NATIONAL GUARD HEALTH AFFAIRS

Quality & Patient Safety Newsletter

A QUARTERLY PUBLICATION OF THE QUALITY & PATIENT SAFETY COUNCIL VOLUME 5 / ISSUE 1 / March 2013

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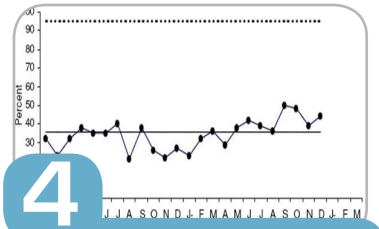

ABOUT THE NEWSLETTER

"By providing important and relevant information to healthcare providers, this Newsletter aims to enhance communication of quality and patient safety information, raise awareness of reported adverse events and maintain ongoing link to all the medical departments of the National Guard Health Affairs (NGHA) facilities. "

BUILDING SAFER CARE:
Leadership & Organizational Priority

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Best Possible Medication History

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Medication errors are common and can significantly harm patients. An important component is the medication history, which is often incomplete and inaccurate. Electronic prescribing is not a substitute for an accurate medication history, although it may prevent some errors associated with transcription of medications. A Best Possible Medication History (BPMH) is a medication history obtained by a healthcare provider which includes a thorough history of all regular medication use (prescribed and non-prescribed), using a number of different sources of information. The BPMH is different and more comprehensive than a routine primary medication history (which is often a quick patient medication history).
Error is possible in any part of the medication use process – procuring, prescribing, transcription, dispensing, administering, monitoring – but it is in the prescribing phase that errors in the medication history may have their effect.

BPMH are important in preventing medication errors and consequent risks to patients. Apart from preventing prescription error, accurate medication histories are also useful in detecting drug-related pathology or changes in clinical signs that may be the result of drug therapy. A BPMH should encompass all currently and recently prescribed drugs, previous adverse drug reactions including hypersensitivity reactions, and over-the-counter medications, including herbal or alternative (traditional) medicines, and adherence to therapy.

There are several reasons for taking a BPMH:

- A knowledge of the drugs a patient has taken in the past is or is currently taking and of the responses to those drugs will help in planning future treatment.
- Drug effects should always be on the list of differential diagnoses, since drugs can cause illness or disease, either directly or as a result of an interaction.
- Drugs can mask clinical signs. For example beta-blockers can prevent tachycardia in a patient with hemorrhage, and corticosteroids can prevent abdominal pain and rigidity in a patient with perforated duodenal ulcer.
- Drugs can alter the results of investigations. For example, Amiodarone alters thyroid function tests.
- To take the opportunity to educate the patient about their medications.
- To help avoid preventable errors in prescribing, since an inaccurate history on admission to hospital may lead to unwanted duplication of drugs, drug interactions, discontinuation of long-term medications and failure to detect drug-related problems.

Medication history errors such as omitting drugs erroneously, are common and often have the potential to harm the patient. Hypersensitivity reactions are often poorly documented or not explored in detail, which may lead to unnecessary avoidance of a drug. Accurate documentation of concomitant herbal or alternative (traditional) therapies is rare, despite the importance they may have in causing adverse effects or drug-drug interactions. Polypharmacy, specific drugs, and clinical specialty can affect the risk of medication history errors.

There are various strategies to reduce medication history errors. When taking the history from the patient use the words 'medicines' or 'medications', rather than 'drugs', which may be mistaken for drugs of abuse or recreational drugs. Electronic prescribing may reduce transcription errors, but it can facilitate other errors and still depends on an accurate medication history.

The BPMH of a patient is the basis on which many further decisions are made and it is imperative that this is as accurate and complete as possible. Often medication histories contain incorrect or incomplete doses, and incorrect or omitted medicines. Many sources of information may be used to compile a medication history, including:

- Interview with the patient / caregiver
- Hospital discharge summary
- Medication record cards
- List of medicines prepared by patients or carers
- Patient's own supplies of medicines

Each of these sources has its own limitations and therefore in many cases a collaboration of more than one source is needed to fully determine a patient's accurate and complete medication history.

One of the first steps in obtaining the Best Possible Medication History is engaging in an active discussion with the patient / carer. Below is an Interview Checklist, is designed with recommendations and sample questions to obtain the best results. The Checklist acts as a prompt for the interviewer to cover all of the various aspects discussed above.

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Best Possible Medication History – Interview Checklist

Enter Room & Wash Hands.

