**tiger**connect

Clinical Communication Guide:

# The 5 Most Vulnerable Patient Handoff Scenarios

# Contents

# Introduction

By now you've seen The Joint Commission's often-quoted statistic that nearly **80% of serious medical errors** involve miscommunication during the handoff between providers and care settings.[1]

Statistics are compelling, but here's what that actually looks like in health systems throughout the country:

! A patient **waits almost 18 hours** for a pneumonia diagnosis because no one told the pulmonologist that the patient had in fact arrived to the floor for assessment.

! A heart patient's medication dosages were not communicated to the home help agency, **the patient reverts to the old medication dosages** after discharge is readmitted to the hospital.

! Following a knee replacement, a patient is inadvertently discharged to a skilled nursing facility that is not equipped to handle the customized rehab program prescribed by the orthopedic surgeon. **The patient does not completely regain full mobility**.

The newest clinical communication technology is designed to close those dangerous gaps. Evolving far beyond simple asynchronous texting, the top clinical communication platforms offer advanced collaboration tools to ensure that critical patient information makes it safely from one care setting to the next.

1. https://www.jointcommission.org/assets/1/18/Hot_Topics_Transitions_of_Care.pdf

# **Patient Handoff 1**
## ED Throughput

The unpredictability and acuity of the Emergency Department makes it particularly susceptible to the dangers of inefficient communication during transitions of care. Nearly 10 years ago, a study published in BMC Emergency Medicine regarding errors in the ED recommended interventions to improve collaboration between the ED and other hospital departments.[2] Communication technology took up the mantle, offering intuitive tools that can all be accessed from one communication platform. These are just a few examples of how they're being utilized for ED throughput.

