

Handover Communication: Nurses Perspectives

Ramya K.R.

Author Affiliation

Assistant Professor, Jubilee
Mission College of Nursing,
Thrissur, Kerala.

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Ramya K.R., Kundayi
House, Chembamkandam,
Ponnukkara P. O. Thrissur,
Kerala-680306.
E-mail:
raviramya11@gmail.com

Abstract

Hand over communication occur frequently at various stages throughout the patient's stay at hospital and is a fundamental component of patient care. The significance of handover communication came into limelight with the report of Joint Commission International (JCI) in 2005 that as many as 70% of sentinevents were caused by communication breakdowns with half of those occurring during ahand over process. Presently many hospitals in India have no policies and protocols for the safe and efficient transfer communication during handover among health care workers including nurses. Though standardization of hand over is a complex and difficult task, it has the potential to produce great rewards for both patients and nurses. This is especially important in a country like India with the fewest resources and compelling needs, where people cannot afford for quality to fail. To err is human. Errors in health care can and will happen as long as human beings provide health care. Structuring health systems and environments to minimise the human errors in communication requires a strong administrative will and commitment while promoting an organisational culture that put patient safety as the centre of focus.

Keywords: Handover; Communication; Medical Error; Standardization; Sentinal Event.

Transfer of essential information and responsibility from one nurse to another is an important process in clinical nursing practice and an integral component of communication in health care and it is known as a handover [1]. One of the other definitions of handover given by Poh, Parasuram & Kannusamyis "the transfer of professional responsibility and accountability for some or all aspects of care for a patient, or group of patients, to another person or professional group on a temporary or permanent basis". The other terms that are used in synonym include handoff, patient care handover, transfer of accountability, beside handover or shift handover.

During an episode of hospitalization, multiple types of handovers happen in between health care workers with changes in shifts and specialists in multiple activities and locations especially in tertiary

care centres. Handover may happen between the primary care team, specialized outpatient physician/team, emergency care team, surgical care team and rehabilitation or palliative care team. Handover also take place on admission, during shift and unit changes, before and after procedures, between health care workers when break for tea or lunch [2]. Referral to other hospitals, transfer for diagnostic tests, and discharge from hospital is the other points for handover communication among health care workers.

Functions of Handover Process

1. Information processing is the most important function of handover process.
2. Stereotypical narratives, emphasizes highlighting deviations from typical narratives/

details, allergy, preferences etc.

3. Resilience, takes advantage of the transparency of the thought processes revealed through the conversation to identify erroneous assumptions and actions
4. Accountability, emphasizes the transfer of responsibility and authority
5. Social interaction, considers the perspective of the participants in the exchange
6. Distributed cognition, addresses how a transfer to a new care provider affects a network of specialized practitioners performing dedicated roles who may or may not be transitioning at the same time.
7. Cultural norms, relates to how group values in an organization or suborganization are negotiated and maintained over time [3].

Impact of Poor Handover Communication

During a handover process or patient care transition from one provider or unit to another, there involves the transfer of information, primary responsibility, and authority between providers. It is a process which is essential which for maintaining continued care, providing safe and quality care for patients.

Improper communication during change of shift and transitions are identified as one of the primary reasons for medical error and adverse patient outcomes in various international agencies. Joint Commission International has identified communication breakdown as the major contributing factor in nearly 70% of sentinel events, with 75% of adverse events leading to patient death. Of these at least half of communication breakdowns take place during handovers [4]. Patient mortality resulting from medication errors alone are estimated to cause over 7000 deaths annually according to a report of Institute of medicine (2004). In Australia [5] it was found that out of 30 000 preventable adverse events that led to permanent disability, 11% were due to communication issues.

'Don't fumble the handoff' by Andrews C et al from one U.S. malpractice insurance agency's report identified breakdown in communication as the single most common root cause factor leading sentinel event claims resulting from patient transfer [6]. This is supported by the reports of Journal of Advanced Nursing (2012) demonstrating that more than 43% of malpractice claims were related to inaccurate or incomplete patient handoffs and that only 43.9% of

accurate patient information actually reached the patient care unit during a patient transfer. The estimated total national cost (morbidity, loss of household productivity, loss of income, health care cost) of preventable medical errors resulting in adverse events was between \$17 billion and \$29 billion with over one-half of this representing healthcare costs according to IOM report by Van Den Bos, et al (2011).

