Handoffs: the Good, the Bad, and the Evaluations

Emily Fondahn, MD
Assistant Professor of Medicine

Geoffrey Cislo, MD
Assistant Professor of Medicine

Thomas Ciesielski, MD
Instructor in Medicine

Thomas De Fer, MD
Professor of Medicine

Disclosures

- Emily Fondahn, MD
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- Thomas Ciesielski, MD
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- Geoffrey Cislo, MD
  - No financial disclosures
- Thomas De Fer, MD
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Objectives

By the end of this session, participants will

1. Assess standardized sing-out templates and apply to own residency program
2. Identify milestones that can be linked to hand-off competency
3. Explain how to implement a standardized hand-off curriculum

The Good

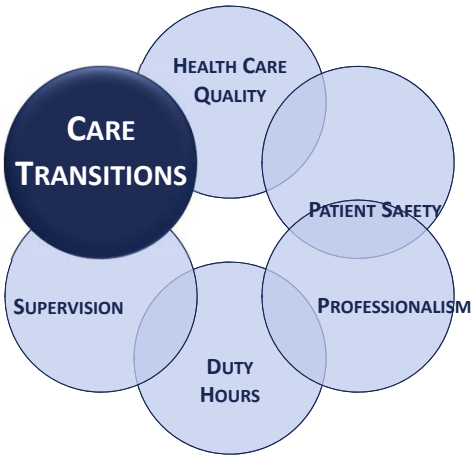
Handoff Definition

"The process of transferring primary authority and responsibility for providing clinical care to a patient from one departing caregiver to one oncoming caregiver"

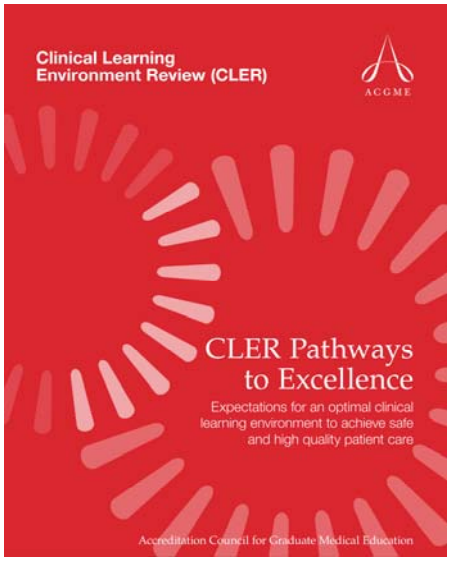
Handoff = Transfer of information **+** professional responsibility

Patterson et al. The Joint Commission Journal on Quality and Patient Safety. 36 (2):52-61, Feb 2010

Clinical Learning Environment Review



Standardized, effective, efficient hand-offs are a prerequisite for safe patient care.



CLER Pathways to Excellence, ACGME, 2014

CT Pathway 1: Education on Care Transitions

Formal education activities that create a shared mental model with regard to care transitions are necessary in order for residents/fellows to work in a consistently well-coordinated manner

- Residents, fellows, and faculty know policies and procedures
- Residents, fellows, and faculty participate in interprofessional CT training

CT Pathway 2: Resident/Fellow Engagement in Change of Duty Hand-Offs

Standardized, effective, efficient hand-offs are a prerequisite for safe patient care

- Residents and fellows use a common hand-off process
- Resident/fellow hand-offs are interprofessional when appropriate
- Resident/fellow hand-offs are involve patients/families when appropriate

CT Pathway 3: Resident/Fellow and Faculty Engagement in Transfers Between Services and Locations

Standardized, effective, efficient hand-offs are a prerequisite for safe patient care

- Residents and fellows use standardized verbal communication for CTs between services and locations
- Resident/fellow CTs between services and locations are interprofessional when appropriate
- Residents and fellows participate in development of strategies to improve CTs

CT Pathway 4: Faculty Engagement in Assessing Resident and Fellow CTs

Evaluation through direct observation of residents and fellows by faculty is required to ensure trainee's abilities to perform standardized, effective, efficient hand-offs

- Through a standardized process, residents and fellows are directly observed/assessed performing CTs in order to determine their ability to move from direct to indirect faculty supervision
- Faculty periodically monitor resident/fellow CTs to ensure quality

CT Pathway 5: Resident/Fellow and Faculty Engagement in Communication Between Primary and Consulting Teams

