

Safety Events: Preventing Patient Harm



This material was prepared by Telligen, a Hospital Quality Improvement Contractor, under contract with the Centers for Medicare & Medicaid Services (CMS), an agency of the U.S. Department of Health and Human Services (HHS). Views expressed in this material do not necessarily reflect the official views or policy of CMS or HHS, and any reference to a specific product or entity herein does not constitute endorsement of that product or entity by CMS or HHS. This material is for informational purposes only and does not constitute medical advice; it is not intended to be a substitute for professional medical advice, diagnosis or treatment. HQIC-10/02/24-0241

WHY IS THIS IMPORTANT?

Patient safety covers many areas – emergency department overcrowding, injuries during surgery and general injury prevention at home and in the community (to name a few). This resource package will cover falls, pressure injuries and pulmonary embolism/deep vein thrombosis (PE/DVT).

The pandemic provided unique challenges to frontline personnel in keeping patients safe. In addition to formal guidance and evidence-based recommendations, frontline healthcare personnel employed creative measures to keep patients safe.¹ As more data and information becomes available, this is an opportune time to evaluate current practices to determine efficacy and effectiveness.

BACKGROUND

FALLS

Falls are the leading cause of fatal and nonfatal injuries among adults age 65 and over in the United States, accounting for about 3 million emergency department visits, more than 950,000 hospitalizations and over 32,000 deaths (in 2018), accounting for nearly \$50 billion in direct medical costs each year. In 2010, the American Geriatrics Society and the British Geriatrics Society (AGS/BGS) released a guideline to help primary care practices implement fall prevention. Many tools have been developed to assess fall risk and prevent falls.² Certain populations experience greater safety event impacts than others.

PRESSURE ULCERS

Hospitals across the country have seen an increase in device-associated pressure injuries and a meta-analysis in 2019 found an incidence of 12% for pressure injuries related to the use of medical devices. Increased use of common medical devices such as catheters, electrodes and nasogastric tubes have amplified the risk of pressure injuries for patients in all care settings. One study estimates the cost of each device related injury could be around \$5,000.³

PULMONARY EMBOLISM (PE)/DEEP VEIN THROMBOSIS (DVT)

Pulmonary embolism resulting from deep vein thrombosis is the most common preventable cause of hospital death.⁴ PE is the third most common vascular disease in the United States with an annual prevalence of 66 cases per 100,000 population.⁵

PREPARING FOR CHANGE

The [Plan-Do-Study-Act \(PDSA\)](#) cycle provides a sound framework for quality improvement. Plan by mapping the current process to identify gaps, identifying who will be involved, and confirming what resources may be needed. Do the work by implementing a change or intervention and collecting data on the results as you go. Study the data – were the desired results achieved? Act on the results – accept or adjust the implemented change. Alongside this framework, Telligen recommends utilizing its comprehensive [Quality Improvement Workbook](#) which provides valuable resources to support your team's quality improvement efforts. Additionally, Telligen quality improvement facilitators developed the change pathway tool – a topic-specific, step-by-step guide to quality improvement, created using evidence-based practice resources and guidelines.

¹ <https://psnet.ahrq.gov/perspective/patient-safety-events-and-role-patient-safety-organizations-during-covid-19-pandemic>

² <https://www.cdc.gov/steady/pdf/Steady-Coordinated-Care-Plan.pdf>

³ <https://psnet.ahrq.gov/issue/medical-device-related-pressure-ulcers-systematic-review-and-meta-analysis>

⁴ <https://www.ahrq.gov/patient-safety/settings/hospital/vtguide/index.html>

⁵ <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8938787/>

FALLS

PREVENTING HARM

CHANGE PATHWAY

The change pathway tool is a topic-specific, step-by-step guide to quality improvement. The change pathway is created using evidence-based practice resources and guidelines. Key quality improvement activities such as formulating an aim statement, conducting a root cause analysis and identifying interventions are included in each guide. Interventions are outlined as beginner, intermediate and expert so that you may explore opportunities for improvement that meet your needs.