Cracks in Handover Process

Handing over is a complex exchange of patient information between the sender and the receiver. The sender is responsible for transmitting the patient details, critical information and care of the patient, while the receiver, who receives the critical information for the continual care of the patient. An effective handover communication is timely, accurate, complete, and unambiguous and understood by the recipient. Disconnect occurs between the two if the communication does not include all the essential information, or it is misunderstood. When there is a communication deficit there is a high potential for serious breakdowns in the continuity of care, inappropriate care or treatment, and potential harm to the patient. The method of conveying or exchanging information (verbal or written) and the location of reporting (at bedside or nurse's station) are also some of the influential factors for breakdown in communication process.

As no health care worker can be made available throughout and doctors, paramedics and other care provider's change shift every 6-12 hrs; handover communication becomes an inevitable reality in hospitals creating opportunities for medical error. A substandard hand over may result in omission or duplication of care, delayed or inappropriate treatment, loss of productivity of staff, adverse patient safety events, increased length of hospital stay, increased cost, and avoidable readmissions. It may also lead to wrong patient's identification, wrong site surgery and, sometimes patient death [7] Rabøl LI, Lehmann Andersen M, Østergaard D, et al. Descriptions of verbal communication errors between staff. An analysis of 84 root cause analysis-reports from Danish hospitals. *BMJ Qual Saf.* 2011; 20(3): 268-274. PMID: 21209139.

The prevailing practice of handover education invests in the sender, ignoring the critical role of receiver making communication process incomplete. Deficient handover communication leading to medical error an adverse event can have serious

repercussions straining relationship between the people and departments too. Lack of formal structure for handover report may also result in reporting irrelevant patient information and missing critical information in a timely manner with the existing work time constraints. Frequent interruptions [9] by the patient or other members, poor recall of patient information, stress, fatigue, generational differences, ethnicity, gender, education, and experience are the other factors or variables that complicate a handover communication. Lesser emphasis on the quality of communications and inadequate amount of time provided for hand-over are few organizational factors which makes handover ineffective. As long as human beings provide hospital care, the human factors will predispose to make medical errors.

Though there are 'shift reports' recorded in few hospitals, it is often taped 2 to 3 hours before the actual change of shift. Patient's condition might have deteriorated or improved; often these are not updated or clarified. As it is a concise report and report writing occurs at a busy time with multiple distractions and time constraints, it may result in missing of essential information or capture of documentation of unnecessary information repeatedly.

Considering the heavier patient load and lack of standardized protocols, handover communication can be really challenging in many Indian hospitals. Kumar P et al while studying the handover processes among Indian nurses found significant deficiencies in handover duration and specific time for handover practices especially during the morning shifts and weekends across all wards, in all categories, except bedside handovers and patient communications [10]. Kumar P et al in another study revealed deficient handover practices among doctors and nurses with an overall compliance of 55% [11] and suggested the need for a need for a system approach and greater administrative commitment to ensure a safe and effective handover practices.

Barriers for Standardising Handover Communication

It is often challenging to develop a handover process that is efficient, comprehensive, operationally feasible and based on objective descriptions of the patient's condition. One is that effective handover communication is not regularly or systematically taught to health professionals. Getting the staff to buy in and agree with the handover process is also difficult as this requires a cultural change to overcome the resistance. An efficient, supportive, ancontinuous supervision in the initial phases of implementation can make a long way in

bringing this change. This also invites cost, time and skill training to produce a cultural change among staff. Failure of leadership to require implementation of new systems and behaviours, lack of information technology infrastructure and interoperability may make these processes ineffective. Lack of financial resources and staffing shortages are other factors that may hinder an effective handover communication. Absence of good role models and lack of a system that promotes and rewards autonomy and individual performance are also the other challenges to an efficient handover process. Merely applying a structure may not improve communication if there is a failure to capture relevant information other than that written in progress notes [12]. An over-reliance on technology and standardisation may make handover mechanical leading omission of contextually sensitive information about anticipated events if patient specific context is not taken care off.