Residents/fellows and faculty members demonstrate direct verbal communication practices and identify when and how these should be preferentially employed

- Residents/fellows and faculty members use direct communication in the development of patient care plans among primary and consulting teams

CT Pathway 6: clinic Site Monitoring of Care Transitions

Periodic monitoring of CTs is essential to identifying vulnerabilities and designing and implementing actions to enhance patient care

- Clinical site's leadership monitors resident/fellow CTs
- Clinical site's leadership involves program directors in the development and implementation of strategies to improve CTs

Clinical Learning Environment Review

CLER SITE VISIT

WHO

- **Site leadership**
- **Program directors**
- **Faculty**
- **Fellows**
- **Residents**
- **Interprofessional staff** (when appropriate)
- Patients/families (when appropriate)

WHAT

- **Duty hand-offs**
- **Transitions between services and locations**
- **Communication between primary and consulting teams**

HOW

- **Formal education**
  - **Standard hand-off procedures**
  - **Standard verbal commination**
- **Assessment**
  - **Direct observation**
- **Monitoring**

Milestones

- The milestone most clearly linked to hand-offs is Systems-based Practice 4
  - Transitions patients effectively through the healthcare system

The Bad

Produzioni Europee Associati (PEA)

Background

- Increased attention with resident work hour restrictions
- Patients now covered by “cross cover” physician about 50% of time
  - Patient staying on internal medicine service for 5 days has on average 15 handoffs
  - Individual intern involved in more than 300 handoffs in month rotation
- Need for hand off training, supervision and standardization

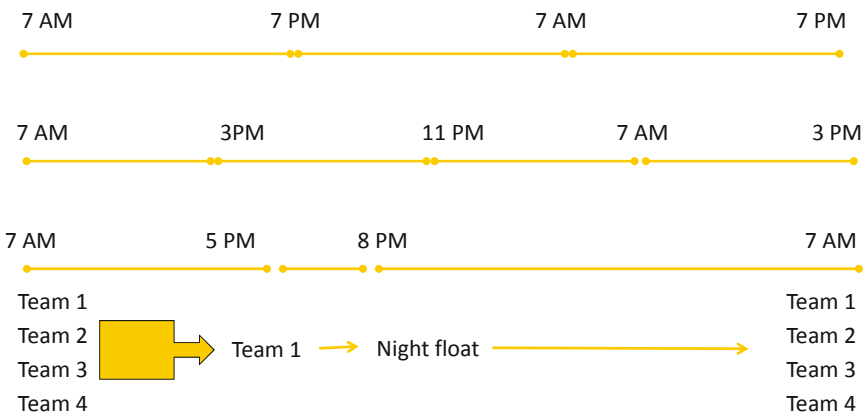
Vidyarthi et al Journal of Hospital Medicine 2006;1:257-266

Background

- 55% of 202 internal medicine residencies did not require verbal and written sign-out
- 31% of pediatric residents said that something happened on call that handoff had not prepared them for
- Residents often sign-out “whenever and where ever”

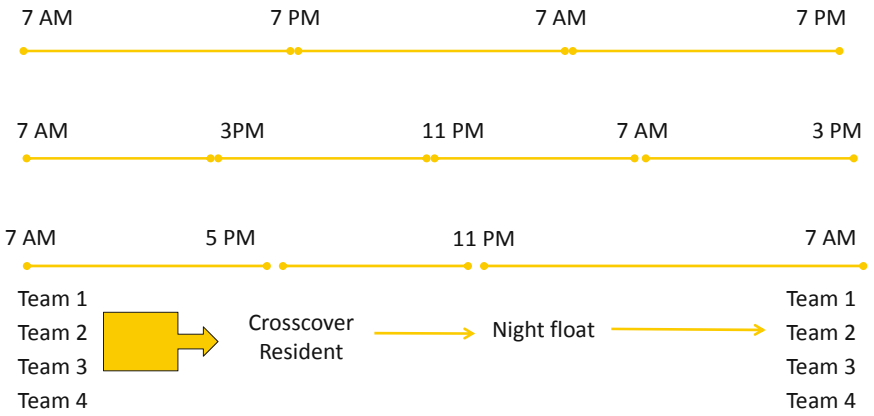
Raduma-Tomas M.. BMJ Qual Saf (2011).