2.   https://www.medscape.com/viewarticle/709164



2
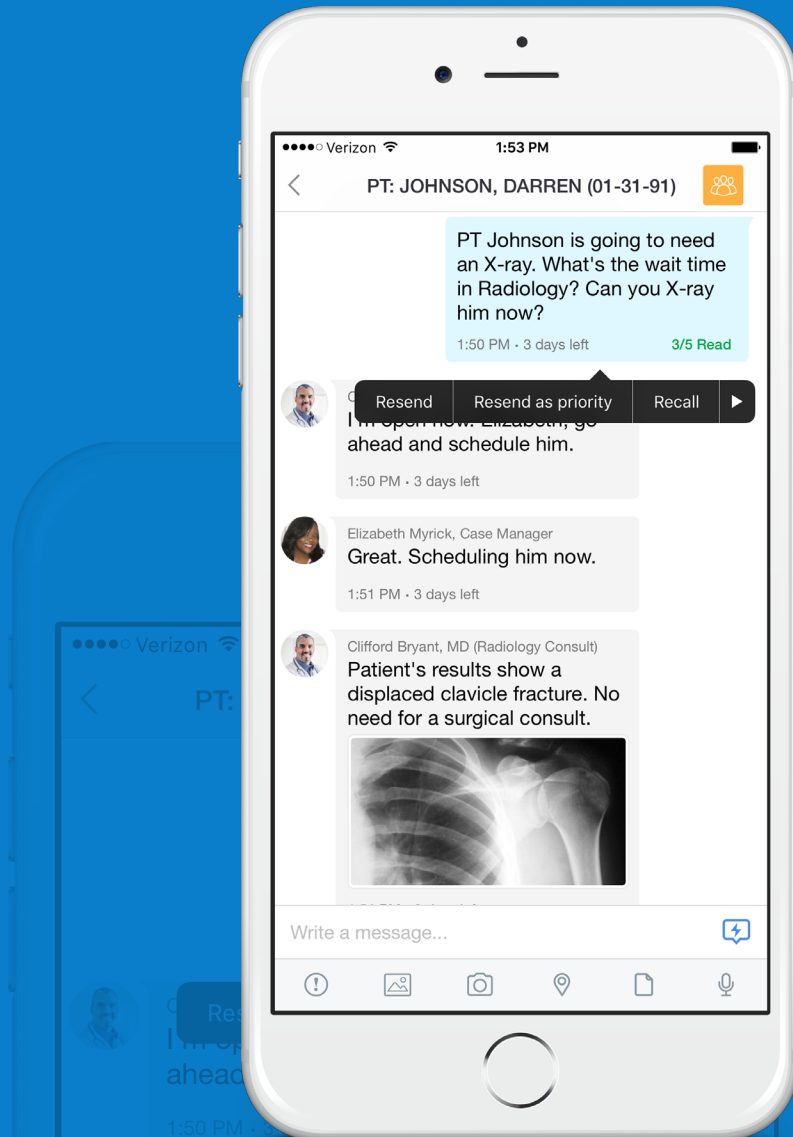
# Patient Handoff 1
## ED Throughput

### Door-to-Balloon Time

In the years since the American College of Cardiology identified door-to-balloon times of less than 90 minutes (and ideally less than 60 minutes) as a life-saving metric,[3] hospitals have worked arduously in modifying workflows to reduce ED delays.

Danville Regional Medical Center in Virginia ranks high among the nation's hospitals in door-to-balloon times by connecting several hospital departments with the TigerConnect clinical communication platform. EMS technicians can send EKG photos from the field directly to an ED physicians who ED notifies the cath lab so the patient is able to bypass the ED entirely and is taken straight to the cath lab for a stent procedure.

### Efficient Consults

Waiting for consults can present a dangerous black hole for patient care in the ED, with wait times routinely clocking in at four to five hours. Extended delays could transition care to no one, in effect, as ED staff puts the patient on hold pending diagnosis and orders from a specialist.

Communication technology that links a facility's shift schedule with specific roles is helping eliminate this gap by enabling one-touch messaging to on-call specialists by role rather than just by name. Critical time is saved that was once spent searching for a paper call schedule or leaving messages with an operator. The correct physician is notified of the need for a consult immediately, with full patient details sent directly to the physician's smartphone.
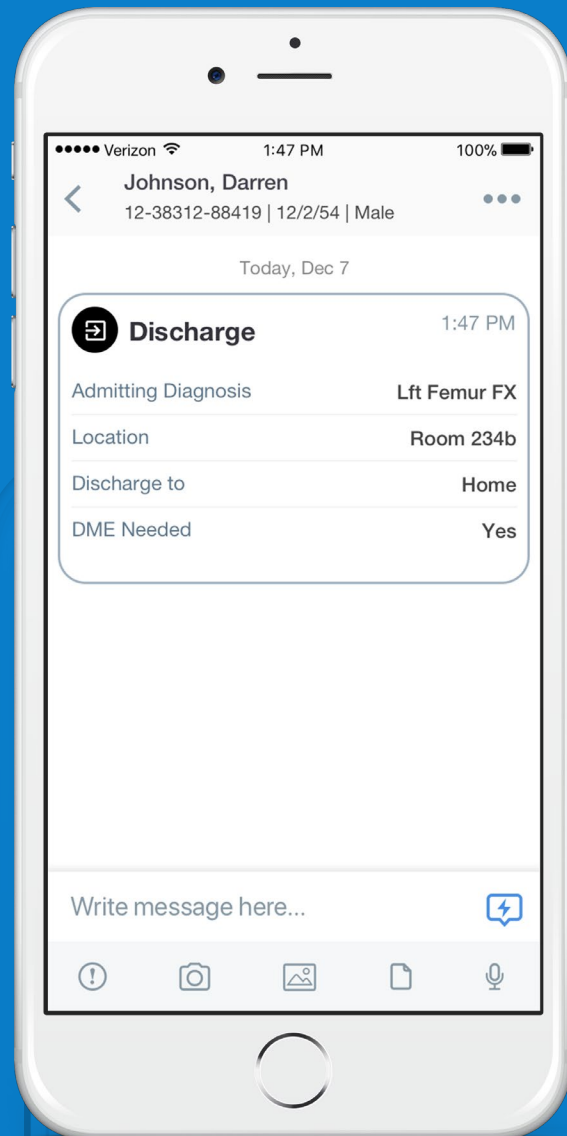
### Faster Transport

New York-based **Westchester Medical Center** struggled with inefficiencies as they transferred nearly 10,000 patients each year from the ED to other facilities in its eight-campus health system. The HIPAA-compliant communication platform not only reduced transport times by an average of 13.3 minutes per patient—a staggering figure across 10,000 transfers per year—but also enabled the complete handoff of critical patient information with no details lost in translation. One facility even saw a 34-minute improvement in its transport time.

