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## The Business of Better End-of-Life-Care

**A startup says it can tell which patients will die in the next year and lower their medical costs by providing palliative care in their homes**

By Melinda Beck, Dec. 2, 2016

<http://www.wsj.com/articles/can-a-death-predicting-algorithm-improve-care-1480702261>

**Health-care experts** often lament that one-quarter of all Medicare spending—\$150 billion annually—goes to treating patients in their last year of life. But identifying those patients in advance and cutting back on futile care has been difficult. Can an algorithm help?

A startup called Aspire Health says that it can predict which patients are likely to die in the next year and reduce their medical bills substantially by offering them palliative care at home, keeping them comfortable while avoiding costly ER visits and hospital stays.

“We can tell which patients will die in one week, six weeks or one year,” says former Senate Majority Leader William Frist, a transplant surgeon who co-founded Aspire. “We can say to health plans, ‘How much are these patients costing you? We can care for them for less, and have higher patient satisfaction rates too.’”

The Nashville-based company, which recently won \$32 million in funding from GV (formerly called Google Ventures), has managed the care of more than 20,000 Medicare Advantage patients in 19 states in exchange for a monthly fee. It estimates that it can save health plans \$8,000 to \$12,000 per patient.

Palliative care focuses on easing symptoms such as pain and shortness of breath that are often overlooked amid aggressive efforts to save seriously ill patients. Unlike hospice, patients receiving palliative care aren’t required to forgo potentially curative treatments like chemotherapy. But many do, especially if the regimens are unpleasant and unlikely to buy much time.

Hospitals that offer in-house palliative-care programs find that they save an average of \$7,000 per patient, according to the National Palliative Care Research Center. The handful of hospitals that provide palliative care in patients' homes can save even more—as much as \$2,000 a month in one study—by preventing return trips to the hospital.

Many palliative-care experts say that the need for such services is so great that they have no problem with a for-profit business model built around predicting patient's deaths, as long as patients are not pressured to forego care.

Aspire “is filling a huge gap between hospitals and hospice. We need the mainstream health-care systems to step up and do the same thing,” says Diane E. Meier, director of the Center to Advance Palliative Care at the Ichan School of Medicine at New York's Mount Sinai Health System.

To identify target patients, Aspire's algorithm sorts through medical claims, looking for diagnoses such as congestive heart failure or late-stage cancer or for a pattern of frequent hospitalizations. Its clinicians also consult with patients' primary care physicians to see if palliative care would be appropriate.

Medical ethicist Arthur Caplan of New York University says that “a private entity snooping around” in patient records and consulting their doctors without prior consent seems like a violation of privacy. Aspire says that working with health plans to coordinate patient care is an approved use of such data under Medicare rules.

Aspire representatives don't mention life expectancy or even use the term “palliative care” when they invite patients to enroll. “We help patients understand that they are sick and getting sicker, and we describe what we do, rather than put a label on it,” says the company's CEO, Brad Smith. That includes a complete in-home assessment of their physical, emotional and spiritual needs, and then regular visits from nurses and social workers as well as a nurse practitioner on call 24/7—all at no cost to patients.

About 15% of those approached decline because they have home-care already or don't think they need it. Many of those who do enroll are aware of their prognosis. “At their initial assessment,

the first thing we say is, ‘Tell us about your illness,’ ” says David Thimons, Aspire’s lead physician in the Pittsburgh area. “Sometimes they say, ‘I’ve got about four months to live—don’t tell my kids.’”

A key part of the program is discussing patients’ individual “goals of care,” including what treatments they want and don’t want. “We emphasize that not wanting to go to the hospital anymore doesn’t mean you’re giving up,” says Tiffany Lunsford, a nurse practitioner and clinical director with Aspire. “And if they do want to want to go to the hospital, we go.”

One 64-year-old patient she cared for last spring had stage IV lung cancer, as well as multiple sclerosis, chronic obstructive pulmonary disease and chronic pain. The patient wanted to continue on chemotherapy, and Ms. Lunsford says that she and other nurses visited frequently for months to adjust her pain medication, manage her nausea and help her to breathe until she switched to hospice care and died at home.

Bill Ellsworth, an 83-year old former Navy engineer with a long history of heart problems, says that he enjoys the twice-monthly visits from his Aspire nurse practitioner, but he scoffs at the notion that a computer program thinks he’ll die in the next year. “They’ve been giving me two years to live since 2003,” he says.

“Occasionally we’re wrong, and we couldn’t be happier,” says Dr. Thimons.