I-PASS®
PATIENT SAFETY INSTITUTE

CARILION GILES COMMUNITY HOSPITAL

Critical Access Hospital Standardizes Nurse Handoff Communication to Reduce Patient Safety Errors and Improve Quality Outcomes

CARILION GILES COMMUNITY HOSPITAL

Study Highlights

68% reduction in communication failure-related safety events

5.6x more likely for handoffs to be conducted in the desired locations

90% decrease in reported rate of harms/100 days worked

51% increase in handoffs adhering to all 5 mnemonic elements

Executive Summary

Poor handoff communication is a leading cause of medical errors, increased length of stay, and increased adverse safety events. When Carilion Giles Community Hospital (CGCH) experienced an increased number of reported adverse patient safety events due to communication failures over a 12-month period, leaders didn't hesitate to act.

A critical access hospital in Virginia, CGCH receives an annual Small Rural Hospital Improvement Program (SHIP) grant from the Health Resources and Services Administration (HRSA) and dedicates the grant to patient improvement and patient safety initiatives. In 2022, Jennifer Bailey, MHA, BSN, RN, Director of Quality and Patient Safety at CGCH, visited the SHIP website to look for recommended ways to use the grant.

The I-PASS Handoff Bundle stood out because of CGCH's recent surge in communication failures. Bailey became the main champion for I-PASS at CGCH, gaining early buy-in from leadership and initiating the process for implementation of a standardized patient handoff communication in May 2022. Ahead of implementation, the leadership team set a goal to utilize I-PASS to reduce communication failure–related events by 20% in one year.

This case study highlights the approach CGCH took to successfully implement and scale the I-PASS Handoff Bundle with inpatient nurses in the emergency department (ED) and the Medical-Surgical unit (Med-Surg) to transform their handoff workflow, reduce communication failures, decrease average length of stay, and drive measurable improvements in patient safety.

Identifying
Increased Communication Failures

Prior to implementing I-PASS, CGCH did not have a formal, standardized system for clinician communication. Without a set process, communication among frontline staff was fragmented, causing the handoff process to become unreliable. As Bailey explained, the handoff workflow at CGCH varied from unit to unit; sometimes the ED nurses would use group report, while the Med-Surg nurses mainly conducted nurse-to-nurse communication without entering the patient's room, resulting in handoff communication that was haphazard and inconsistent. Nursing leaders and staff started to recognize the impact that disjointed communication was having on the safety and quality of patient care.

Handoff miscommunication became an elevated issue after CGCH leadership reported an increased number of adverse patient safety events from October 2020 to September 2021. Additionally, the COVID-19 pandemic had exacerbated communication errors at CGCH. Due to a limited visitation policy during the public health emergency, the hospital received more complaints than usual from patients and their families regarding lack of communication. By October 2021, the CGCH team was averaging three communication-related adverse events per month.

Leading Factors of Miscommunication

Failures in communication affect multiple components of patient care in hospital EDs and Med-Surg units. At CGCH in particular, there were a few common events that led to communication failures: information was not passed from shift to shift; information was omitted completely during handoffs; medications were not logged; and specimens were not collected. These types of communication failures often extended patients' average length of stay, driving up costs for the patients and the hospital. "In one example, a delay in a specimen collection resulted in an increased length of stay for a patient while trying to identify the appropriate antibiotics to administer," explained Bailey.

Before I-PASS, the CGCH team was averaging almost **3 communication-related adverse events per month.**

*See results in Figure 1, page 4

The tenure of front line staff was a significant reason to provide a structured process for handoff communication. Having a structured process in place helps newer nurses build confidence in their communication and decision-making skills.

Common Events That Lead to Communication Failures

- Failure to pass information shift to shift
- Information omitted completely during handoffs
- Medications not logged
- Specimens not collected

Implementation Plan

Prioritizing Efficient and Effective Communication

Bailey prioritizes patient safety and quality initiatives every day and recognizes the importance of leadership buy-in for maximizing new-program effectiveness. After presenting the I-PASS Handoff Bundle to leadership, she successfully gained the support of key stakeholders, including the vice president of CGCH, who had led the nursing department for an extended period and understood the deep-rooted communication challenges firsthand. Once leadership was on board, the CGCH and I-PASS teams connected, combined into one team, and started planning for implementation.

In early planning conversations, the core CGCH and I-PASS team mapped out a customized 12-month implementation plan to meet their program adoption needs and patient safety goals. The plan comprised three overlapping phases with multiple steps.