INTRODUCTION:

□ Hello Mr / Mrs /Ms / Miss _____ (Patient Name)
□ My name is _____, (introduce yourself / profession)
□ I would like to take some time to review the medications you take at home.
□ I have a list of medications from your chart / file and want to make sure it's accurate and up-to-date.
□ Would it be possible to discuss your medications with you or a family member at this time?
□ Do you have a family member who knows your medications that you think should join us? How can we contact them?

ALLERGIES:

□ Do you have any medication allergies? □ YES □ NO. If YES, what happens when you take __ _?
□ Do you have any other allergies? (e.g., shell fish / eggs, latex, tape, iodine, etc) □ YES □ NO. If YES, what happens when you take __ _?

INFORMATION GATHERING:

□ Do you have your medication list or pill bottles (vials) with you?
□ Show and tell technique when they have brought the medication vials with them
□ How do you take ___ _ (medication name)?
□ How often or when do you take ____ (medication name)?
□ Collect information about dose, route and frequency for each drug. If the patient is taking a medication differently than prescribed, record what the patient is actually taking and note the discrepancy.
□ Are there any prescription medications you (or your physician) have recently stopped or changed?
□ What was the reason for this change?

OTC (OVER-THE-COUNTER) MEDICATIONS:

□ Are there any medications that you are taking that you do not need a prescription for? (Do you take anything that you would buy without a doctor's prescription?) Give example, e.g. Aspirin, analgesics. If yes, how do you take _____?

VITAMINS / MINERALS / SUPPLEMENTS / HERBAL MEDICATION:

□ Do you take any vitamins (e.g. multivitamin)? If yes, how do you take _____?
□ Do you take any minerals (e.g. calcium, iron)? If yes, how do you take _____?
□ Do you use any supplements (e.g. potassium, glucosamine)? If yes, how do you take __?
□ Do you use any herbal medication (e.g. myrrh)? If yes, how do you take __?

EYE / EAR / NOSE DROPS:

□ Do you use any eye drops? If yes, what are the names and how many drops do you use and how often? In which eye?
□ Do you use any ear or nose drops / nose sprays? If yes, how do you use them?

INHALERS / PATCHES / CREAMS / OINTMENTS/ INJECTABLES / SAMPLES:

□ Do you use any inhalers? Any medicated patches? Medicated creams or ointments? Any injectable medications (e.g. insulin)? For each if YES, how do you take _____? (Note name, strength, how often)
□ Did your doctor give you any medication samples to try in the last few months?

ANTIBIOTICS:

□ Have you used any antibiotics in the past (three) 3 months? If so, what are they?

CLOSING:

□ This concludes our interview. Thank you for your time. Do you have any questions?
□ If you remember anything after our discussion please contact me to update the information?

Exit room, and wash hands.
Document intervention / interaction in patient's clinical record on the Interdisciplinary Patient / Family Education Record (IPER) form.
Note: Medical and Social History, if not specifically described in the clinical record may need to be clarified with patient.

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RUN CHART:
A Simple Quality Improvement Tool

Dr. Tamer Farahat
Director, Quality Management, Al Ahsa, Eastern Region

The skills associated with using data for improvement vary widely among those working to improve healthcare. A Run Chart is a simple analytical tool commonly used by professionals in quality improvement, but underutilized in healthcare. For those health professionals that use run charts, they provide a valuable source of information and learning for both practitioner and patient.

Although many healthcare professionals now recognize the value of statistical process control methods, applications and tools in improving the quality of care, much of this focus in the healthcare improvement literature is on Shewhart (control) charts and their various derivatives.

The run chart allows us to learn a great deal about the performance of our process with minimal mathematical complexity.

Important uses of the run chart for improvement activities include the following:

- Displaying data to make process performance visible
- Determining if changes tested resulted in improvement
- Determining if we are holding the gains made by our improvement
- Allowing for a temporal (analytic) view of data versus a static (enumerative) view

Displaying data on a run chart is often the first step in developing more complex Shewhart (control) charts

A run chart is a graphical display of data plotted in some type of order. The horizontal axis is most often a time scale (eg, days, weeks, months, quarters) but could also include sequential patients, visits or procedures. The vertical axis represents the quality indicator being studied (eg, infection rate, number of patient falls, readmission rate). Usually, the median is calculated and used as the chart's centerline.