Attributes of Effective "Hand-Over" Communications

The primary objective of a 'handover' is to provide accurate information about a patient's/client's/resident's care, treatment and services, current condition, and any recent or anticipated changes. The information communicated during a handoff must be accurate in order to meet patient safety goals [13]. The Joint Commission, Comprehensive Accreditation Manual for Hospitals, NPSG 2E rationale statement, ©2007 Joint Commission Resources, Inc. Oak."

1. Interactive communications allowing for the opportunity for questioning between the giver and receiver of patient information.
2. Up-to-date information regarding the patient's care, treatment and services, condition and any recent or anticipated changes.
3. A process for verification of the received information, including repeat-back or read-back, as appropriate.
4. An opportunity for the receiver of the hand off information to review relevant patient historical data, which may include previous care, treatment and services.
5. Interruptions during hand offs are limited to minimize the possibility that information would fail to be conveyed or would be forgotten [14].

Tips for Improving Handover Communication

1. Prepare a feasible and achievable handover policy and protocol.

2. Involve the staff and other involved health care team in designing the process; shift-to-shift and unit-to-unit.
3. Develop a customized structured tool, such as a handover checklist, detailing what should be covered in a handover at different points of transitions.
4. Use clear language and avoid use of abbreviations or terms that can be misinterpreted.
5. Pilot-test process before implementation. Measure employee satisfaction, patient satisfaction and efficiency in reducing medical errors.
6. Assure smooth handover between settings. simple not cumbersome.
7. Use technology to enhance communication. Electronic records can support the timely and efficient transmission of patient information.
8. Strong leadership support for new processes.
9. Ensure positive relationships between the sending and receiving providers, focus of patient not people/staff.
10. Interdisciplinary team involvement and assigned accountability for transitions-related tasks and Outcomes.
11. Identification of patients/clients at risk well in advance to the handover process.
12. Two-way patient and family education about their role in handover.

Standardizing Handover Process

Patient handover in medicine are astonishingly variable [15], without defined purpose or structure other than to “maintain continuity of care” or to provide some information to the next care provider. Holly and Poletick (2013) in a systematic review of literature supported the above findings that the transfer of information during nurse transitions in care may be random, variable, inconsistent, incongruent, inaccurate or absent and suggested the need for a consistent guideline or framework for an optimal end of shift reporting. It was seen that approximately 20%–30% of information conveyed during handoff updates is not documented in the medical record [16].

Standardized handoff communication is defined as a process in which information about patient/client/resident care is communicated in a consistent manner from one healthcare provider to another (Friesen, et al., 2009). Standardizing and simplifying

handover processes decreases the demand on problem solving and planning while reducing the reliance on memory and serves as a reminder for the steps to be followed. It was also seen that standardized handover process improve communication, team work, collaboration and job satisfaction among nurses [17].

Recent evidences suggest that redesigning the systems of care delivery is the most effective in improving hand-over communication. Designing a system that improves effective and efficient communication by taking advantage of knowledge about human factors (how human beings make errors), building redundancies into the processes of care, creating forcing functions, and reducing the steps in the processes can significantly reduce opportunities for error.

Approaches to Standardizing Handover Process

According to Manser & Foster, (2011) there are two commonly used approaches to the standardization of handover communication. The first is specifically outlining the content and order of information that must be communicated or handed over. Mechanism developed by Catchpole et al. [18] (2007) and Berkenstadt et al. [19] (2008) are examples of content specific standardization.

The second approach utilizes the use of ‘mnemonics’, without defining the exact content, but the topics to be covered and their order. Use of mnemonics or a standard handoff template can ensure information redundancy and error checking. Recent evidences suggest that the ‘flexible mnemonic’ approach is more suitable in clinical handover communication as this helps to cater the wider needs of wide array of patients while communicating adaptively towards a common goal.

In addition to developing a standardized process for handover mechanism, it is of paramount importance to determine the critical content to be communicated during a patient handoff [20] as omissions of content are a major cause of failed communication leading to adverse events [21].

