

INSTRUCTIONS

Case Study of Patient Safety Indicator Improvement Implementation

What is this tool? This tool provides a case study from one hospital that participated in the field test and evaluation of the entire toolkit. It offers a description of the tools the hospital chose to use, as well as several of the key actions it took to improve performance on the Patient Safety Indicators (PSIs).

Who are the target audiences? The primary audiences for this tool are senior hospital leaders and quality leaders.

How can this tool help you? You can use this tool to better understand how other hospitals may use the toolkit.

How does this tool relate to others? This tool should be used together with the Toolkit Roadmap, which provides an overview of all the individual tools and can help in selecting the tools that best meet your hospital's needs.

One Hospital's Experience Using the Toolkit for Quality Improvement

A hospital on the West Coast was an active participant in testing the usefulness of this toolkit. This hospital is a large level I trauma center that had already been working to improve its performance on the AHRQ PSIs for 2 years when the toolkit first became available. Their focus while working with the toolkit was on PSI 12, postoperative deep vein thrombosis or pulmonary embolism (DVT/PE). They had two primary goals in their efforts:

- Identify potential cases of PSI 12 as early as possible.
- Use that information to improve their performance on this indicator.

In working with the toolkit, the hospital used only the tools needed to accomplish its quality improvement goals. One tool they used was A.3, Getting Ready for Change Self-Assessment. This tool revealed that their leadership and board of trustees were fully “on board” and engaged in supporting the project. At the same time, the tool highlighted that a key challenge the hospital would face throughout its improvement efforts was disseminating information about quality and patient safety to staff at all levels of their organization.

During the project, the hospital moved from using quarterly summaries of their PSI rates provided by the University HealthSystem Consortium to running the AHRQ WinQI software at the hospital on a monthly basis to identify cases. (See tool B.2b, IQI and PSI Rates Generated by the AHRQ WinQI Software, for guidance on using this software). They used the Prioritization Matrix (Tool C.1), which helped them identify PSI 12, along with two others, as priority areas for improvement. The project leader and members of the hospital's leadership team presented the rates and information from the Prioritization Matrix to many groups within the hospital: the surgical council, medical executive board, critical care council, hospital board, clinical documentation specialists, and coding department. These presentations focused on educating stakeholders about the PSIs and why the hospital was emphasizing the opportunity to improve their performance as assessed by the PSIs.

As they began to take an indepth look at their data on postoperative DVT/PE, one of the earliest lessons learned was the need to discuss the PSIs with the hospital's coding department. Since the coders needed to use physician documentation to identify cases that met the PSI criteria, several issues needed to be clarified. For example, the hospital wanted to ensure that a "rule out" diagnosis—where the patient is being observed or tested for the presence of a DVT or PE—was never coded as meeting the criteria for PSI 12 unless an actual diagnosis of DVT or PE was established for that patient. The hospital also wanted to validate that DVTs/PEs that were present on admission were coded appropriately.

A number of the other hospitals that participated in the field test and evaluation of this toolkit also had concerns about coding and documentation. These concerns prompted the development of Tool B.4, Documentation and Coding for Patient Safety Indicators, which provides guidance on these issues.

Over the course of the project, the hospital made a number of changes to improve the quality of DVT/PE prevention for its patients. These included providing additional education and resources for nurses and residents on existing prophylaxis guidelines; assisting clinical pharmacists in daily identification of all patients not receiving chemical prophylaxis; and shifting chemical prophylaxis dosing to avoid missed doses due to changes in scheduled surgical procedures. In addition to these changes, the hospital integrated the information from Tool G.2, Specific Tools To Support Change, into a quality and safety intranet page that centralized resources to support clinical staff taking on quality improvement projects.

From the Implementation section of the toolkit, the hospital made particular use of the Project Charter (D.2), Gap Analysis (D.5), and Implementation Plan (D.6). Together, these tools helped chart the course of the project, including setting initial goals, identifying key activities, and tracking progress over time.

Beyond using the AHRQ WinQI software to identify potential incidents of PSI 12, the hospital developed its own system for tracking the review of all DVT/PE events, using internal diagnostic systems. Once each month, the quality improvement team reviewed both PSI 12 and other hospital-acquired DVT/PE events. This included uploading information on these events to an internal database that allowed staff to track and analyze the results. The reviews included assessing potential coding and documentation concerns and reviewing the care that was provided to identify opportunities for clinical improvement.

This review was done by the quality improvement staff and a multidisciplinary clinical task force. The database enabled the quality improvement staff to ensure that a final determination was reached about whether each case suggested the need for changes either to improve coding or documentation or to ensure that the standard of care for anticoagulation prophylaxis was met.

The key lessons that the hospital learned from the project include:

- The need to validate potential PSI cases and work closely with the coding department and physicians who are documenting care.

- The importance of having leadership support, with hospital leaders emphasizing both the importance of the project and the accountability that clinical providers have for improving care.
- The importance of providing timely data to clinicians that provides feedback on progress, with a focus on actual clinical events and outcomes.