Daily Handoffs



Physician-Physician
Nurse-Nurse

Daily Handoffs



Physician-Physician
Nurse-Nurse

Discontinuity of care

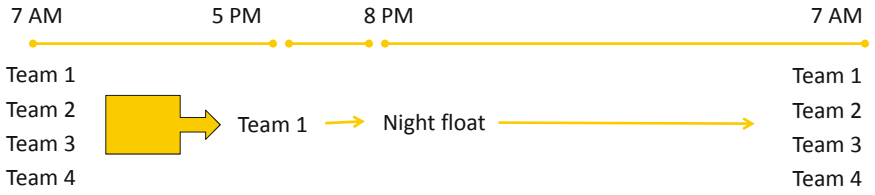
- Associated with:
  - Increased in-hospital complications
  - Preventable adverse events
  - Increased ordering of unnecessary tests
  - Diagnostic test delays
  - Increased medication errors

Riesenberg et al *Acad Med* 2009;84:1775

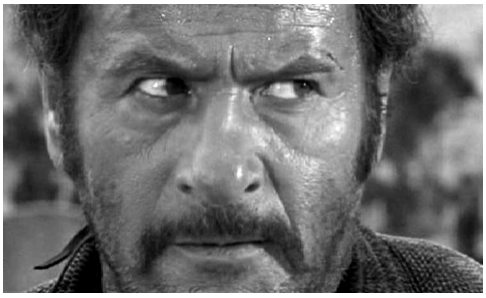
Resident Beliefs

- Internal Medicine residents survey
- 70% sign-out should be problem based rather than systems based
- 41% sign-out should offer a chance to discuss alternative diagnoses/treatments
- 40% thought that he/she should not be expected to make many decisions on cross cover patients
- 3% discussed sickest patients first
- 76% reported finding major errors or omissions on sign-out

- Night signouts were significantly shorter than day signouts (59 ± 41 s per patient vs 134 ± 73 s per patient (p=0.0002))
- Night sign-out less likely to cover procedures/lab tests, treatment plan, active problems and patient background



The Evaluations



Policy

1. All interns must attend hand-off training which occurs during the intern **orientation** at the start of the academic year.

2. All interns and residents must attend rotation orientations which occur at the start of rotations for the inpatient general medicine services at BJH; general inpatient Oncology; and inpatient VA rotations. There are on-line orientations for the MICU, CCU, and Night Float rotations which include instruction on hand-offs.

3. All interns must complete the **module** on hand-offs.

4. During the first six months of training, all intern hand-offs must occur in the presence of their upper level resident (PGY-2 or PGY-3). This includes intern hand-offs on both the delivering and receiving ends. After the six month period, there must be an **observed hand-off that certifies and documents the intern as competent** to hand-off without supervision. After certification, the intern will not be required to have supervised hand-off

5. All Interns must have **one hand-off supervised by an attending** per attending rotation.

Standardized Hand-offs

I-PASS
BETTER HANDOFFS. SAFER CARE.

I	Illness Severity	• Stable, "watcher," unstable
P	Patient Summary	• Summary statement • Events leading up to admission • Hospital course • Ongoing assessment • Plan
A	Action List	• To do list • Time line and ownership
S	Situation Awareness and Contingency Planning	• Know what's going on • Plan for what might happen
S	Synthesis by Receiver	• Receiver summarizes what was heard • Asks questions • Restates key action/to do items

Standardized Hand-offs

- Medicine specific standardized hand-offs exist
  - ANTICIpate

Checklist for Elements of a Safe and Effective Written Sign-out—ANTICIpate

- ✔ **Administrative data**
  - ☐ Patient name, age, sex
  - ☐ Medical record number
  - ☐ Room number
  - ☐ Admission date
  - ☐ Primary inpatient medical team, primary care physician
  - ☐ Family contact information
- ✔ **New information (clinical update)**
  - ☐ Chief complaint, brief HPI, and diagnosis (or differential diagnosis)
  - ☐ Updated list of medications with doses, updated allergies
  - ☐ Updated, brief assessment by system/problem, with dates
  - ☐ Current "baseline" status (eg, mental status, cardiopulmonary, vital signs, especially if abnormal but stable)
  - ☐ Recent procedures and significant events
- ✔ **Tasks (what needs to be done)**
  - ☐ Specific, using if-then statements
  - ☐ Prepare cross-coverage (eg, patient consent for blood transfusion)
  - ☐ Alert to incoming information (eg, study results, consultant recommendations), and what action, if any, needs to be taken during the cross-coverage
- ✔ **Illness**
  - ☐ Is the patient sick?
- ✔ **Contingency planning/Code status**
  - ☐ What may go wrong and what to do about it
  - ☐ What has or has not worked before (eg, responds to 40 mg IV furosemide)
  - ☐ Difficult family or psychosocial situations
  - ☐ Code status, especially recent changes or family discussions