The median is used as the centerline because (1) it provides the point at which half the observations are expected to be above and below the centerline and (2) the median is not influenced by extreme values in the data. Goal lines and annotations of changes and other events can also be added to the run chart. Figure 1 shows an example of a run chart. The primary advantage of using a run chart is that it preserves the time order of the data, unlike statistical tests of significance that generally compare two or more aggregated sets of data.

Viewing data over time rather than in summary statistics yields richer data and more accurate conclusions for improvement projects.

The terms 'shift' and 'trend' are often used indiscriminately on a subjective basis as a means for moving a conversation or decision forward, without recognition that statistical definitions of such terms exist and rely on more than a single data point. The four probability-based rules below are used to objectively analyze a run chart for evidence of nonrandom patterns

Rule 1- Shift

Six or more consecutive points either all above or all below the median. Values that fall on the median do not add to nor break a shift. Skip all values that fall on the median and continue counting.

Rule 2 - Trend

Five or more consecutive points all going up or all going down. If the value of two or more consecutive points is the same, only count the first point and ignore the repeating values; like values do not make or break a trend.

Rule 3 – Runs

A non-random pattern is signaled by too few or too many runs, or crossings of the median line. A run is a series of points in a row on one side of the median.
The shift and run rules require more than 10 points before they are applicable.

Rule 4 – Astronomical point

An astronomical data point is one that is obviously, even blatantly, different from the rest of the points. Astronomical points should not be confused with the highest or lowest data points.
Figure 2: Rules for run chart

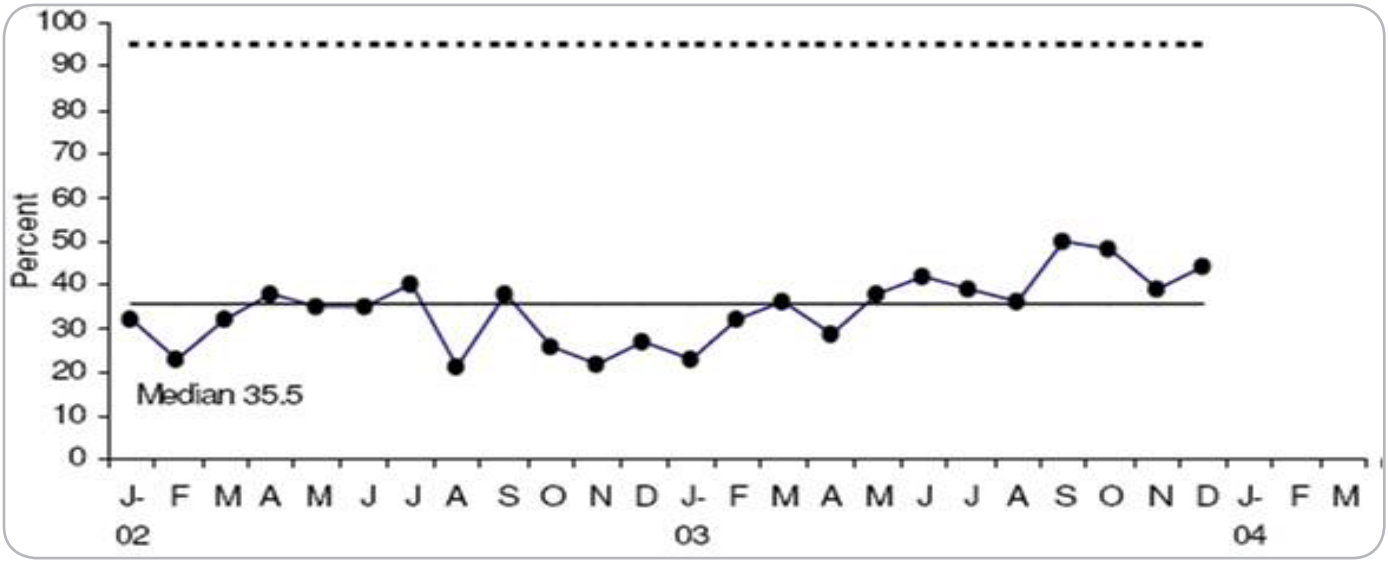

Figure 1: Example of a Run Chart

As with any analytical tool, there are limitations to run charts. First, run charts are designed for the early detection of signals of improvement or degradation in a process over time. Using control chart language with run charts can create confusion because the two methods include different rules for identifying non-random patterns. Shewhart charts identify deviations from the centreline (mean, not the median) using control limits. In using run charts, it is recommended avoiding the terms special and common cause and stable or unstable, reserving their use for Shewhart (control) charts. Second, there are situations in healthcare settings where the data are discrete and can make use of the run chart rules more complex.