3. http://www.acc.org/latest-in-cardiology/articles/2016/11/29/10/30/door-to-balloon-10-years-later

# Patient Handoff 2:
## Acute-Care to Home

The transition from hospital to home is fraught with risks for relapse or readmission. Nearly 2,600 hospitals will face CMS reduced-reimbursement penalties in FY 2018 as a result of their readmission rates. That number represents about 80% of hospitals evaluated by CMS.[4]

While health systems target numerous efforts to reduce readmission rates, a study conducted by the Harvard Business Review suggests that communication between caregivers and patients would have the single biggest impact.[5] A primary reason: Only one in four adults understands their discharge instructions, according to a study reported by Medscape.[6]

4.  https://www.advisory.com/daily-briefing/2017/08/07/hospital-penalties
5.  https://hbr.org/2015/09/what-has-the-biggest-impact-on-hospital-readmission-rates
6.  https://www.medscape.com/viewarticle/864966#vp_1

# Patient Handoff 2
## Acute-Care to Home

Improving the communication around the patient is the remedy for the discharge abyss. Here's how aligning the care team improves the hospital-to-home handoff.

### Patient Contextual Communication
When care team members don't have access to the most current patient information, patients receive conflicting instructions. That's how a patient waits four days instead of two to follow up with his primary care physician or how a home help nurse inadvertently puts a patient back on his old medication dosages. Further, failure to include case managers and social workers in the discharge planning often means that an oxygen tank doesn't get ordered or that a therapeutic bed is delivered days later than expected.

Bottom line: The whole care team needs to be on the same message thread. For example, by connecting case managers, nurse navigators, clinicians and other allied professionals, **Jefferson Health** in New Jersey reduced congestive heart failure readmissions by 22.2 percent.

7.  https://www.eurekalert.org/pub_releases/2015-03/uocd-hap032515.php
8.  http://www.annfammed.org/content/13/2/115.full

### Automated Alerts
A study conducted at the School of Medicine of the University of Colorado recently shined a spotlight on poor communication between hospitalists and primary care physicians.[7] Communication was so infrequent, the study found, that in some cases primary care physicians were unaware their patients had been hospitalized at all.

Automated Admission, Discharge and Transfer (ADT) alerts are completely eliminating this dangerous handoff gap. Utilizing industry-standard HL7 protocol, ADT alerts notify primary care physicians in real time that their patients have been admitted to or discharged from the hospital. The PCP's office staff can contact patients to schedule follow-up appointments. For patients with multiple chronic conditions who are deemed at high risk for readmission, outpatient follow-up has been shown to reduce readmissions by nearly 20 percent.[8]

### External Messaging Functionality
Clinical communication platforms lose their efficacy when clinicians can't reach all their colleagues. This type of "message anyone" functionality ensures, for example, that a hospitalist can securely text a patient's primary care physician to discuss discharge information and outpatient follow-up.

# Patient Handoff 3
## Acute-Care to Post-Acute

Securing the most appropriate post-acute fit is among the greatest handoff challenges, according to Joanna Edge, RN, BSN, an informatics nurse with experience in both the acute and post-acute settings. Each patient's unique set of requirements—rehab services, memory care, the ability to handle specialized equipment such as a ventilator—makes each transfer from acute to post-acute an individualized effort from beginning to end.

"Meeting that criteria and making sure the patient goes to the right setting are a big part of what happens at handoff," notes Edge, who is also Director of Enterprise Sales for TigerConnect.

"If you're in a rural area, sometimes those facilities are not easily accessible. A lot of due diligence is required to make sure you're getting the patient to the right place."