- [Change Pathway: Enhancing Capacity: Reengineering Fall and Fall Injury Programs](#)

RESOURCES

[AHRQ – Fall TIPS: A Patient-Centered Fall Prevention Toolkit](#)

[CDC – STEADI – Older Adult Fall Prevention](#)

[Telligen – Fall Prevention Organizational Assessment](#)

RECORDINGS AND SLIDE DECKS

Enhancing Capacity: Reengineering Fall and Fall Injury Programs: Infrastructure, Capacity and Sustainability – [Slides](#)

HQIC Community of Practice Call: Reengineering Fall and Fall Injury Programs: Infrastructure, Capacity and Sustainability – [Slides](#)

EFFECTIVENESS CHECKS

1. Audit for the specific change you were aiming for.
2. Collect and analyze the data.
3. Share findings, opportunities and successes with staff, leadership and if possible, with patients.

Based on your data findings, if the change seen did not lead to the desired improvement, re-evaluate the root cause and consider launching another PDSA cycle.

For additional information and resources, visit Telligen's [hospital resources page](#).

PRESSURE INJURIES

PREVENTING HARM

CHANGE PATHWAY

The change pathway tool is a topic-specific, step-by-step guide to quality improvement. The change pathway is created using evidence-based practice resources and guidelines. Key quality improvement activities such as formulating an aim statement, conducting a root cause analysis and identifying interventions are included in each guide. Interventions are outlined as beginner, intermediate and expert so that you may explore opportunities for improvement that meet your needs.

- [Change Pathway: Pressure Injury: All-Cause Harm Event for Hospitals](#)

RESOURCES

[AHRQ – Preventing Pressure Ulcers in Hospitals](#)

[NPIAP – Free MDRPI Prevention Posters](#)

[National Pressure Injury Advisory Panel \(NPIAP\) – COVID-19 Resources](#)

[NPIAP – Pressure Injury Prevention: PIP Tips for Prone Positioning](#)

RECORDINGS AND SLIDE DECKS

Pressure Injury: All-Cause Harm Reduction – [Slides](#)

WALK with the WOC and Step into a Brighter Future of Pressure Injury Prevention – [Slides](#) and [Change Pathway](#)

EFFECTIVENESS CHECKS

1. Audit for the specific change you were aiming for.
2. Collect and analyze the data.
3. Share findings, opportunities and successes with staff, leadership and if possible, with patients.

Based on your data findings, if the change seen did not lead to the desired improvement, re-evaluate the root cause and consider launching another PDSA cycle.

For additional information and resources, visit Telligen's [hospital resources page](#).

PE/DVT

PREVENTING HARM

The rate of hospital-associated venous thromboembolism (VTE) is likely grossly underestimated, as reporting often excludes patients readmitted to other hospitals, undiagnosed but clinically significant VTE, and those treated post-acute or in outpatient settings. Since VTE prevention is only one of many priorities for busy clinicians and QI leaders, it is important to help hospital leadership understand how an effective VTE prevention program aligns with broader goals like medical care, performance reporting, patient safety, patient satisfaction, and minimizing cost impact.

Each hospital-associated DVT event incurs additional costs of \$7,700 to \$10,800, while pulmonary embolism (PE) events add \$9,500 to \$16,600. In high-risk patients, the cost of acute hospital-associated VTE (HA-VTE) is even higher, exceeding \$20,000 per episode. These costs do not account for the long-term financial burden on society and patients due to recurrent VTE, post-thrombotic syndrome, and pulmonary hypertension. It's also critical to note that the Centers for Medicare & Medicaid Services (CMS) no longer reimburses for DVT and PE costs associated with certain surgeries, such as total knee and hip replacements, and may expand that list.

A comprehensive VTE prevention protocol requires risk assessment tools, targeted prophylaxis, and more than standardized order sets. Continuous measurement, monitoring, and addressing care delivery barriers are essential for successful implementation.⁶

RESOURCES

[AHRQ – Preventing Hospital-Associated Venous Thromboembolism](#)

[American Heart Association – What is VTE?](#)

[American Society of Hematology – Clinical Practice Guidelines on Venous Thromboembolism](#)

[CDC – Venous Thromboembolism \(Blood Clots\)](#)

EFFECTIVENESS CHECKS

1. Audit for the specific change you were aiming for.
2. Collect and analyze the data.
3. Share findings, opportunities and successes with staff, leadership and if possible, with patients.

Based on your data findings, if the change seen did not lead to the desired improvement, re-evaluate the root cause and consider launching another PDSA cycle.

For additional information and resources, visit Telligen's [hospital resources page](#).

⁶ <https://www.ahrq.gov/patient-safety/settings/hospital/vtguide/guide1.html>