

not change under the bundled-payment and shared-savings programs. Nevertheless, physician groups and hospitals will increasingly establish preferred networks of post-acute care providers. Although they cannot require patients to use these providers, they may be able to make a convincing case based on the quality, service level, and continuity of care that a strong partnership can offer.

Hospitals can take other steps to reduce post-acute care spending under a bundled-payment system. Those with extra bed capacity can keep some Medicare patients in the hospital longer and discharge them to home health care rather than a nursing home or rehabilitation facility; the extra cost of extending a hospital stay by an additional day or two is far less than the average cost of a nursing home admission. According to one study involving 12,000 patients, the incremental cost incurred on the last full day of hospitalization was just 2.4% of the average total cost per admission.<sup>5</sup>

Hospitals and physicians have

considerable influence over patients' choices of post-acute care settings, and they will increasingly exert that influence under bundled-payment programs. Post-acute care providers need to make a compelling case for their value, and those that establish preferred relationships with major hospitals and physician groups will generate additional volume and thus be able to maintain revenue levels as they shorten lengths of stay.

These changes will, however, create considerable financial stress for post-acute care providers that lack preferred arrangements. Most post-acute care providers rely on Medicare payments to cross-subsidize care for Medicaid beneficiaries. Although the trends discussed above will generally be good for Medicare patients, they will draw resources away from nonpreferred providers. For nursing homes in particular, this will diminish their ability to adequately care for long-term residents for whom Medicaid is the primary source of payment.

Medicare payment reform will eventually shake up the world of post-acute care. Policymakers

should track the effects of these changes on patients, particularly Medicaid patients, and be prepared to intervene to ensure that the evolving system is capable of providing all older Americans and those requiring long-term support services with needed care.

Disclosure forms provided by the author are available with the full text of this article at [NEJM.org](http://NEJM.org).

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DOI: 10.1056/NEJMp1315607

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## The Hospital-Dependent Patient

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Approximately 20% of Medicare patients who have been hospitalized are readmitted within 30 days,<sup>1</sup> with substantial implications for outcomes and costs of care. Many reasons have been identified, including poor transitions from the hospital setting, lack of medication reconciliation, inadequate access to medical ser-

vices after discharge (e.g., timely postdischarge appointments with primary care physicians and specialists), and lack of accountability regarding which clinician is responsible after discharge.<sup>2</sup> The problem has been conceptualized as a failure of the health care system to fulfill its responsibility to provide comprehensive,

coordinated, and continuous care. Accordingly, the Centers for Medicare and Medicaid Services began to invoke penalties for readmissions of patients who have been discharged after hospitalizations for selected diagnoses. Hospitals and health systems are responding with innovations, such as care coordinators, post-

discharge pharmacists, care-transition coaches, and after-hours clinics. Although these efforts aimed at system-level problems do reduce the rate of preventable readmissions, there remains another more intractable cause of readmissions — hospital-dependent patients.

Hospital-dependent patients differ from those with chronic critical illness, many of whom require ventilators to sustain life,<sup>3</sup> in that they may be precariously and transiently compensated while hospitalized. They are often comfortable and may have an acceptable quality of life (e.g., interactions with family and friends) in the hospital when supported and comforted by high nurse-to-patient ratios, available monitoring and diagnostic capabilities, and on-site physicians and therapists who can respond quickly to changes in their condition. Yet they are unable to make it outside the hospital setting when the response is not quick enough or the necessary treatments are not available. Such patients are usually old, almost always have multiple chronic conditions, and have minimal physiological reserve to compensate for acute stress or injury. They develop pulmonary edema, flares of chronic obstructive pulmonary disease, orthostatic hypotension, myocardial ischemia, acute kidney injury, fevers, and sudden delirium and may experience falls, often without identifiable precipitants.

Usually, hospital-dependent patients are not recognizable as such at the time of the first admission. During almost all index admissions, the patient, family members, and clinicians assume that

the patient will be restored to usual health. This optimism is generally justified, since none of the many prognostic indicators are accurate enough to predict the trajectory of an individual patient.

