

Sentinel Alert Event

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Published for Joint Commission-accredited organizations and interested health care professionals, *Sentinel Event Alert* identifies specific types of sentinel and adverse events and high risk conditions, describes their common underlying causes, and recommends steps to reduce risk and prevent future occurrences.

Accredited organizations should consider information in a *Sentinel Event Alert* when designing or redesigning processes and consider implementing relevant suggestions contained in the alert or reasonable alternatives.

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Inadequate hand-off communication

Health care professionals typically take great pride and exert painstaking effort to meet patient needs and provide the best possible care. Unfortunately, too often, this diligence and attentiveness falters when the patient is handed off, or transitioned, to another health care provider for continuing care, treatment, or services. A common problem regarding hand-offs, or hand-overs, centers on communication: expectations can be out of balance between the sender* of the information and the receiver. This misalignment is where the problem often occurs in hand-off communication.

Potential for patient harm – from the minor to the severe – is introduced when the receiver gets information that is inaccurate, incomplete, not timely, misinterpreted, or otherwise not what is needed. When hand-off communication fails, many factors are involved, such as health care provider training and expectations, language barriers, cultural or ethnic considerations, and inadequate, incomplete or nonexistent documentation, to name just a few.

This alert provides advice to **senders** and **receivers** of hand-off communication, including communication between caregivers within hospitals and other health care settings, as well as between hospital caregivers and those not located in a hospital. Senders are responsible for sending or transmitting patient data and releasing the care of the patient to receivers, who have been identified as those who will receive patient data and accept care of the patient. This alert makes the basic assumption that the hand-off already involves the correct receiver, sender and patient.

While it sounds simple, a high-quality hand-off is complex. Failed hand-offs are a longstanding, common problem in health care. In 2006, The Joint Commission established a National Patient Safety Goal that addressed hand-off communication. In 2010, the requirement became a standard. Provision of Care standard PC.02.02.01, element of performance (EP) 2, requires that: *The organization's process for hand-off communication provides for the opportunity for discussion between the giver and receiver of patient information. Note: Such information may include the patient's condition, care, treatment, medications, services, and any recent or anticipated changes to any of these.*

Nevertheless, gaps in communication during hand-off processes continue to exist, thereby increasing patient safety risk.^{1,2} The problem is compounded by the high frequency of hand-offs in health care, especially in hospitals. It's estimated that a typical teaching hospital may experience more than 4,000 hand-offs every day.³ However, sometimes hand-offs are conducted too casually, when they should be structured and focused to ensure continuity of care.

* For the purposes of this alert, the sender is the individual who provides the clinical information to the receiving caregiver.



Finding contributing factors and solutions

Inadequate hand-off communication is a contributing factor to adverse events, including many types of sentinel events.² The Joint Commission's sentinel event database includes reports of inadequate hand-off communication causing adverse events, including wrong-site surgery, delay in treatment, falls, and medication errors. A study released in 2016 estimated that communication failures in U.S. hospitals and medical practices were responsible at least in part for 30% of all malpractice claims, resulting in 1,744 deaths and \$1.7 billion in malpractice costs over five years.⁴

From the literature, contributing factors to hand-off communication breakdowns include insufficient or misleading information, absence of safety culture, ineffective communication methods, lack of time, poor timing between sender and receiver, interruptions or distractions, lack of standardized procedures, and insufficient staffing.⁴⁻¹⁰ A study by the Accreditation Council for Graduate Medical Education (ACGME) found that 69% of clinical learning environments did not have a standardized hand-off process, and only 20% had some standardization.¹¹

Research and quality improvement efforts

A considerable body of literature exists on improving hand-offs using a variety of methods and tools,^{2,5-10,12-21} including forms and checklists as well as team training derived from evidence-based frameworks¹² and an SBAR (Situation, Background, Assessment, Recommendation) information technology (IT) tool.¹

Successful hand-off improvement programs have the potential to substantially improve patient safety. For example, I-PASS is a multifaceted handoff improvement program that bundles together multiple complementary interventions to improve hand-offs and sustain improvements over time. This program applies a structured approach to communication for patient transition, using the mnemonic "I-PASS," which stands for Illness severity, Patient summary, Action list, Situation awareness and contingency plans, and Synthesis by receiver. Nine medical centers implementing this program over the course of 10,740 patient admissions reduced preventable adverse events by 30% and medical errors by 23% during the intervention period.⁸ These results were published in the *New England Journal of Medicine*.⁸ To date, the program has been adopted by more than 50 hospitals. See the

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Failed hand-off communication scenario

The following scenario illustrates a failed hand-off communication, where the critical information that the receiver needs to manage the patient is not provided.