I-PASS Implementation at Carilion Giles Timeline - Single Wave

Phase	Objective	CGCH Timeframe	Deliverable
Phase I	Planning	3-4 Months	Engage stakeholders & Champions, assess current state, refine implementation timeline & plan roll-out
Phase II	Implementation	4-8 Months	Baseline data collection, develop & pilot written handoff tool, train clinicians, Go-Live & continue observations and data collection
Phase III	Sustainment	3-4 Months & Ongoing	Continue observations and conduct ongoing iterative improvement cycles

As the hospital's leading I-PASS champion, Bailey played multiple roles throughout implementation—she was a messenger, educator, troubleshooter, cheerleader, and more. On a day-to-day basis, nurse managers and educators were also heavily involved in implementation, creating tools and working closely with frontline staff to determine what best fit their needs for training and adoption.

Navigating the Effects of Burnout

Due to the COVID-19 pandemic, the past few years have been overwhelmingly difficult for frontline staff, especially for the nursing workforce[1]. Today, healthcare providers continue to experience burnout and fatigue[2] at alarming rates, which can sometimes make it difficult to implement new tools without receiving pushback.

Such was the case at CGCH, as frontline staff and their leaders were initially hesitant to embrace I-PASS implementation. "There's such a fine balance between adding a meaningful tool for staff and not creating unnecessary work in the process," Bailey explained. "But we were confident that implementing I-PASS would ultimately make life easier for the frontline nurses while ensuring we maintain our patient safety and quality measures." The CGCH nursing staff appreciate that I-PASS provides a unified communication structure across the team. "I-PASS helps ensure we're all communicating the same information," said Casey Asbury, RN.

Outcomes

Improving Consistency and Reducing Adverse Events

Despite having limited resources and team members, the CGCH team experienced a relatively smooth I-PASS implementation. At the outset of implementation, the team set a goal to reduce the number of communication failure–related safety events by 20% per month* during fiscal year (FY) 2023 (Oct. 1, 2022–Sept. 30, 2023). This goal was reported monthly to CGCH committees, the Medical Executive Committee, and the Board of Directors.

Overall, CGCH has reduced events related to communication failures such as medications not given, medications duplicated, timeliness of medication administration, and specimen collection.

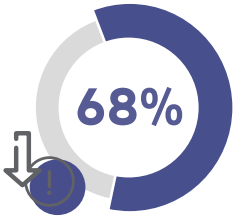
Since October 2022, CGCH has averaged less than one communication-related event per month, and for three consecutive months the organization reported zero events (Figure 1). Overall, CGCH has reduced events related to communication failures such as medications not given, medications duplicated, timeliness of medication administration, and specimen collection.

Figure 1

Reported Communication Failure-Related Safety Events

Metric	Monthly Average at Baseline	Monthly Average Post Go-Live
Reduction in nursing communication SafeWatch events by 20% by using I-PASS	2.5	0.8

*20% Reduction or Total ≤ 2 events /month



68% reduction in communication failure-related safety events

Shifting from the Hallway to the Bedside

Along with standardizing handoff communication, CGCH nurse leadership hoped to reinforce a change in how bedside shift reports were conducted. During I-PASS implementation, the CGCH team incorporated the expectation that nurses must conduct a bedside report and include the patient and family in that communication. To support a parallel shift in conducting bedside handoffs, the I-PASS team added, "Where did the handoff occur?" as a required question on the assessment form completed by observer champions. Response options included: in patient room, at patient bedside, at nursing station, and other (with a text box to add context). This provided an avenue for measuring this transition over time.

"Having a report at the bedside, where the patient had input and the family was involved, was **key to improving our bedside communication."**

