

Whitepaper

How AI-Driven Inpatient Telehealth Impacts Fall Prevention, Length of Stay & the Patient Experience

If 72,400 new healthcare providers joined the field today, our country would still be facing a shortage.¹

Hospital systems nationwide have seen an influx of post-COVID burnout and high turnover among staff, and the problem will only compound: A recent Elsevier Health study revealed up to 47% of healthcare workers plan to leave their jobs by 2025.²

Why? The answer is simple: Providers feel undervalued and overworked. Schedules filled with administrative tasks rather than person-centered, bedside care not only negatively impact the day-to-day lives of nursing staff, but also the patient experience — which hurts hospital systems as a whole.

It's clear that our current standards and processes for providers aren't cutting it. We need to turn the system around, and fast, before more patients are forced to jump through several hoops to receive less-than-exceptional care. AI-enabled remote patient monitoring and virtual visits could be the answer.

From fall prevention strategies and hands-free scribing to direct calls connecting patients and providers from anywhere, leveraging technology to enhance human interactions is critical for driving better health outcomes, cost savings and ROI.

Today's forward-thinking inpatient telehealth solutions require no remotes, buttons, apps or tech-savviness — just hands-free technology that streamlines the patient experience while addressing provider burnout.

With affordable, scalable software implemented across all campuses and facilities, it's more possible than ever to reduce falls, decrease lengths of stay and put humanity back in healthcare.



Fall Prevention

The Problem: Falls Come at a Hefty Cost for Hospitals & Patients Alike

As any healthcare worker knows firsthand, falls are more than a far-and-few-between scenario. Each year, nearly 1 million patients in the U.S. fall during their hospital stay, resulting in around 250,000 injuries and 11,000 deaths.

The National Institute of Health also found that falls occur at a rate of 3 to 5 per 1,000 bed-days, and roughly 2% of hospitalized patients fall at least once during their stay.³

Inpatient falls create several physical and economic burdens for patients — like higher injury and mortality rates and skyrocketing hospital bills — as well as for hospital systems dealing with medical costs, litigation and increased lengths of stay.

The high frequency of falls is enough cause for concern, but each incident also comes at a high price.

The Alarming Expense of Patient Falls

- The unreimbursed costs for treating a hospital-related fall injury range from **\$7,000 to \$30,000**, in addition to an average **\$55,000 in legal claims** and proceedings per fall.⁴
- Up to 35% of patients who fall in hospitals get injured: The average **cost of a fall with injury is \$14,000**.⁵
- More than **33% of inpatient falls are preventable**.⁶

For most providers, patient falls have become yet another part of the job contributing to burnout, stress and high turnover — but they don't have to be.

A proactive, hybrid healthcare approach leveraging AI-driven technology with predictive analytics could prove revolutionary in any hospital system's risk management strategy.

The Solution: A Predictive, AI-Enabled Virtual Sitter & Alert System

To redefine hospital-wide fall prevention, one must start by redefining individual remote patient monitoring measures and risk factors.

Traditionally, most hospitals employ the same general guidelines for fall prevention:

- 1) Identify patients who are at high risk of falling based on age, medical history, level of mobility, etc.
- 2) Use clinical judgment to decide which fall prevention strategy to utilize to reduce fall risk.

Evidently, these guidelines are quite subjective and lack clarity and consistency across the board. This creates confusion regarding the “right approach” to fall prevention, placing extra responsibility on overwhelmed providers while increasing patient safety risks.

AI has already enhanced so many other aspects of the care continuum, so why should nursing staff have to guess when it comes to fall prevention? Safe hospital room environments and no-slip socks can only do so much — especially when the following fall prevention strategies are available today:



Instant Alerts: Delayed alerts are a common pain point among providers that prevents them from getting where they need to be before it's too late. Fortunately, there are all-in-one systems that monitor several patients from a single workstation, then integrate with EMRs to automatically deploy real-time alerts to the appropriate staff members.

Proper implementation of alarms reduces the risk of falls by at least 18%.⁷



Virtual Sitters: Continuous monitoring via virtual sitter is key for improved patient safety and provider efficiency. Most sitters, however, are expensive and ineffective. The best solutions are affordable, highly scalable and leverage AI for ideal outcomes.

Virtual sitters decrease falls by 14% on average, while AI-enabled virtual sitters yield even higher percentages.⁸



Predictive Analytics: While this technology is still in its early stages, the most intuitive solutions tap predictive analytics to detect patient falls before they actually happen. AI picks up on specific movement and voice cues, so by the time the patient has fallen a provider is already at the bedside.

Predictive analytics have potential to reduce patient falls by 82%.⁹

Featured Case Study: Benson Hospital

Since adopting Vitalchat's remote patient monitoring software with SmartView and MultiView in September 2021, Benson Hospital has seen:

- **66% reduction** in falls.
- **Zero falls** with injury since the technology has been in use.

Length of Stay

The Problem: Patients Want to Recover at Home. Hospitals Want Them There, Too.