Irrespective of the processes or tool used for standardization of handover the key fields that are applicable to each patient hand over should include admitting diagnosis, co-morbidities, vital signs, allergies, Patient summary (exam findings, laboratory data, any clinical changes, anticipated problems), planned or priority interventions/care, issues requiring intervention including pending laboratory or diagnostic reports, special diets, contingency plans (“If/then” statements), Synthesis of information (e.g.

“read-back” by receiver to verify), family contacts, changes in responsible attending physician, an opportunity to ask questions and review information. A good handover process should focus on establishing a workspace or setting that is conducive for sharing information about a patient while focusing on the system, not just the people.

The written component of the handover may be produced by hand or electronically. Standardized electronic medical record (EMR)-linked handover tools may be a powerful asset for reducing adverse

events. Though computerized handover systems have been demonstrated to improve information completeness, legibility, and accuracy, and are preferred by residents to handwritten handoffs [22], very few are available and tested. Though it may reduce the entry burden by automatically “pulling” data from electronic medical records. The addition of a bedside component is also shown to increase the patient safety and satisfaction, team safety assessment and patient and family involvement in plan of care.

Table 1: Tools for handover communication

Mnemonic	Description
4 P's	<p>Purpose: Why is the patient here? What priorities does she have?</p> <p>Picture: What results are we looking for, both short-term and long-term? How can we picture the patient's current condition?</p> <p>Plan: What did or did not work?</p> <p>Part: What part can you play during the next shift?</p>
5P's v.1	<p>Patient identity</p> <p>Plan of care</p> <p>Purpose of plan: clinical findings supporting plan of care</p> <p>Problems: abnormal findings, pain scale, vital signs</p> <p>Precaution: isolation, falls, etc</p>
5P's v.2 ²³	<p>Patient: identify</p> <p>Precautions: allergies, isolation, falls, specialty bed</p> <p>Plan of care: fluids, intake, output, IV access</p> <p>Problems: assessment, review of systems, pain scale</p> <p>Purpose: goals to be achieved</p>
I-PASS ²⁴	<p>Illness severity: one-word summary of patient acuity (stable/unstable)</p> <p>Patient summary: brief summary of the patient's diagnoses and treatment plan</p> <p>Action list: to-do items to be completed by the staff</p> <p>receiving sign-out</p> <p>Situation awareness and contingency plans: directions to follow in case of changes in the patient's status, often in an "if-then" format</p> <p>Synthesis by receiver: an opportunity for the receiver to ask questions and confirm the plan of care</p>
I PASS the BATON ²⁵	<p>Introduction: Individuals involved in handoff identify themselves, their roles, and jobs.</p> <p>Patient :Name, other identifiers, age, sex, location</p> <p>Assessment: Present chief complaints, vital signs, symptoms, and diagnosis</p> <p>Situation: Current status and circumstances, including code status, level of certainty or uncertainty, recent changes, and response to treatment</p> <p>Safety concerns: Critical lab values and reports, socioeconomic factors, allergies, and alerts (such as risk for falls)</p> <p>Background :Comorbidities, past medical history, current medications</p> <p>Action: Detail what actions were taken or are required and provide a brief rationale for those actions.</p> <p>Timing: Prioritization of actions</p> <p>Ownership: Which team member is responsible?(Nurse, physician)</p> <p>Next: What is expected to happen? What is the plan of care?</p>
SBAR ²⁶	<p>Situation: Complaints, diagnosis, treatment plan, and patient's wants and needs</p> <p>Background: Vital signs, mental and code status, list of medications, and laboratory results</p> <p>Assessment: Current provider's assessment of the situation</p> <p>Recommendation: Identify pending lab results, what needs to be done in the next few hours, and other care recommendations</p>
SOAP ²⁷	<p>Subjective information about the patient's concerns, sensations, and/or behavior related to the problem</p> <p>Objective information related to the problem (e.g., level of consciousness, activity tolerance, effect of medication received, post procedure signs, laboratory values)</p> <p>Assessment of the patient's condition as substantiated with the data from S (subjective) and O (objective) and an indication of the direction of change in the patient's condition</p> <p>Plan of what has or should be done for/with the patient</p>
I-SBAR	<p>Introduction: Who are the individuals involved in the handoff? What are their roles in the patient's care?</p> <p>Situation: Complaints, diagnosis, treatment plan, and patient's wants and needs</p> <p>Assessment: Current provider's assessment of the situation</p> <p>Recommendation: Identify pending lab results,</p>

