

# PHILIPS

## Innovation

### CareSage

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# Delivering predictive care for at-risk patients in their homes

**Our CareSage predictive analytics engine enables hospitals and clinicians to monitor patients remotely and intervene before an adverse event potentially occurs**

## Need

Care organizations need an efficient way of monitoring and prioritizing care for at-risk patients once they are discharged from hospital to home in order to help avoid emergency room visits.

## Solution

CareSage predictive analytics engine integrates data from Philips Lifeline records, medical alert activity and other sources. This information is merged with predictive analytics and modeling to deliver a decision-support solution for proactive outreach in anticipating future falls and other medical complications that put patients at risk for ambulance transport.

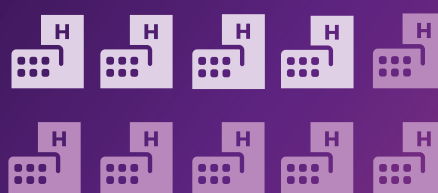
## Benefits

- **Predictive care:** when a patient may need intervention by virtue of being at risk for emergency transport over the next 30 days.
- **Population health management:** Creates a daily risk score for clinicians to enable them to monitor their panel of patients more effectively and efficiently.

After a hospital stay, many patients are discharged with no long-term monitoring, leaving them without proactive care while at home. The CareSage predictive analytics engine enables health systems to better monitor and care for their at-risk patient population.

When used in conjunction with the Philips Lifeline with AutoAlert<sup>1</sup> medical alert service, CareSage predictive analytics collects and analyzes data from multiple sources, enabling clinicians to monitor, qualify and assess patient risk remotely, then intervene early to potentially avoid preventable hospitalizations.

**40%**  
of hospital  
admissions  
could potentially  
be avoided<sup>2</sup>

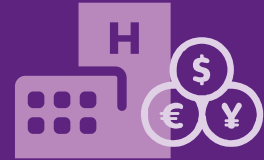




**One in four US seniors** (65+) fall each year. Falls are the leading cause of fatal injury and nonfatal hospital admissions for this group.<sup>3</sup>



Maintaining independence is a key concern; **nearly 90% of US seniors want to stay in their homes.**<sup>4</sup>



Increasing numbers of hospitals face **financial penalties** for readmissions.

## Extending care into the home

Health systems are looking to provide better outcomes at lower costs by extending care into the home, where many health events among elderly patients occur. Falls are a leading cause of fatal injury and non-fatal hospital admissions for people over 65,<sup>3</sup> which is why some providers are equipping their patients with automatic fall detection pendants enabled with increasingly smart capabilities.

Automatic fall detection pendants can help older adults continue to live independently on their own terms and are designed to automatically detect true falls, with a low rate of false alarms, and to provide access to help quickly. This is especially true for those patients with a history, risk, or fear of falling.

Combining Lifeline with AutoAlert technology with the CareSage predictive analytics engine can provide a clear view of patients in

the “white space” – that critical cloudy area upon discharge when the risk of readmission is very high.

CareSage predictive analytics provides a view into the home. It collects and analyzes data from multiple sources, enabling clinicians to monitor, qualify and assess patient risk remotely in order to help improve patient outcomes and care. CareSage, powered by Philips Lifeline, identifies when a patient needs assistance, or is at risk for emergency transport in an upcoming 30-day period.

## Insight into emerging risk

Insight into emerging risk within a patient population allows doctors to monitor all their at-risk patients remotely and identify those in need of assistance. The care team can then intervene early and treat patients in a lower cost of care setting, which may also give patients the opportunity to live more independently for longer.

A recent study by Partners Connected Health, a division of non-profit US healthcare group Partners Healthcare of Boston, MA, demonstrated projected savings in a retrospective evaluation of the CareSage predictive analytics engine. In an analysis of five years of data from their population of 2,318 Philips Lifeline subscribers, Partners projected that 224 hospital admissions could potentially be avoided each year, equal to a 40% reduction or \$2.2 million in potential net savings. The study also provided a clinical validation of the predictive algorithm.<sup>2</sup>

**CareSage analytics identifies when a patient may need intervention by virtue of being at risk for emergency transport over the next 30 days**



### Learn more

<https://www.lifeline.philips.com/caresage>



1. AutoAlert does not detect 100% of falls. If able the user should always push their button if they need assistance. Button signal range may vary due to differing environmental factors.
2. Golas, S.B., et. al. (2016, April) Retrospective Evaluation of Philips Lifeline CareSage Predictive Model on Patients of Partners Healthcare at Home. Poster session presented at the American Telemedicine Association, Minneapolis, MN.
3. US Centers for Disease Control and Prevention fact sheet
4. The United States of Aging Survey, 2012, American Association of Retired Persons (AARP)