Patient falls and increased length of stay are directly related. In fact, a single fall typically keeps a patient in the hospital for six additional days.¹⁰ This is problematic for a few reasons:

- KFF found that inpatient expenses are around \$3,000 per room, per day — which means six extra days cost hospitals upwards of \$18,000.¹¹
- The U.S. Department of Health and Human Services reports nearly 80% of hospital beds are in use at any given time.¹² One unexpected intake spike could lead to patient overflow that decreases timeliness and quality of care.
- Longer stays are objectively detrimental to the patient experience. One American Journal of Family Medicine study proved that shorter lengths of stay are tied to at least 6% higher patient and family satisfaction rates.¹³

Clinical flow delays also make patients wait longer for care, as subpar inpatient monitoring, slow alerts and manual scribing make it harder for providers to get patients in and out of the hospital quickly.

The Solution: Intuitive Features for Faster Discharge & Seamless Clinical Flow

Fortunately, there are options that help keep clinical flow on track to reduce length of stay:

- **Continuous Monitoring:** The ability to monitor entire floors or departments from a single workstation allows providers to focus on delivering person-centered care to the right patients at the right time, while also helping minimize emergencies. The best software can oversee up to 100 rooms at once, though the industry average is around a dozen.
- **Real-Time Alerts:** Time and ease are major factors here. Not only should notifications be automatic and instant, but the right system will offer hands-free technology requiring no remotes or buttons to deploy the alerts. Ideally, everything would be powered by patient movement and voice to eliminate delays and inconsistencies.
- **Automatic Scribing:** Providers often spend so much time on intake, discharge and other administrative tasks that it takes away from face-to-face patient care. Like TikTok for healthcare, automatic scribing frees up provider time by inputting all critical data into EMRs via voice, without nurses ever needing to touch the keyboard.

When leveraged together, these solutions can help decrease lengths of stay by alleviating time-intensive provider burdens while improving the patient experience.



The Patient Experience

The Problem: Provider Burnout & Understaffing Lead to Unhappy, Unhealthy Patients

Staffing shortages wreak havoc on patient health outcomes and satisfaction, leading to frequent data inaccuracies, delayed emergency intervention and higher mortality rates, among other issues.

It makes sense, then, that the key to a better patient experience starts with simplifying providers' lives through AI-enabled technology. When nursing staff can utilize their time, energy and talents more efficiently, everyone wins.

The Solution: Leveraging Technology to Turn Patient Care into a Journey; Not a Transaction

The patient experience is commonly defined by "The 4 Ps": Personalized, Participative, Predictive and Preventive.¹⁴ Let's look at how the right software can alleviate burdens for providers, which in turn will leave patients healthier and happier.

- **Personalized:** Person-first care is difficult to deliver when providers are swamped with operational duties and patients' unique medical and cultural needs aren't being met — but there are solutions. Voice-to-text and text-to-voice translation options eliminate language barriers during virtual visits in real time. Hands-free virtual visits give patients greater privacy and control throughout their stay. Automatic scribing allows nurses to spend more time with patients and take notes via voice, rather than typing information into the EMR.

- **Participative:** Every member of the care team, from providers to loved ones, plays a vital role in a patient's journey. However, most inpatient and outpatient telehealth solutions exclude those who are remote. The best software will offer direct call capabilities that enable family and other parties to join virtual visits from anywhere. And, of course, the care continuum doesn't end after leaving the hospital. AI-enabled virtual visits bring the hospital room to the home, so patients can recover comfortably while still being able to quickly and easily connect with providers.



- **Predictive:** Responding to an emergency as soon as it happens is good, but responding to an emergency before it happens is better. Continuous remote patient monitoring with predictive analytics that scan rooms 24/7 help ensure timely care and lower injury and mortality rates.
- **Preventive:** While many hospitals rely on clinical judgement for fall prevention, this is inconsistent and unreliable. An ideal strategy would be utilizing software that oversees dozens of patients simultaneously, then automatically and instantly alerts staff of an incident. This eliminates human error while standardizing fall prevention processes across hospital networks.

Start Scaling with Vitalchat

Enough talk about “the right software” and “the best software” — that software is Vitalchat. Revolutionizing hybrid healthcare, Vitalchat combats labor shortages and burnout while improving patient satisfaction with proprietary, hands-free telemedicine solutions that enable providers to monitor and treat up to 100 patients simultaneously from a single workstation. Leveraging video AI and seamless integration with other technology partners, Vitalchat is defining the hospital room of the future — cost effectively and at scale — while enhancing the human experience. What's more, Vitalchat's patent-pending architecture conserves data transmitted over the network while enabling video to be activated upon an alert — an essential feature for hosting 24/7 monitoring across a hospital network.

Built to scale quickly across hospital systems at a far lower cost than competitors, our proprietary technology simplifies delivery without compromising capability, eliminating costly third-party licensing dependencies through a convenient stack model.

Vitalchat's intuitive software and flexible, agnostic hardware can be up and running within minutes, and hospital systems can even integrate the technology with their existing WOWs, laptops, TVs and tablets.

Hospitals nationwide are saving money, reducing burnout and improving quality of care with Vitalchat technologies. Your journey toward a streamlined patient experience starts with a demo.

Request Demo

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