	Background: Vital signs, mental and code status, list of medications, and laboratory results	what needs to be done in the next few hours, and other care recommendations
ISBARQ or SBAR + 2 ²⁸	Introduction - Who are the individuals involved in the handoff? What are their roles in the patient's care? Situation - What is the patient's diagnosis and treatment plan? Do they have any complaints, wants, or needs? Background - Communicate vital signs, mental and code status, list of medications, and lab results Assessment - What is the current provider's assessment of the situation? Does the current provider anticipate any changes?	Recommendation - Are there any tests or lab results pending? What needs to be done of the next few hours? What is the current provider's recommendation for future care? Q&A Make time for Q&A - Handoffs should be an interactive affair between all parties involved in the handoff.
SBARR ²⁹	Situation: Complaints, diagnosis, treatment plan, and patient's wants and needs Background: Vital signs, mental and code status, list of medications, and laboratory results Assessment: Current provider's assessment of the situation	Recommendation: Identify pending lab results, what needs to be done in the next few hours, and other care recommendations Response or read back
SBAR-T	Situation: Complaints, diagnosis, treatment plan, and patient's wants and needs Background: Vital signs, mental and code status, list of medications, and laboratory results Assessment: Current provider's assessment of the situation	Recommendation: Identify pending lab results, what needs to be done in the next few hours, and other care recommendations Thank patients for opportunity to work with them (note: handoff done at bedside)
SHARED ³⁰	Situation History Assessment	Request Evaluate Document
SHARQ ²³	Situation Task Intent	Concern Calibrate
HANDOFFS ³¹	Hello Assessment Necessary Patient Information Dangers or Risks	Occurrence Framework Future Recommendations
DeMIST ³²	De Patient demographics Mechanism of injury Injuries sustained	Symptoms and signs Treatments given
IMOUTA ³³	I: Identify data M: Medical course OUtcomes possible tonight	T: Responsibilities to do tonight A: Opportunity to ask questions and give morning feedback in the AM.
ASHICE ³⁴	Age Sex History	Injuries Condition Expected time of arrival
The UPDATED Approach ³⁵	Updated administrative data: patient name, room number, code status, allergies, PCP, family contact information, and treatment team Problem list prioritized, accurate and updated. Diagnosis listed in one-line summary Anticipated problems	Too much information: Includes no superfluous data categories, easy to identify problems, and if/then and to-do statements Error-prone medications are clear and correct All medications should be listed clearly and all antibiotics with start dates Directions are clear and concise
STICC ³⁶	Situation Task Intent	Concern Calibrate
AIDET ³⁷	Acknowledge the patient Introduce yourself Duration of the procedure	Explanation of process and what happens next Thank you for choosing our hospital (note: handoff done at bedside)
CUBAN	Confidential Uninterrupted Brief	Accurate Named personnel
GRRRR	Greeting Respectful listening	Recommend or request more information Reward

	Review	
Just Go NUTS ³⁴	Name of patient, diagnosis, room number Unusual or unique; variances, identified on the individual care plan including critical lab values, pain management, etc	Tubes such as IV, NG, catheters, drains, ostomies Safety concerns such as falls, medication reconciliation
PACE ³⁸	Patient/problem: Assessment/actions:	Continuing/changes: Evaluation:

Conclusion

Evidences strongly suggest that accurate handovers decrease harmful events, including patient falls, pressure ulcers, catheter-associated urinary tract infections, medication errors and omissions, central-line infections. Nurses are always exploring ways to streamline activities to ensure accuracy, efficiency, and quality of patient care. A standardized handover process designed to fit the workload and fit different clinical scenarios can significantly enhance patient satisfaction, nurse satisfaction and most importantly patient safety. Hospitals should implement a ‘handover bundle’ standardized approach to handover communication, including the ability to ask and respond to questions, the review of patient’s data, treatment-plan updates and any change in the patient’s condition.