A recent study published in Health Affairs, suggests that not all providers are making the effort, and some mistakenly think they're prevented from providing assistance because it would interfere with CMS patient choice mandates.[9] The researchers found that families across the U.S. were merely handed a lengthy list of regional skilled nursing facilities—without quality data or specialization information—and told to choose. Most families chose the nearest facility.

In fact, nothing precludes hospitals from helping patients make informed choices, the researchers noted. And, 75 of the 98 families interviewed for the study said they would have been willing to travel farther to receive care from a better-quality facility.

Now that health systems are being held more accountable for patients' post-discharge progress, some are having success by creating preferred networks of post-acute facilities. Atrius Health, for example, found average lengths of stay to be six days shorter and hospital readmissions 25 percent lower for patients using their preferred network.[10]

In addition to quality considerations, preferred networks offer another obvious advantage: The opportunity and access to connect both sides of the handoff with efficient and effective communication tools.

9.  https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5583521/
10. http://www.modernhealthcare.com/article/20150509/MAGAZINE/305099987

# Patient Handoff 3
## Acute-Care to Post-Acute

### Customized Transitions of Care Workflows

The most sophisticated clinical communication companies draw on experience from thousands of facilities nationwide to help set up customized workflows for patient handoffs. Reviewing procedures and practices from the acute and post-acute facilities, consultants design workflows that take advantage of cutting-edge technology.

**Admit**     8:14 AM

| | |
|---|---|
| Date | Dec 5, 8:14 AM |
| Location | RM 203 |
| Admitting Physicians | Hospitalist (Role) |
| Admitting Diagnosis | S/P MVA |

**Add Care Team Member**

**Crtical Lab Result:**     9:41 AM

| | |
|---|---|
| Patient | Johnson, Darren |
| NRIC | 12-38312-88419 |
| Lab | Biochemistry Calcium |
| Result | CA 3.25 mmol/L |

**Accept**

**Decline**

- **Group messaging** can be leveraged to connect physicians and nurse navigators on the acute end to intake coordinators and floor nurses at the skilled nursing facility. Arrivals can be timed to the minute.

- **Role-based automated scheduling and messaging** allows coordinators to reach the specialist who is on call to receive the patient. Shift changes are no longer an impediment to smooth patient handoffs.

- **Automated alerts** notify primary care physicians in real time of their patients' transfers and discharges. They can review discharge orders and reconcile medications as patients begin post-hospital care regimens.

- **Lab and PACS integration** sends critical results directly to the smartphones of the care team members. Discharge and transfer delays due to missing test results are eliminated.
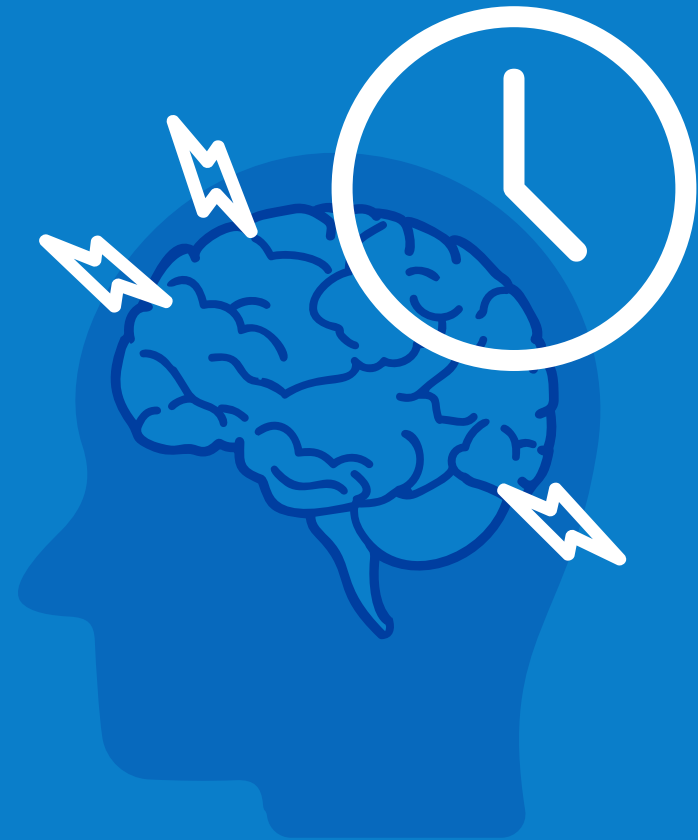
# Patient Handoff 4
## In-Hospital Acuity Transfers