Third, run charts require judgment and understanding of the context and situation in which the data are collected and presented because it is ultimately the context of a situation that drives our predictions and goals. Lastly, healthcare providers and professionals are largely trained in aggregate summary statistics and hypothesis testing paradigms which focus often on larger amounts of data at distant intervals. Using run charts, and other statistical process control tools, requires more regular monitoring and data collection for the purposes of better understanding the voice of the process.

The value of a run chart is its simplicity and versatility in letting us learn from our data. By adding some probability- based rules to aid interpretation, we get a picture of the process over time and a method to systematically identify non-random signals.

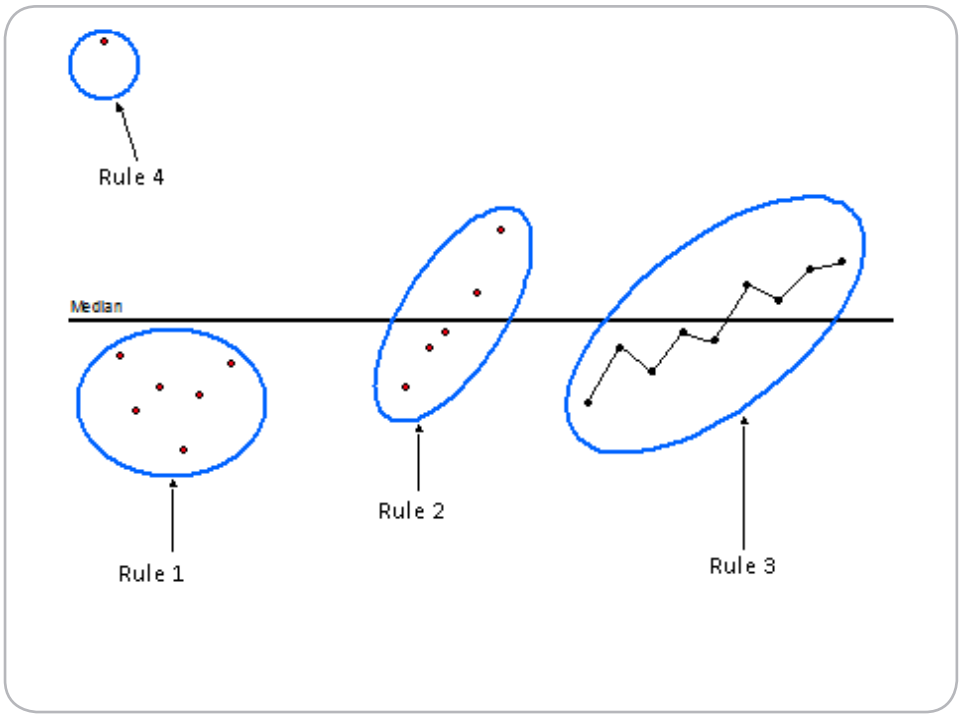

Figure2: Rules for Run Chart

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"Introducing Quality Champions as a catalyst for effective Quality Improvement"

Debbie Lee, Director, Clinical Nursing / Quality Patient Safety & Research
King Abdulaziz Hospital, Al Ahsa

The Quality Champion is a new and proactive concept within the Nursing Services at NGHA – Al Ahsa with a primary function of making quality improvement and safety of patients everyone's highest priority. This is not an elitist role but a key component to facilitate the advancement of the quality improvement agenda. All work undertaken is following the direction laid out in the Nursing Strategy 2011-2016 'Preparing for the Future', and further supported in the 'Nursing Services Quality Framework - 2011'. The role focuses on the priorities for action and linked to the nursing management structure.

What do the Quality Champions do?