J Hosp Medicine. 2006:1(4)

Standardized Sign-Out: Other Institutions

Handoff

Primary Team: [redacted]	**Room Number:** [redacted]
Patient Name: [redacted]	**MRN:** [redacted]
Date of Birth: [redacted]	**Allergies:** [redacted]
Age: [redacted]	**Admit Date:** [redacted]
Sex: [redacted]	**BMI:** [redacted]
Code Status: [redacted]	

Illness Level (current clinical status): Watcher - (YES **/NO:21893)

Reason for Admission: [redacted]

Brief HPI (pertinent PMH and diagnosis or differential diagnosis): ***

Procedure Date: ***

Hospital Course (updated, brief assessment by system or problem, significant events): ***

Tasks (specific, using if-then statements): ***

Contingency Plan (special circumstances anticipated and plan): ***

Estimated Discharge Date: ***

Discharge Disposition: {IP DISCHARGE DISPOSITION:304000100::"Home or Self Care"}

Mentored By: ***

Hand-off template at Oschner Health utilizing IPASS (EHR: Epic)

Information needed for Hand-offs

IPASS and other systems break down information needed into 3 broad categories:

1. Administrative data:
   a) Basic patient info (name, DOB, location)
   b) Acuity of patient
   c) Code status
2. Background information:
   a) Reason for admission
   b) Other major problems
3. Cross-coverage information
   a) Information that comes back in the cross coverage period AND what to do about it

Implementing a Curriculum

Curriculum

- Iterative Process
- Began in 2010
  - Resident led focus groups
  - Standardized Template
- Implemented in 2011
  - Lectures
- Online module 2012
  - Now with assessment
- Program policy 2014
  - Intern orientation
  - Supervision & feedback

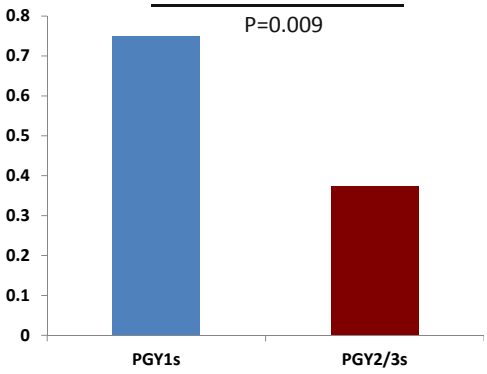


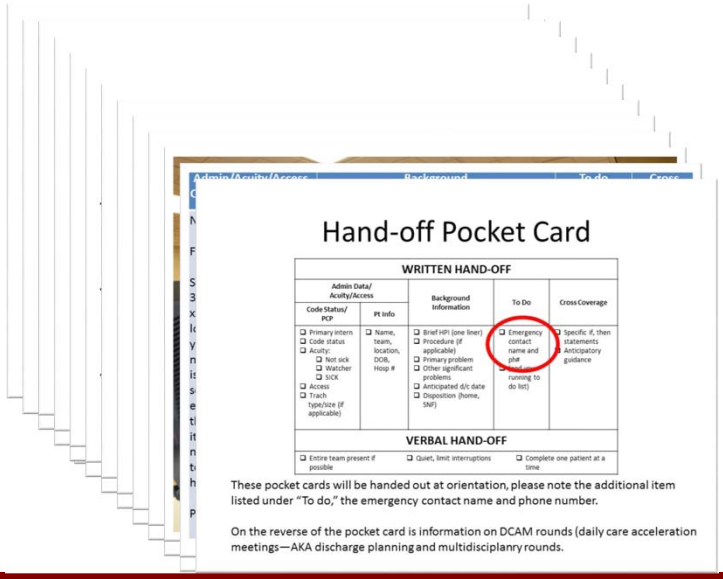
Figure 1. % of PGY1s who know and are comfortable with the hand-off system (in July)