Changes in acuity are critical points when patient information can be missed or dropped between care settings, notes Karen Kennedy, RN, MBA, and Vice President of the Southern California Chapter of HIMSS. Care delays during elevations in patient acuity recently contributed to several adverse events and two deaths at a Pennsylvania hospital.[11] A three-hour delay in calling the rapid-response team for a septic shock case resulted in brain death for a pediatric patient. In another case, a nurse documented a need to initiate a "brain attack protocol" on a patient suspected of having a stroke. More than two hours later, she was still "awaiting further orders."

Step-down transitions can be dangerous, as well. A patient moving from the watchful care of the ICU down to a medical-surgical floor can easily relapse, Kennedy says. That's when medication orders may be lost or a contraindication may be overlooked.

"Medication administrations, handoffs and questions—sometimes it's a simple question, but if you ask it through the EHR, the physicians and clinicians can't always keep up on their emails," Kennedy notes. "If they have a text in their hands, or an automated message to the right person, that's where lives can be saved."

11. https://www.beckershospitalreview.com/quality/hershey-medical-center-cited-for-care-delays-that-contributed-to-2-patient-deaths.html

# Patient Handoff 4
## In-Hospital Acuity Transfers

**Team-Based Messaging and Code Alerts**

A review published in Surgical Neurology International emphasized the significant patient safety benefits to the team approach to care.[12] On a clinical communication platform, those teams can be managed and activated in seconds and with 100 percent reliability. Role-based scheduling ensures the correct on-call team member receives the notification; there is never a need to pass around pagers.

**Nurse Call Notifications**

On lower-acuity floors, a change in an EKG may not be detected quickly enough if a nurse is in another room. When critical patient alarms are sent directly to the smartphone of the correct nurse, precious time is saved in the escalation of care. The nurse most familiar with the patient's condition is able to connect with the appropriate physicians or clinical teams for rapid handoff to higher acuity settings.

**Critical Reports**

Dangerous gaps in the test reporting chain were illustrated in the 2008 case of a Virginia woman who died of a pulmonary embolism two days after a sonogram revealed a deep vein thrombosis.[13] After becoming frustrated with the referring physician's answering system, the radiologist broke protocol and neglected to report the findings directly to the physician. Court documents show he faxed the written report, but the referring physician didn't read it in time to initiate life-saving anticoagulant therapy. The court ruled against the radiologist.

Today, referring physicians can receive critical test results on their smartphones the moment they're complete. Direct communication of actionable results ensures that the patient will be moved quickly and safely to the next level of care.

12. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4173201/
13. https://www.ajronline.org/doi/pdf/10.2214/AJR.08.1954

# Patient Handoff 5
## Shift Changes

With nurse shifts changing every eight to 12 hours, and regulations limiting work hours for resident physicians, much of the transitions of care research literature is focused on shift handoffs and sign-outs. In response to concerns that duty-hour restrictions increased the number of handoffs and patient experiences, The Joint Commission mandated in 2006 that all hospitals maintain a standardized approach to handoff communication, and the Accreditation Council for Graduate Medical Education required beginning in 2010 that all students receive formal handoff training.[14]

14.  https://psnet.ahrq.gov/resources/resource/28485

# Patient Handoff 5
## Shift Changes

After the groundbreaking I-PASS study demonstrated a 23% reduction in preventable adverse events in 2013, the I-PASS model became the gold standard for effective shift-change handoffs.[15, 16] The I-PASS mnemonic stands for:[16, 17]

Despite considerable attention on improving communication at shift changes, communication technology lagged behind with antiquated operator call systems and unreliable pagers. Without the technology to support efficient handoffs, paper patient lists and clinician telephone tag persisted, severely limiting the progress of ambitious patient handoff programs.
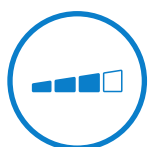
**Illness Severity** - One-word summary of patient acuity, such as "stable" or "unstable"