Hospital-dependent patients are readmitted not because of inadequate hospital discharge, care transitions, or post-hospital care, but because their medical problems cannot be managed outside the hospital. The amount of med-

Hospital-dependent patients tend to follow a course of readmissions with progressive deterioration in functional status and loss of resilience over a period of months to years. Usually, each rehospitalization finds them worse than when they were discharged a few weeks (or days) earlier, and treatments become less effective. The final period of life is often characterized by a series of crises, apprehension,

***The phenomenon of the hospital-dependent patient has not been studied systematically. Little is known about the prevalence of hospital-dependent patients, the percentage of readmissions that they account for, and whether they cluster at specific types of hospitals.***

ical and instrumental support that can be mounted is simply not enough. It is tempting to conclude that these patients are discharged to the wrong location and that they should be sent to skilled nursing facilities (SNFs), but most SNFs cannot or do not provide the needed level of treatment and support for them, and the readmission rates from SNFs are similar to those from home.<sup>4</sup>

These patients are often relieved to be back in the hospital because they feel more secure than they do at home or in nursing facilities. Many have established relationships with hospital staff and clinicians who remember them from prior admissions, and these familiar faces provide reassurance.

and discomfort until a decision to switch to hospice care is made or the patient dies in the hospital despite the fact that “everything” was done.

In many ways, the existence of hospital-dependent patients is a direct product of the successes and advances of medicine. During our training in the 1970s and 1980s, such patients died quickly. There was little we could offer once their conditions progressed to end-stage. With the advance of technology and new medications, such patients now survive longer; acute decompensations can be corrected with acute care interventions.

The phenomenon of the hospital-dependent patient has not been studied systematically, even

Characteristics of Patients Who Are Readmitted to Hospitals.*			
Characteristic	Hospital-Dependent Patients	Patients with Failed Transitions	Patients with Chronic Critical Illness
Continuous need for life-sustaining equipment	-	-	+
Precipitous flares	+	+/-	+/-
Multiple chronic conditions	+	+/-	+
Decreased physiological reserve	+	+/-	+/-
Need for close monitoring by nursing staff	+	-	+/-
Need for immediate medical response	+	-	+/-

\* A plus sign denotes usually present, a plus-minus sign sometimes present, and a minus sign usually absent.

though most clinicians will recognize patients who meet the profile (see table). Little is known about the prevalence of hospital-dependent patients, the percentage of readmissions that they account for, and whether they cluster at specific types of hospitals. Although such patients have existed for many years, they have assumed increasing importance in the current frenzy over hospital readmissions. These patients' readmissions are counted in readmission rates, and their cases may erroneously be considered to represent failures of the transition process. However, the underlying causes of these readmissions are not failed transitions and the approaches to their management must be tailored accordingly.

A necessary first step is ensuring that treatment in the hospital is commensurate with hospital-dependent patients' goals and preferences. Clinicians may mistakenly assume that continued acute care is what patients want. Conversely, some of these patients may be unaware that hospice care is available. Therefore, it is crucial to discuss the

goals of care. Nevertheless, after informed discussion, there remain many people who opt for continued acute care. Although these patients may be in the last months of life, they simply are not ready to make the switch to an end-of-life approach to their care. They want to live, and they believe that they can maintain an acceptable quality of life. Ironically, while they remain in the hospital, they may be able to do so.

Beyond addressing hospital-dependent patients on a case-by-case basis, there must be a more systematic approach. Medicine has yet to acknowledge the ethical and practical predicament of having created a population of incurable, fragile, but not yet terminally ill patients without concurrently developing a health care system that can meet their needs. By default, frequent, unplanned readmissions to the acute care hospital have become the fail-safe backup.

Developing appropriate and cost-effective approaches for patients who have complex conditions and whose goals of care require continuous or frequent

hospital-level support will not be easy. The existing venues for providing post-hospital care — home health services, SNFs, long-term acute care facilities, and “hospital at home”<sup>5</sup> — do not have the capability or capacity to care for these patients, and it is unlikely that they could easily gear up to do so. Health care systems need to recognize this unmet need and begin planning ways of providing this level of care as well and as efficiently as possible.

With each new lifesaving advance, some of the lives saved will remain dependent on an ongoing acute level of care. For these patients, the systemic “continuity of care” fixes that assume that patients can return to the community with existing resources will not work. Alternative long-term acute care solutions will be necessary. We must recognize that the cost of providing this care outside of the hospital may approach that of care provided in the hospital. If we are to continue developing lifesaving interventions for the most advanced illnesses, this is a cost we must be willing to bear.

Disclosure forms provided by the authors are available with the full text of this article at NEJM.org.

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DOI: 10.1056/NEJMp1315568

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