Hand-off Template: Standardized for IM

WRITTEN HAND-OFF				
Administrative Data		**Background Information**	**To Do**	**Cross Coverage**
Acuity / Access / Code Status / Contact	**Admin Info**			
❑ **Acuity** (assume not sick unless checked) ❑ **Access** ❑ **Code status** ❑ **Emerg contact** (Name and ph #)	❑ Name Team Location DOB MRN	❑ Brief HPI (one liner) ❑ Primary problem ❑ Other active problems ❑ Disposition: location and date if known	Your running to do list	❑ Tasks/tests to follow up on with specific if, then statements ❑ Anticipatory guidance
VERBAL HAND-OFF				
❑ Entire team present if possible		❑ Quiet, limit interruptions		❑ Complete one patient at a time

Figure 2. Most current hand-off template (updated March 2016)

Module



Online Training Module

- Required as of 2014
- 24 slide module
- Distributed through evaluation platform
- 100% compliance
- Pre and post assessment

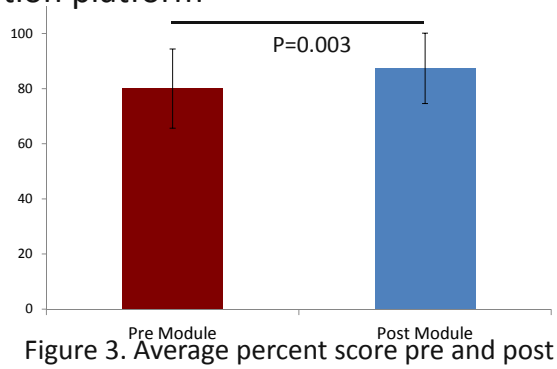


Figure 3. Average percent score pre and post lectures and online training module

Online Training Module Outcomes

- Small pilot study demonstrated a non-significant increase in completeness pre- and post-module

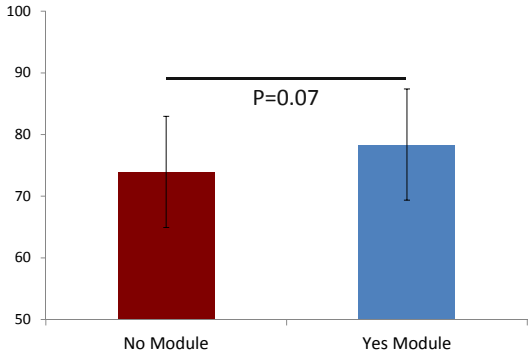
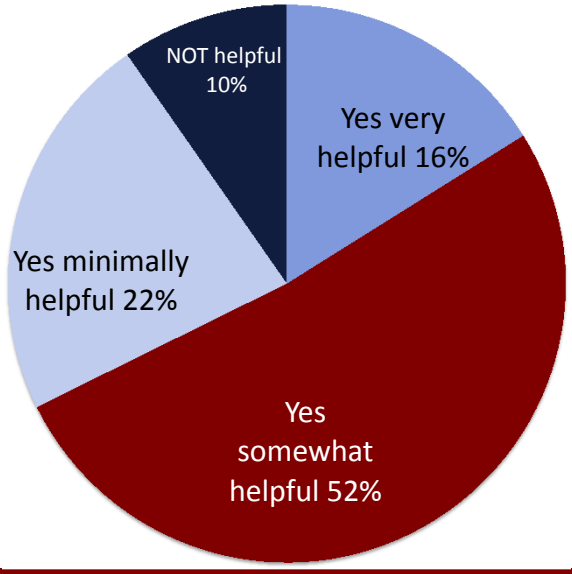


Figure 4. Percent Completeness of written and verbal hand-offs with or without training modules

Perception

Figure 5. Training module helpful in improving understanding of written hand-off (PGY1s)