The Quality Champions is an evolving role, but fundamentally they undertake the following:

1. Promote quality improvement
2. Implement and advance quality systems
3. Oversee and conduct analysis bridging standards with patients needs
4. Evaluates procedures, policies, good practice guidelines and systems
5. Act as a catalyst for change
6. Increase patient & staff satisfaction
7. Involve all levels of staff in quality improvement
8. Encourages corpracy
9. Make quality integral in all we do
10. Provides a platform for training and development
11. To oversee the units QIPS with support from the Nurse Manager and report progress on a regular basis to the champion meetings
12. To support all activities at connected with JCIA standards
13. To ensure the risk register is updated monthly, reported and action planned with support from the Nurse Manger
14. To be involved in all nursing audits as required
15. To be part of the regular agenda in each clinical unit to disseminate news on Quality improvement

The Quality Champions meet on a monthly basis, with all meetings recorded in minutes and where appropriate filmed to aid communication and transparency. The first hour of the meeting is an open event where any staff can attend; the second hour is for formal business for the champions only. Occasionally Ad hoc planning meeting are undertaken as required in order to move the quality agenda forward. The following table is an example of the first year meeting schedule:

Outcomes to Date

- Training and development of staff on quality improvement tools and techniques
- Nursing audits based on the Essence of Care Framework on Pressure ulcer management, Falls management and Pain management
- Making patient satisfaction a top priority
- Risk management system established
- Having a platform to discuss clinical issues in order to improve quality outcomes
- Enabling a corporate approach to quality improvement by nurses sharing work across boundaries

- Contributing to the Quality Framework
- Falls rate decrease
- Hospital acquired Pressure Ulcer rates decreased

The Future

The following list is only a suggestion on what the future direction could be like for the Quality Champion role as means to encourage further discussion:

- Acceptance of the role throughout the organization
- To become multidisciplinary rather than exclusive to Nursing Services
- To target projects on organizational needs
- To have all information available on quality on the intranet
- To have an annual Quality Symposium as a showcase for the Quality Champions and a means to disseminate quality improvement outcomes

Clearly the setting up of the champion role has been evaluated well and seen as a major success within nursing services. The results from several focus groups showed that the managers and staff want the role to remain and see them as value. As time moves on their role is becoming much more proactive at bringing all staff together to work on clinical issues. We will continue to monitor the impact of this evolving role and gladly share the outcomes with you.

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CLINICAL HANDOFF

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What is a handoff?

A handoff refers to the handover of patient care responsibility from one health care provider to another. It is an interactive process of transferring patient-specific information for the purpose of ensuring continuity of care.

Why is handoff of care important?

Handoff of care is a risky point that can potentially affect the continuity of care and patient safety. The handoff process is often characterized by communication failures. According to The Joint Commission Sentinel Event data, ineffective communication has been identified as the root cause for 55 percent of reported medical errors in 2008. In 2009, it accounted for 65% of the errors; and the figure increased dramatically to 82 percent in 2010 (See below Chart).

Effective communication is the hallmark of safe patient care. It is even more so during the transition of care. It takes considerable commitment and skill to ensure effective communication of accurate information about a patient's care plan, treatment, current condition and any recent or anticipated changes.

When must handoff occur?

In the course of patient care, it is often necessary to transfer responsibility for a patient's care from one physician to another. Handoff of care must occur during the following care transitions:

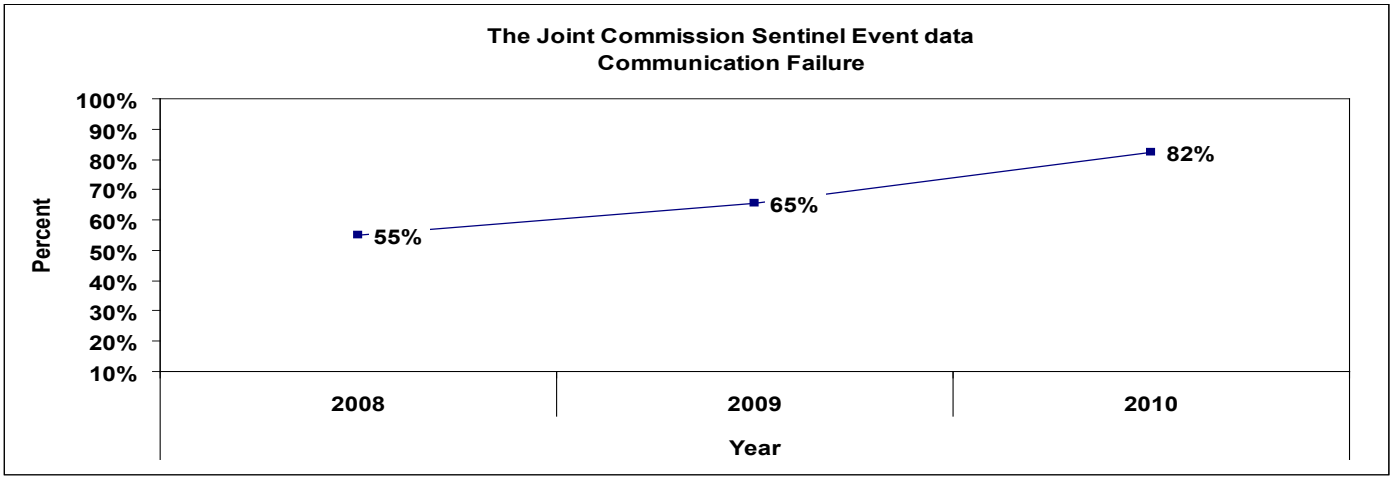
1. *Extra-hospital*
   a. *Admission: Emergency Medical Services to Emergency Department or Emergency Department to floor*
   b. *Discharge: Hospital to long term care (Home Health Care)*
   c. *Inter-hospital transfer*
2. *Intra-hospital*
   a. *Shift change*
   b. *Service change*
   c. *Service transfer: escalation or de-escalation of care; and different specialty*