**Action List** - To-do items, timeline and ownership Situation Awareness and Contingency Plans—Directions to follow in case of changes in the patient's status

**Patient Summary** - Brief summary of the patient's chief complaint, events leading up to admission, and treatment plan

**Situation Awareness and Contingency Plans** - Directions to follow in case of changes in the patient's status

**Synthesis by Receiver** - The receiving clinician summarizes what was heard, asks questions and restates key action items to confirm the care plan

15. https://psnet.ahrq.gov/resources/resource/28485
16. https://psnet.ahrq.gov/primers/primer/9/handoffs-and-signouts
17. https://ipassinstitute.com/wp-content/uploads/2016/06/I-PASS-mnemonic.pdf

# Patient Handoff 5
## Shift Changes

The newest comprehensive clinical communication platforms, however, can now handle the challenge.

### One-to-One Messaging

Secure texting with the oncoming scheduled clinician not only ensures direct communication but also provides a written record that can be referenced later in the shift if a patient's status changes unexpectedly or a question arises. In addition to the key I-PASS clinical findings, text messaging can also relay hallway conversation communication, such as "Mom is anxious" or "the family is currently at bedside"— information that does not need to become part of the patient record but is nonetheless essential for patient care.

### Voice & Video Calling

Clinicians can initiate VoIP-based video and voice calls to colleagues with a single tap from a message thread or user profile. The caller's name, role, and profile photo are displayed, while personal data such as phone numbers remains masked. After reviewing text-based handoff notes, a physician or nurse can execute "Synthesis by Receiver" by tapping the call button to continue the conversation as a voice call when clarification is needed.

### Patient Lists

A study referenced in a Kaiser Health News article identified a handoff risk they call the "portfolio effect."[18] When signing out to colleagues, clinicians tend to spend more time on the patients at the top of the list and may shortchange the patients at the end of the list. That's not a problem if clinicians round on patients in order of acuity. However, researchers noted the extremely common practice of rounding by bed number or room number.

Advanced clinical communication platforms offer the ability to generate patient lists. Automating this essential function ensures that highest-acuity patients receive the handoff time they require.

### Role-Based Delivery of Critical Results

The only thing more dangerous than a delayed test result is a missed one—and that happens frequently during shift change when the oncoming physician doesn't know a test was ordered or isn't alerted to watch for a report. Critical lab and imaging results can be routed by role or by user's name directly to the smartphones of the on-call residents or specialists—the moment they become available. For a health system, that means actionable results will never again languish in the inbox of an off-duty physician.

18. https://khn.org/news/hospital-shift-changes-a-dangerous-time-for-patients/

# Conclusion

At this point, it's fair to say that improving handoff communication can significantly improve patient outcomes while relieving the unnecessary burden on staff, transport teams, primary care physicians, home care workers, and a patient's family. For the highest return at the lowest investment of time and effort, we recommend focusing on the five areas below:

- ED Throughput
- Acute-Care to Home
- Acute-Care to Post-Acute
- In-Hospital Acuity Transfers
- Shift Changes

To discuss these and other strategies with a TigerConnect expert, we invite you to reach out using the contact information and we'd be happy to chat further.

## About TigerConnect

As healthcare's largest provider of clinical communication solutions, TigerConnect helps physicians, nurses, and other staff communicate and collaborate more effectively, accelerating productivity, reducing costs, and improving patient outcomes. With 6,000 facilities, 99.99% uptime, and over 10 million messages processed each day, TigerConnect continually delivers advanced product innovations and integrates with critical hospital systems such as the EHR, nurse call, and scheduling solutions.

The company's commitment to client success is reflected in its broad support organization that works directly with clients at every stage to streamline communication workflows and achieve the highest possible ROI.

For more information, visit **www.tigerconnect.com** to learn how clients like RWJBarnabas, Geisinger, and LifePoint are using TigerConnect to solve healthcare's biggest communication challenges.

**Visit:**
**www.tigerconnect.com**

**Call:**
**800-572-0470**