References

- Boyle DK, Kochinda C. Enhancing collaborative communication of nurse and physician leadership in two intensive care units. *J Nurs Adm.* 2004; 34: 60-70.
- Corcoran, R. Hand-offs and Transitions in Care. 2006, February 10. Retrieved October 31, 2006, from Joint Effort New York at <http://jeny.ipro.org/showthread.php?t=488>.
- Patterson, Emily S., and Robert L. Wears. “Patient handoffs: standardized and reliable measurement tools remain elusive.” *The joint commission journal on quality and patient safety.* 2010; 36(2): 52-61.
- Joint Commission International. Sentinel Events. http://www.jointcommission.org/assets/1/6/camh_24_se_all_current.pdf. (Accessed on 05-01-2016).
- Zinn C. 14,000 preventable deaths in Australia. *BMJ.* 1995; 310: 1487.
- Andrews C, Millar S. Don’t fumble the handoff. *MAG Mutual Healthcare Risk Man-ager.* 2005; 11(28): 1-2 http://www.magmutual.com/mmic/articles/2005_11_28.pdf.
- Gandhi TK. Fumbled handoffs: one dropped ball after another. *Ann Intern Med.* 2005; 142: 352-358.

- Rabøl LI, Lehmann Andersen M, Østergaard D, et al. Descriptions of verbal communication errors between staff. An analysis of 84 root cause analysis-reports from Danish hospitals. *BMJ QualSaf.* 2011; 20(3): 268-274. PMID: 21209139. <http://dx.doi.org/10.1136/bmjqs.2010.040238>.
- Hughes RG. Patient safety and quality: an evidence-based handbook for nurses. AHRQ Publication no. 08-0043. Rockville, MD.
- Kumar P, Jithesh V, Vij A, Gupta SK. Need for a hands-on approach to hand-offs: A study of nursing handovers in an Indian Neurosciences Center. *Asian Journal of Neurosurgery.* 2016 Jan 1; 11(1): 54.
- Kumar P, Jithesh V, Vij A, Gupta SK. Who is More Hands on with Hand-offs? A Comparative Study of Clinical Handovers among Doctors and Nurses in a Tertiary Care Center in India. *Int J Res Foundation HospHealthcAdm.* 2015; 3(1): 33-40.
- Murphy A.G., Wears R.L.: The medium is the message: Communication and power in sign-outs. *Ann Emerg Med.* 3009 Sep; 54: 379-380. Epub Apr. 11, 2009.
- The Joint Commission, Comprehensive Accreditation Manual for Hospitals, NPSG 2E rationale statement, ©2007 Joint Commission Resources, Inc. Oak Park, IL, and at www.jointcommission.org. Web site accessed April 2007.
- Joint Commission on Accreditation of Healthcare Organizations: 2007 National Patient Safety Goals Hospital Version Manual Chapter, including Implementation Expectations. http://www.jointcommission.org/PatientSafety/NationalPatientSafetyGoals/07_hap_cah_npsgs.htm (last accessed Sep. 5, 2006).
- Horwitz L.I et al.: What are covering doctors told about their patients? Analysis of sign-out among internal medicine house staff. *QualSaf Health Care.* 2009 Aug; 18: 248-255.
- Sexton A., et al: Nursing handovers: Do we really need them? *J NursManag.* 2004 Jan; 12: 37-42.
- Smith AP. Partners at the bedside: the importance of nurse-physician relationships. *Nurs Econ.* 2004; 22: 161-4. PMID: 15211923.
- Catchpole KR, De Leval MR, Mcewan A, Pigott N, Elliott MJ, Mcquillan A, Macdonald C, Goldman AJ. Patient handover from surgery to intensive care: using Formula 1 pit stop and aviation models to improve safety and quality. *PediatricAnesthesia.*

