Acute care at home lowered costs, readmissions compared to standard inpatient care

ACP Hospitalist Weekly Staff

Patients randomized to a hospital-at-home program had lower costs and readmissions than similar patients treated with usual care, a recent study found.

The trial included 91 patients <u>admitted from the EDs of an academic medical center</u> (<u>Brigham and Women's Hospital</u>) and a community hospital (<u>Brigham and Women's Faulkner Hospital</u>), both in Boston, and then randomized to usual care or at-home <u>care</u>. The at-home program included at least one daily visit from an attending general internist (mostly hospitalists) and two daily visits from a registered nurse. Patients could also receive visits from home health, social work, and physical or occupational therapy, and selected specialists could be consulted by telemedicine. Temperature, heart rate, respiratory rate, telemetry, and movement were continuously monitored. Patients could contact a physician 24 hours a day. Results were published by *Annals of Internal Medicine* on Dec. 17.

Forty-three patients received home care, and 48 controls underwent usual hospital care. The adjusted mean cost of the acute care episode (not including physician labor) was 38% (95% CI, 24% to 49%) lower for home patients than control patients. Compared with usual care patients, home patients had fewer lab orders (median per admission, 3 vs. 15), imaging studies (median, 14% vs. 44%), and consultations (median, 2% vs. 31%). Patients at home spent a smaller proportion of the day sedentary (median, 12% vs. 23%) or lying down (median, 18% vs. 55%), and their 30-day readmission rate was lower (7% vs. 23%).

The reduction in readmissions is a particularly significant finding, the study authors said. They suggested this might be due to discharge planning being more effective when patients are already home or to less development of posthospital syndrome. However, in contrast to some other studies of home hospital care, this trial found no difference in decline in functional status between groups. The lack of effect on delirium and length of stay also differed from previous research, the authors noted.

Limitations of the study include that only 37% of eligible patients enrolled and that five physicians provided all the care, potentially limiting generalizability. Study patients were also specifically selected for low risk of clinical deterioration. The study was stopped early so that the intervention could be rolled out more broadly, but the authors called for additional research to identify the optimal patient populations, technological tools, and workflows for this model of care.

"Reimagining the best place to care for selected acutely ill adults holds enormous potential," they wrote. "If scaled, home hospital teams could transform how acute care is delivered in the United States, with potential improvements in cost, health care use, and readmissions."

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An accompanying editorial noted that inclusion of physician labor costs would attenuate the cost savings from the program and that a major barrier to broader implementation is the absence of a payment model. The <u>editorial noted that freeing up hospital beds for patients with more complex conditions by treating others at home</u> would provide benefits to society.

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