What are the core components of handoffs?

A good handoff consists of three core components:

- Verbal communication
- Written communication
- Transfer of professional responsibility

Verbal communication can take place either in person or over the phone. It is preferable to have face-to-face communication, but obviously it can not happen all the time. Face-to-face verbal communication with interactive questioning are supported as best practices associated with



improved hand-off communication. Face to face interaction allows each party to ask questions, and clarify information about the status of pending test results, acute problems with the patient, or other matters. Verbal communication does not need to include the entire written communication, but only the pertinent information and upcoming issues: (1) the tasks to be done and (2) the anticipatory guidance: what may happen over the next shift and what to do about it.

Written communication could be in the form of a transfer note, a service change note, progress notes, admission notes or discharge summary. Written communication must be complete, clear, concise, accurate and timely. Written hand-offs provide detailed information that serves as a reference for the receiving provider.

Handoff includes transferring authority and responsibility for a patient during transitions of care. Majority of physicians do not connect handover with the transfer of responsibility and accountability. Blurring of transition of responsibility and accountability often occurs. A lack of 'ownership' of a patient and their problems has been seen causing confusion about whom to address the clinical issues. Thus, transition of responsibility and accountability should be explicit at the handoff.

Which information to communicate?

Handoffs are challenged by the problem of knowing which information to communicate in the transfer. In some cases, the parties handing off try to communicate too much information while in other cases they share too little, or they may communicate irrelevant or unnecessary information or omit important items.

Handoffs are to include minimum core content, but not limited to:

- Patient name
- MR #
- Diagnosis
- Allergies
- Isolation status
- Potential changes in condition
- What to watch for or monitor during the next interval of care

Which tool to use for hand-off?

The "I PASS THE BATON" handoff tool covers the key areas for both simple and complex patient care handoffs. The tool is optimized for most healthcare handoffs; and it offers a foundation for clinical leaders to teach others on how to conduct a proper hand-off. This tool is useful to promote a culture that encourages staff to clarify, question, confirm, and provide the opportunity to utilize established principles of team communication. At the same time, it helps remind clinicians of the key information and factors to include during their medical hand-offs.

I **Introduction**-Introduce yourself and your role/job (include patient)

P **Patient**-Name,identifiers, age, sex, location

A **Assessment**-Presenting chief complaint, vital signs, symptoms, and diagnosis

S **Situation**-Current status/ circumstances, including code status, level of uncertainty, recent changes, response to treatment

S **Safety Concerns**-Critical lab values/reports, socio-economic factors, allergies, alerts (falls, isolation, etc.)

B **Background**-Co-morbidities, previous episodes, current medications, family history

A **Actions**-What actions were taken or are required?
Provide brief rationale

T **Timing**-Level of urgency and explicit timing and prioritization of actions

O **Ownership**- Who is responsible(nurse/doctor/team)? Include patient/family responsibilities

N **Next**-What will happen next? Anticipated changes? What is the plan? Are there contingency plans?

References:

Agency for Healthcare Research and Quality. TeamSTEPPS. Retrieved September 30, 2012 from http://teamstepps.ahrq.gov/

WHO Collaborating Centre for Patient Safety Solutions, (2007). Communication during Patient Hand-overs. Patient Safety Solutions, volume 1, solution 3.

This is your Newsletter and we value your comments. Please recommend Quality Improvement Projects in your area. We strongly encourage you to share patient safety information.
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