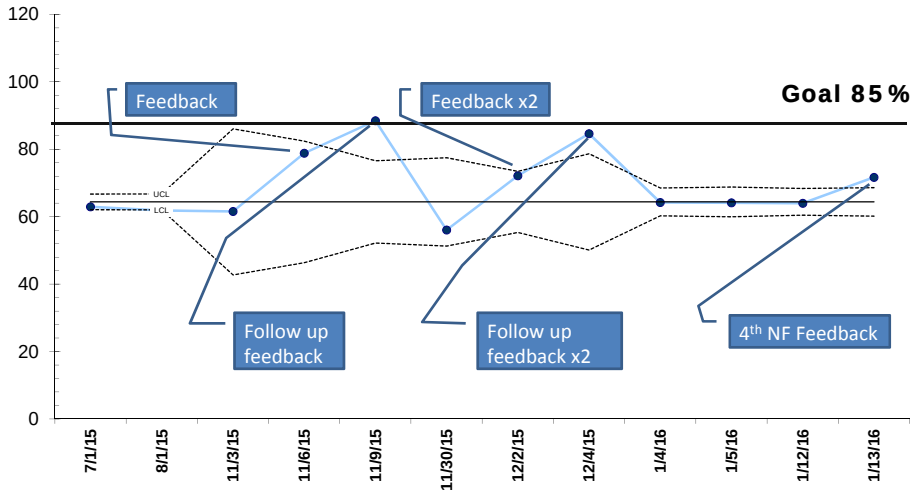


Completeness

- Of the data points on template, our residents only complete 60% of them
  - Most often omitted:
    - Acuity
    - Disposition
    - Discharge Date
    - Emergency Contact
  - QI work ongoing to improve completeness, streamline template
    - Faculty feedback improves completeness (time intensive)
    - Cross-coverage resident acts as immediate check
    - Revising template

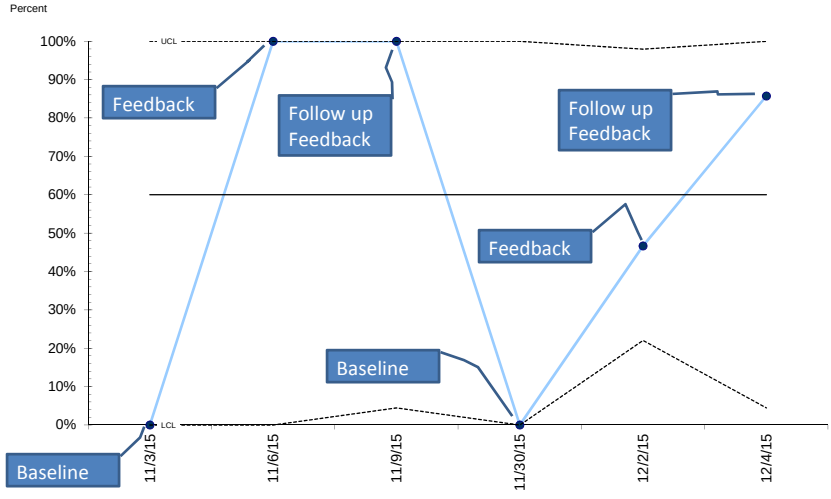
Completeness

Figure 6. Control Chart of Hand-off Completeness (Percentage)



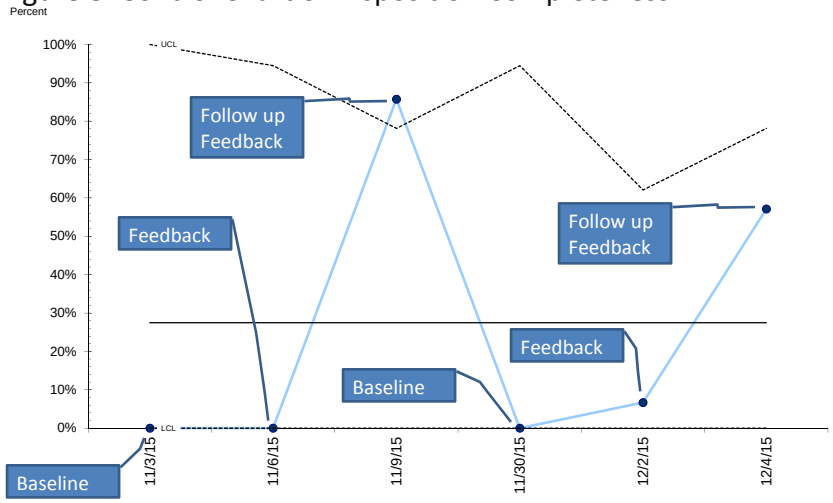
Individual Data Points: "Acuity"