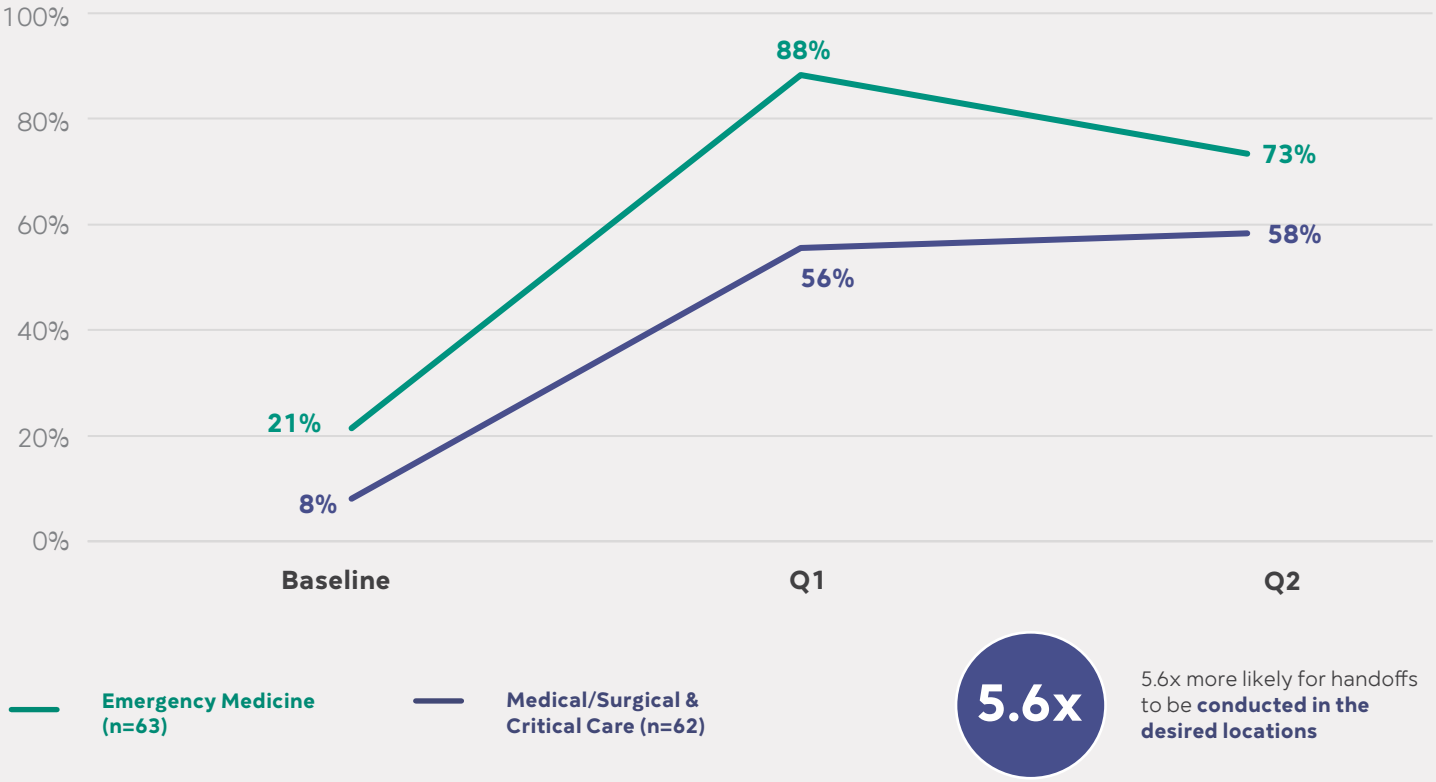
- Jennifer Bailey, MHA, BSN, RN, Director of Quality and Patient Safety, CGCH

After go-live of I-PASS, the observer champions were encouraged to provide real-time feedback on both adherence to the I-PASS bundle and handoff location to promote further adoption and sustainment. "This was another reason why we chose I-PASS," Bailey explained. "Having a report at the bedside, where the patient had input and the family was involved, was key to improving our bedside communication."

By the end of implementation, 73% of observed handoffs were occurring in the patient room or at bedside in the ED, nearly a 250% increase from the baseline. In Med-Surg, handoffs occurring in the patient room or at the bedside increased from 8% at baseline to 58% by the end of implementation. Figure 2 highlights the shift in observed handoffs being conducted either at the patient's bedside or in the patient's room.

