</sup> rather than having a physical visit at home by a nurse.

I find this study shows the importance of a team approach, with focus on coordinated care postdischarge, to help reduce adverse outcomes and readmissions. It provides a good model for programs looking to incorporate postdischarge care and helps reaffirm the importance of the team approach and follow-up as well as access to resources by patients postdischarge.

## References

1. Centers for Medicare & Medicaid Services. The Hospital Readmissions Reduction Program (HRRP). Available at: <https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/AcuteInpatientPPS/Readmissions-Reduction-Program>. Accessed May 18, 2020.
2. Ahmadi N, Mbuagbaw L, Finley C, et al. Impact of the integrated comprehensive care program post thoracic surgery: a propensity score-matched study. *J Thorac Cardiovasc Surg*. 2020 [Epub ahead of print].
3. Ohta B, Mola A, Rosenfeld P, Ford S. Early discharge planning and improved care transitions: pre-admission assessment for readmission risk in an elective orthopedic and cardiovascular surgical population. *Int J Integr Care*. 2016;16:10.
4. Kleinpell M, Avital B, Catrambone CD, Johnson TJ, Fogg K, Thompson NT. Randomized trial of a discharge planning and telehealth intervention for patients aged 65 and older after coronary artery bypass surgery. *Int J Clin Cardiol*. 2015;2:4.
5. Batchelor TJP, Rasburn NJ, Abdelnour-Berchtold E, Brunelli A, Cerfolio RJ, Gonzalez M, et al. Guidelines for enhanced recovery after lung surgery: recommendations of the enhanced recovery after surgery (ERAS®) Society and the European Society of Thoracic Surgeons (ESTS). *Eur J Cardiothorac Surg*. 2019;55:91-115.
6. Antonoff MB, Ragalie W, Correa AN, Spicer JD, Sepesi B, Roth JA, et al. Results of post-discharge nursing telephone assessments: persistent symptoms common among pulmonary resection patients. *Ann Thorac Surg*. 2016;102:276-81.

**000 Commentary: House calls, phone calls, or FaceTime! Postdischarge outcomes are improved by education and follow-up**

*Harmik J. Soukiasian, MD, FACS, Los Angeles, Calif*

Whether it is in person or via telehealth, postdischarge education and follow-up are essential in improving length of stay as well as postoperative outcomes and readmissions.