A 26-year-old U.S. soldier sustained injuries after he walked over an improvised explosive device in Afghanistan. His right arm and right leg below the knee were amputated during trauma surgery. He also suffered moderate brain injury and intermittent pain.⁵

Back home, in a health care facility, he experienced memory deficits and occasional agitation. Unaccompanied by family members, he arrived at a second facility, a rehabilitation unit, with a patient-controlled analgesia (PCA) pump and urinary catheter. Once there, he became agitated, confused, and frequently tried to get out of bed.

An admitting nurse at the rehabilitation unit struggled during the initial assessment of this confused patient as a result of not knowing why the patient had a PCA pump and an indwelling catheter, and why he was unaccompanied.

Resources section of this alert for examples and meanings of mnemonics, including I-PASS.^{1,5,7-8,10,17}

Actions suggested by The Joint Commission

Each health care setting has its own issues and challenges relating to hand-offs. The Joint Commission emphasizes the importance of health care organizations using a process that identifies causes for hand-off communication failures and barriers to improvement in each setting, and then identifies, implements, and validates solutions that improve performance.

1. Demonstrate leadership's commitment to successful hand-offs and other aspects of a safety culture.^{5,12}

- Focus on improving the organization's systemic approach to hand-offs, rather than singling out individual errors.⁵
- Provide support, time and budget resources to hand-off quality improvement initiatives.¹² Improving and sustaining consistently successful hand-off communication throughout an entire health care organization likely requires a significant time investment in

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team training and other activities designed to improve quality performance.⁸ Developing an institutional respect for hand-offs requires buy-in from all disciplines, and all disciplines need to incorporate changes into practice and culture.

- Make successful hand-offs an organizational priority and expectation.¹²

2. Standardize critical content to be communicated by the sender during a hand-off – both verbally (preferably face to face) and in written form. Make sure to cover everything needed to safely care for the patient in a timely fashion. Standardize tools and methods (e.g., forms, templates, checklists, protocols, mnemonics) to communicate to receivers.^{2,5-10,12-16,21}

- Avoid making hand-offs using solely electronic or paper communications. If face-to-face communication is not possible, communicate in real time via telephone or video conference.⁵⁻⁶ Provide ample time and opportunities to ask questions.¹³
- Communicate and receive hand-off content in a timely way⁸ to ensure delivery of appropriate care and services.
- Synthesize information from disparate sources rather than communicating them separately.
- Ensure that, at a minimum, the critical content to communicate to the receiver includes:⁸
 - Sender contact information
 - Illness assessment, including severity
 - Patient summary, including events leading up to illness or admission, hospital course, ongoing assessment, and plan of care
 - To-do action list
 - Contingency plans
 - Allergy list
 - Code status
 - Medication list
 - Dated laboratory tests
 - Dated vital signs
- Use mnemonics – such as I-PASS – to structure hand-off communication and help team members to perform hand-offs more consistently. Keep in mind that the mnemonic is only a framework, and it should be supported with other elements, such as training and cultural change. See the Resources section of this alert for examples of other mnemonics.^{1,5,7-8,10,17}

Critical content to communicate to the receiver during a hand-off should include:⁸

- Sender contact information
- Illness assessment, including severity
- Patient summary, including events leading up to illness or admission, hospital course, ongoing assessment, and plan of care
- To-do action list
- Contingency plans
- Allergy list
- Code status
- Medication list
- Dated laboratory tests
- Dated vital signs

3. Conduct face-to-face hand-off communication and sign-outs between senders and receivers in locations free from interruptions and include multidisciplinary team members and the patient and family, as appropriate.^{2,5-6,8,13,16,18,21}

- Have a consistent location and time for sign-outs.⁵⁻⁶
- Establish a workspace or setting conducive for sharing information about a patient, such as a zone of silence, free of non-emergency interruptions.^{5-6,13}
- Provide sender and receiver contact information for follow-up.^{9,15}
- Share and receive information – as a multidisciplinary team – with the patient and family there at the same time.^{5-6,9,12,15} Use this time to consult, discuss, and ask and answer questions.⁶
- While engaging patients and family in care transitions whenever possible is encouraged, do not rely on the patient or family members to communicate vital information about their care on their own to providers receiving referrals or hand-offs.

4. Standardize training on how to conduct a successful hand-off – from both the standpoint of the sender and receiver.^{8,12}

- Engage staff in training using methods such as real-time observation and performance feedback, role-playing and simulation, and independent learning.^{8,12,22}
- Identify champions and coaches to promote quality improvement and serve as role models.¹² Provide positive reinforcement to employees who perform hand-offs according

to the standardized process. Take opportunities to use successful hand-offs as exemplars.