Figure 2

Percent of Observed Handoffs Occurring in Patient Room or at Bedside, by Unit



Improved Adherence to the I-PASS Mnemonic Elements

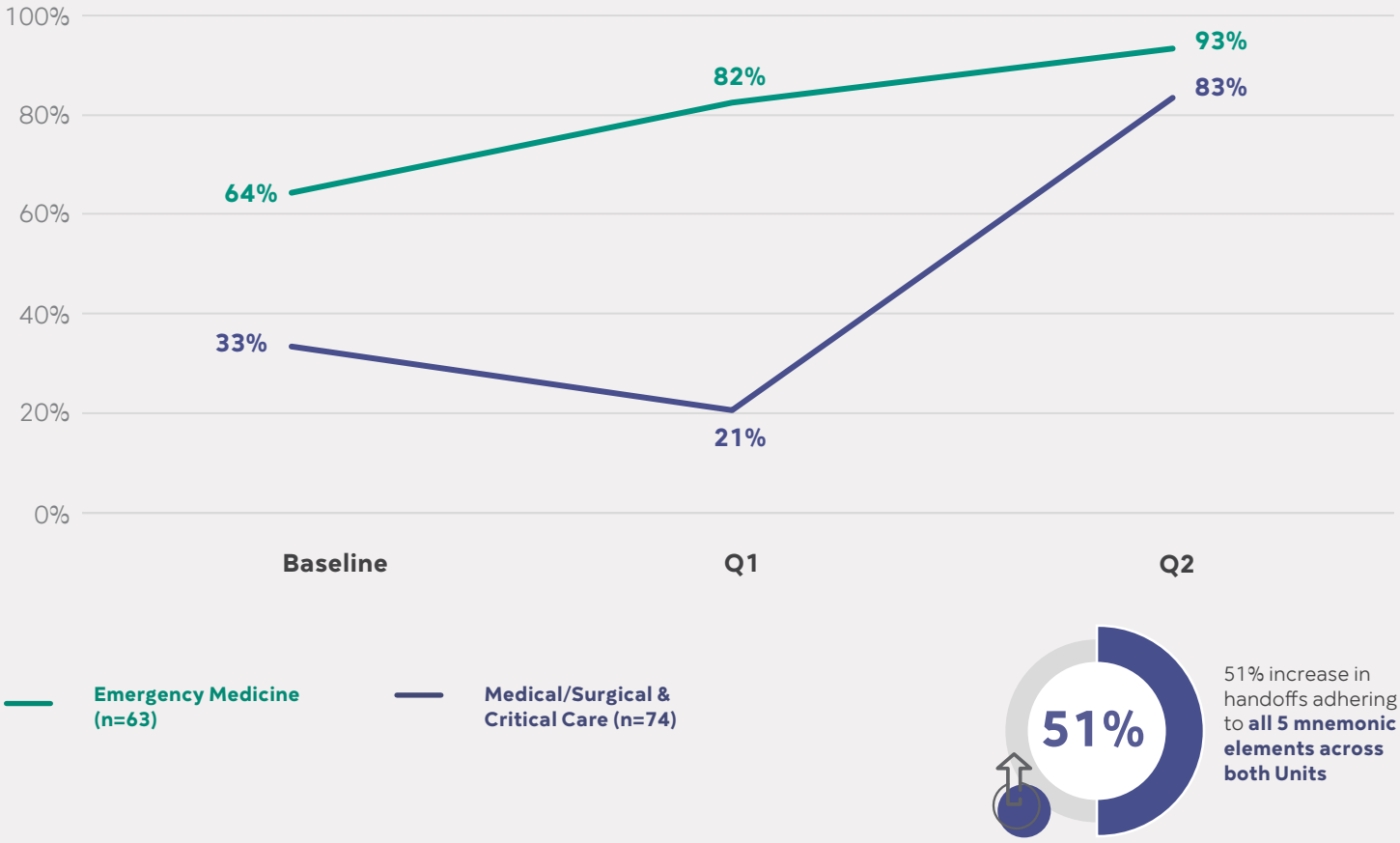
The I-PASS mnemonic provides a framework for the patient handoff process as follows:

- **I** Illness severity
- **P** Patient summary
- **A** Action list
- **S** Situation awareness and contingency planning
- **S** Synthesis by receiver

The goal is for all five I-PASS mnemonic elements to be present for every patient, every handoff. Frontline staff completed brief surveys, grading the handoff information that was received and how it applied to the I-PASS elements. This data was broken down by department and provided specific details surrounding element compliance, helping to demonstrate areas for targeted focus and interventions. Over time, with continued support, the number of observed handoffs adhering to all 5 mnemonic elements increased by 51%. Figure 3 displays the shift in the percentage of handoffs adhering to the full mnemonic over time.

Figure 3

Percent of Observed Handoffs Adhering to All 5 Mnemonic Elements, by Unit

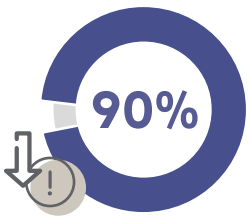


51% increase in handoffs adhering to **all 5 mnemonic elements across both Units**

Rate of Harms

The Harms to Patients Survey asks respondents to reflect on their perception of whether any major or minor harms may have occurred as a result of problematic handoff over the past 7 days.