- 2007 May 1; 17(5): 470-8.
19. Berkenstadt, H., Haviv, Y., Tuval, A., Shemesh, Y., Megrill, A., Perry, A., Rubin, O. and Ziv, A. Improving handoff communications in critical care: utilizing simulation-based training toward process improvement in managing patient risk. *Chest*, 2008; 134(1): 158-162.
 20. Vidyarthi A et al. Managing discontinuity to mitigate patient harm: Strategies for a safe and effective sign-out. *J Hosp Med*. 2006 Jul/Aug; 1: 257-266.
 21. Arora V et al. Communication failures in patient signout and suggestions for improvement: a critical incident analysis. *Qual Saf Health Care*. 2005 Dec; 14: 401-407.
 22. Ram R, Block B. Signing out patients for off-hours coverage: Comparison of manual and computer-aided methods. *Proc Annu Symp Comput Appl Med Care*. 1992; p114-118.
 23. Sandlin D. Improving patient safety by implementing a standardized and consistent approach to hand-Off Communication. *Journal of Perianesthesia Nursing*. 2007; 22(4): 289-92. <http://dx.doi.org/10.1016/j.jopan.2007.05.010>
 24. I-PASS, a Mnemonic to Standardize Verbal Handoffs Amy J. Starmer, Nancy D. Spector, Rajendu Srivastava, April D. Allen, Christopher P. Landrigan, Theodore C. Sectish, the I-PASS Study Group *Pediatrics*. 2012 Feb; 129(2): 201-204; DOI: 10.1542/peds.2011-2966
 25. Agency for Healthcare Research and Quality. Team STEPPS Fundamentals Course: Module 6. Team Structure. Classroom Slides. 2008. www.ahrq.gov/teamsteppstools/instructor/fundamentals/module6/slcommunication.htm.
 26. Andreoli A, Fancott C, Velji K, Baker GR, Solway S, Aimone E, et al. Using SBAR to communicate falls risk and management in interprofessional rehabilitation teams. *Healthcare Quarterly*. 2010; 13: 94-101. PMID:20959737.
 27. Kilpack V, Dobson-Brassard S. Intershift report: oral communication using the nursing process. *Journal of Neuroscience Nursing*. 1987; 19(5): 266-70. <http://dx.doi.org/10.1097/01376517-198710000-00009>.
 28. *Hospitals and Health Networks Mag*, 2008.
 29. Guise JM, Lowe NK. Do you speak SBAR? *JOGNN - Journal of Obstetric, Gynecologic, & Neonatal Nursing*. 2006; 35(3): 313-4. PMID:16700679 <http://dx.doi.org/10.1111/j.1552-6909.2006.00043.x>
 30. Mathias JM. A SHARED tool strengthens handoffs. *OR manager*. 2006; 22(4): 15.
 31. Vidyarthi AR, Arora V, Schnipper JL, Wall SD, Wachter RM. Managing discontinuity in academic medical centers: strategies for a safe and effective resident sign-out. *J Hosp Med*. 2006; 1(4): 257-66. PMID:17219508 <http://dx.doi.org/10.1002/jhm.103>
 32. Talbot R, Bleetman A. Retention of information by emergency department staff at ambulance handover: do standardised approaches work? *Emergency Medicine Journal*. 2007; 24(8): 539- 42. PMID:17652672 <http://dx.doi.org/10.1136/emj.2006.045906>.
 33. Matthew P. Connor, MD, Anneke C. Bush, ScD, MHS, and Joseph Brennan, MD. Originally featured in *Laryngoscope* in April, 2013.
 34. Riesenber LA, Leitzsch J, Little BW. Systematic review of handoff mnemonics literature. *American Journal of Medical Quality*. 2009; 24(3): 196-204. <http://dx.doi.org/10.1177/10628660609332512>.
 35. Allison S. DeKosky, MD, Ananya Gangopadhyaya, MD, Bobby Chan, MD, and Vineet M. Arora, MD, MAPP. Originally published in the *Journal of Graduate Medical Education*, June 2013.
 36. Sutcliffe KM, Lewton E, Rosenthal MM. Communication failures: an insidious contributor to medical mishaps. *Academic Medicine*. 2004; 79(2): 186-94. <http://dx.doi.org/10.1097/00001888-200402000-00019>.
 37. Mathias JM. A SHARED tool strengthens handoffs. *OR manager*. 2006; 22(4): 15.
 38. Schroeder SJ. Picking up the PACE: A new template for shift report. *Nursing*. 2006; 36(10): 22-3. <http://dx.doi.org/10.1097/00152193-200610000-00016>.