- Emphasize teamwork, trust, situational awareness, roles and responsibilities, conflict resolution, and safety culture in training exercises.¹²⁻¹³
- Encourage supervisors and staff to dedicate ample time and opportunities to ask questions.¹³

5. Use electronic health record (EHR) capabilities and other technologies — such as apps, patient portals and telehealth — to enhance hand-offs between senders and receivers.^{6-8,13,15,23}

- Once a standardized hand-off communication process (including written discharge instructions) is established, incorporate it into workflow and integrate it into the EHR application.^{8-9,15,23}
- Facilitate ongoing communications and feedback loops between senders and receivers by providing as much critical information as possible, including the complete care plan, via EHRs and other forms of electronic communication.^{6-8,13,17,23}
- Provide EHR access and education about how to use it to all patient care staff.²³
- Support the use of online patient portals,²³ especially for medical record access, prescription refills, lab and diagnostic results review, and appointment making.

6. Monitor the success of interventions to improve hand-off communication and use the lessons to drive improvement.^{7-8,13-15,17,20,24}

- Monitor the effectiveness of team members' use of standardized forms, tools and methods for hand-offs.^{10,14-15,17,23} When a hand-off works well, find out what facilitated that communication, the attributes of the hand-off, and the tools used.
- Measure the specific, high impact causes of a poor hand-off, and target solutions to those causes.
- Collect data derived from adverse events with poor hand-offs as a contributing factor, and use these data as the basis for a systematic organizational approach to performance improvement.^{7,9,13,18,20,24} During the adverse event analysis/review, evaluate the quality of the hand-off, and look for the lost opportunities in hand-off communication. Integrate those lessons into the

organization's overall performance improvement plan. Inadequate hand-off communication is one of the major contributing factors to adverse events; therefore, improving hand-offs should be part of the corrective actions.

7. Sustain and spread best practices in hand-offs and make high-quality hand-offs a cultural priority.

- Hand-offs should be highly reliable, conducted in a high-quality manner for every patient, every day, with every transition of care.
- Achieving this level of performance requires strong leadership, resources, and effective implementation of a program for longitudinal monitoring, reinforcement, and improvement of hand-off practices, with the ultimate goal of having best practices integrated into the organization's cultural norms and expectations.

Related Joint Commission requirements

Earlier in this alert, PC.02.02.01, EP 2, was mentioned as specifically addressing hand-off communication. This standard applies to hospitals and critical access hospitals; ambulatory care, behavioral health care and home care settings; and nursing care centers. (For behavioral health care, this requirement is Care, Treatment, and Services standard CTS.04.01.01, EP 3, and it includes program-specific language.) In addition to this requirement, organizations should reference the following relevant standards that address hand-offs:

Provision of Care, Treatment, and Services standard PC.02.02.01: *The organization coordinates the patient's care, treatment, and services based on the patient's needs.* (Applicable to hospitals and critical access hospitals, ambulatory care and home care settings, and nursing care centers.)

Performance Improvement standard PI.03.01.01: *The organization compiles and analyzes data.* (Applicable to hospitals and critical access hospitals, ambulatory care and home care settings, and nursing care centers.)

Resources

Mnemonics – Some examples and their meanings are shown below.^{1,5,7-9,17}

I-PASS

Illness severity
Patient summary
Action list
Situation awareness and contingency plans
Synthesis by receiver

ISBAR

Identification
Situation
Background
Assessment
Recommendation

PSYCH (for psychiatric ED hand-offs)

Patient information/background
Situation leading to the hospital visit
Your assessment
Clinical information
Hindrances to discharge

I PUT PATIENTS FIRST

Identify yourself and role and obtain nurse's name

Patient's past medical history (medical, surgical, social)
Underlying diagnosis and procedure
Technique (general anesthesia, neuraxial, regional)

Peripheral IVs, arterial lines, central lines, drains
Allergies
Therapeutic interventions (pain medications, antibiotics)
Intubation (very difficult, moderately difficult, easy)
Extubation likelihood (already extubated, very likely, unlikely, definitely no extubation planned)
Need for drips (e.g., epinephrine, vasopressin, norepinephrine, insulin, propofol)
Treatment plan for postoperative care (blood pressure goals, ventilator settings)
Signs (vital signs during case and most recent)

Fluids (in's and out's, blood product(s), administered)
Intraoperative events (if any)
Recent labs (e.g., hemoglobin, glucose)
Suggestions for immediate postop care (e.g., special positioning, pain control, need for pumps)
Timing/expected time of arrival to ICU

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Patient Safety Advisory Group

The Patient Safety Advisory Group informs The Joint Commission on patient safety issues and, with other sources, advises on topics and content for *Sentinel Event Alert*.