Time Period	# Reported Days Worked	# Reported Harms	Rate of Minor Harms/100 Days Worked
Baseline (n=60)	187	13	6.95
Post Go Live (n=57)	148	1	0.68



90% fewer reported harms

Reflecting on Success and Looking Ahead

Overall, I-PASS implementation at CGCH was extremely successful. Leadership as well as the CGCH staff and the I-PASS implementation team are pleased with the process and ultimate adoption rate of the handoff bundle. Noted Nan Henderson, CGCH's I-PASS Coach, "The implementation at CGCH was unique—the team was easy to work with and stayed on track throughout the project."

Typically, implementation focuses on adopting the I-PASS Handoff Bundle during shift change within the units identified initially. Then, once it has been adopted and well utilized, facilities explore how to implement I-PASS into other transitions, such as from the ED to inpatient units. This process wasn't explicitly planned for the CGCH team as it's usually part of the sustainment phase. However, the CGCH team recognized the natural progression and took the initiative to start using the I-PASS Handoff Bundle in transitions from the ED to Med-Surg. This step exemplified their level of buy-in, engagement, and goals for sustainment.

Ultimately, leadership are pleased with the positive financial impact that the I-PASS Handle Bundle has had on the organization. For example, the CGCH team added "specimen collection" as a hardwired component of the handoff report. Providing a structured template in which this is a required field serves as a reminder to collect the specimen and communicate it from one shift to the next. Early reports indicate that this has contributed to a decreased average length of stay, Bailey noted, adding that CGCH looks forward to realizing the full impact of the I-PASS Handoff Bundle on its bottom line.

Early reports indicate that this has contributed to a decreased average length of stay, Bailey noted, adding that CGCH looks forward to realizing the full impact of the I-PASS Handoff Bundle on its bottom line.

While implementation went well, the CGCH team did face a couple of roadblocks on their journey. Their main challenge concerned completing and reporting ongoing observations, as the number of observations was lower than expected. "Implementing was not an issue; in sustainment, we had to help the team understand the value of continuing observations. Since then, we've adjusted the measures to ensure CGCH is meeting their quality assurance goals," said Henderson. **I-PASS emphasizes that maintaining ongoing observation and feedback is key to assessing culture change, understanding sustainment, and informing Plan-Do-Study-Act (PDSA) cycles.**

As CGCH continues the sustainment phase, Bailey and her team plan to monitor ongoing improvement and sustainment with a smaller sample of observations. A key driver of adoption and sustainment is the occurrence of ongoing observations and feedback. The Implementation Project Team regularly reviews observers' submissions for insight on where further reinforcement may be needed as well as opportunities for celebrating the team's improvement. Additionally, they have begun conducting transitions from the ED to Med-Surg in the I-PASS structure, and are exploring expansion to other facilities in the Carilion system.

About Carilion Giles Community Hospital

Carilion Giles Community Hospital (CGCH) is a modern, 25-bed critical access hospital located in Pearisburg, Virginia. CGCH offers emergency services that are recognized nationally for quality and patient satisfaction, in addition to high-quality inpatient care and an extended care recovery program (Swing Bed) that gives eligible patients an opportunity to grow stronger before going home. CGCH is part of a six-entity system that also includes two academic hospitals and one additional critical access hospital.

Patient Beds
25

Frontline Nurses
50

Clinical Staff
260

About I-PASS

The I-PASS Patient Safety Institute is a clinical leader in patient safety, enabling a standard of care for patient handoffs and closed-loop communication. Founded by clinicians in 2016, the I-PASS Institute leverages expert mentorship paired with technology and digital tools to scale the I-PASS methodology. The I-PASS Institute's solution, the I-PASS Bundle, consists of three core technical components: I-PASS Training, I-PASS Assessment and Improvement, and I-PASS eVIEW. When all three platforms are used in unison and with the guidance of an expert coach, institutions are able to reduce patient harm caused by miscommunication. The I-PASS Bundle is currently implemented at more than 100 institutions in areas ranging from pediatrics and residency programs to nursing and transitions of care with families.

1 Chan, G.K., Bitton, J.R., Allgeyer, R.L., Elliott, D., Hudson, L.R., Moulton Burwell, P., (May 31, 2021) "The Impact of COVID-19 on the Nursing Workforce: A National Overview" OJIN: The Online Journal of Issues in Nursing Vol. 26, No. 2, Manuscript 2.

2 American Medical Association & American Medical Association. (2022, September 15). Pandemic pushes U.S. doctor burnout to all-time high of 63%. American Medical Association. https://www.ama-assn.org/practice-management/physician-health/pandemic-pushes-us-doctor-burnout-all-time-high-63

info@ipassinstitute.com
+1 (888) 442-3899
Boston, MA 02114

I∞PASS®
PATIENT SAFETY INSTITUTE