Figure 7. Control Chart of Acuity Completeness



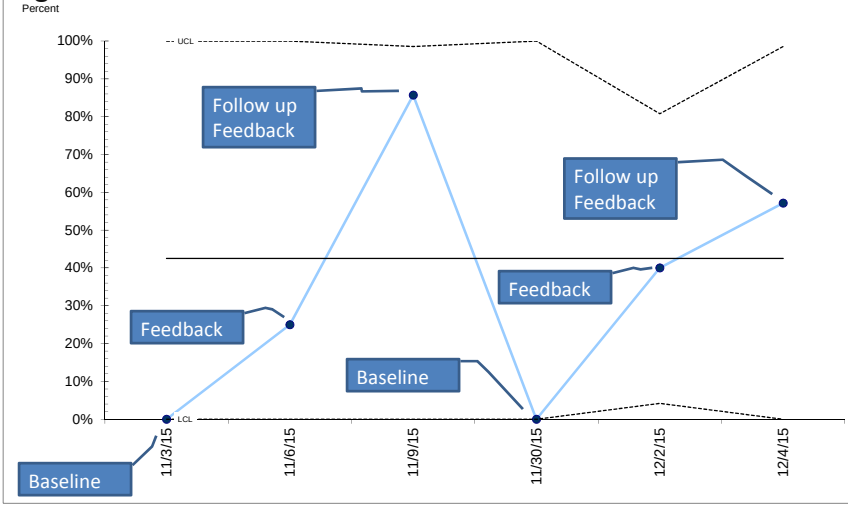
Individual Data Points: "Disposition"

Figure 8. Control Chart of Disposition Completeness



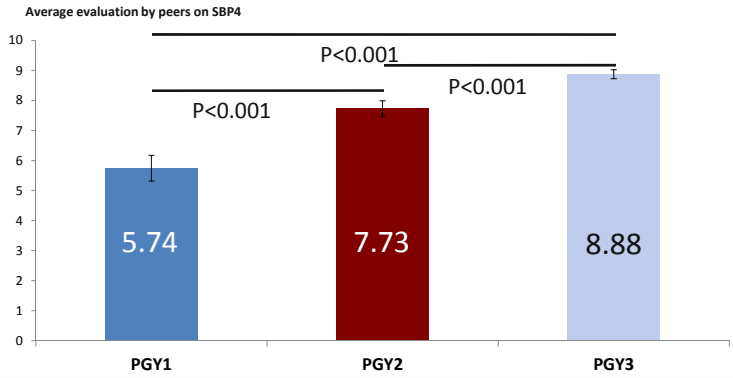
Individual Data Points: Discharge "Date"

Figure 9. Control Chart of "Date"



Peer Evaluations

- Evaluations by peers on SBP4: "Transitions patients effectively within and across health delivery systems." Scale: 1 (concern) – 9 (expected PGY3 level)
- Evaluations occur on inpatient wards, all ICUs and pulmonary and renal consult services
- PGY1s and 2s fall just above their expected level, PGY3s just below



Peer Evaluations: "Entrustability"

- AY 2014-2015 32 of 65 interns (49%) captured with new evaluation
- Cross-coverage resident evaluates all interns:

  "This PGY1 is entrustable with handing-off patients (Effectively communicates information using the standardized format in an efficient and prioritized manner)."
- Allows for unsupervised hand-offs
- AY 2015-2016 our goal is to capture 95% of interns with the evaluation
  - To date: 33 of 65 (51%)

Faculty Evaluations

- Limited at present

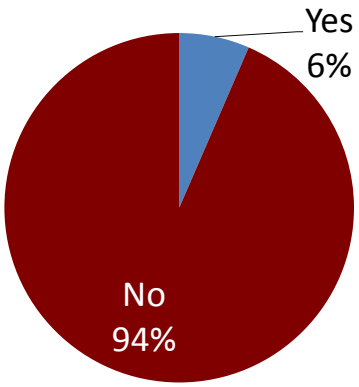


Figure 11. % of Interns who report having faculty observation of at least one hand-off

Next Steps

Next Steps

- Revise hand-off template with resident and hospitalist input
- Building into new EHR
- Improve the completeness of written hand-offs
  - QI work ongoing
    - Utilize attending feedback
    - Have cross-coverage resident act as check-point
- Capture 100% of interns with current evaluation
- Increase faculty oversight and evaluation of hand-offs
  - Written and verbal
  - Partner with hospitalist division
  - Faculty orientation