

Improvement of Patient Handoffs Between Attending Hospitalists Utilizing the I-PASS Handoff Bundle and Direct Peer Observation

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I-PASS
BETTER HANDOFFS. SAFER CARE.

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Disclosures

- Shilpa Patel and all other co-authors have no financial relationships to disclose or Conflicts of Interest (COIs) to resolve
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- I-PASS materials were used and adapted with permission from the I-PASS Executive Council



Objectives

- Detail background
- Describe implementation of the I-PASS program for Pediatric Hospitalists
- Describe results



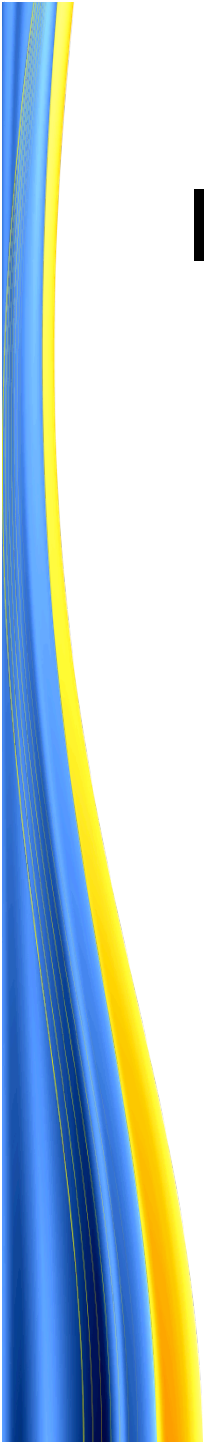
Background

- Handoffs of care are:
 - Vulnerable
 - Flawed
 - Increasingly common
- I-PASS Handoff Study
 - Multisite study to implement a refined handoff bundle for resident physician change of shift handoffs at 9 pediatric institutions

I-PASS Study Handoff Bundle



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Intervention: The I-PASS Mnemonic

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; timeline and ownership

S Situation Awareness & 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

Results of the I-PASS Resident Study

- 23% reduction in overall medical error rates
- 30% reduction in preventable adverse events
- 21% reduction in near misses/non-harmful medical errors
- No change in rate of non-preventable adverse events

The NEW ENGLAND JOURNAL of MEDICINE

SPECIAL ARTICLE

Changes in Medical Errors after Implementation of a Handoff Program

A.J. Starmer, N.D. Spector, R. Srivastava, D.C. West, G. Rosenbluth, A.D. Allen, E.L. Noble, L.L. Tse, A.K. Dalal, C.A. Keohane, S.R. Lipsitz, J.M. Rothschild, M.F. Wien, C.S. Yoon, K.R. Zigmont, K.M. Wilson, J.K. O'Toole, L.G. Solan, M. Aylor, Z. Bismilla, M. Coffey, S. Mahant, R.L. Blankenburg, L.A. Destino, J.L. Everhart, S.J. Patel, J.F. Bale, Jr., J.B. Spackman, A.T. Stevenson, S. Calaman, F.S. Cole, D.F. Balmer, I.H. Hepps, I.O. Lopreiato, C.E. Yu, T.C. Sectish.

N ENGL J MED 371;19 NEJM.ORG NOVEMBER 6, 2014

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Pediatric Hospitalist Division

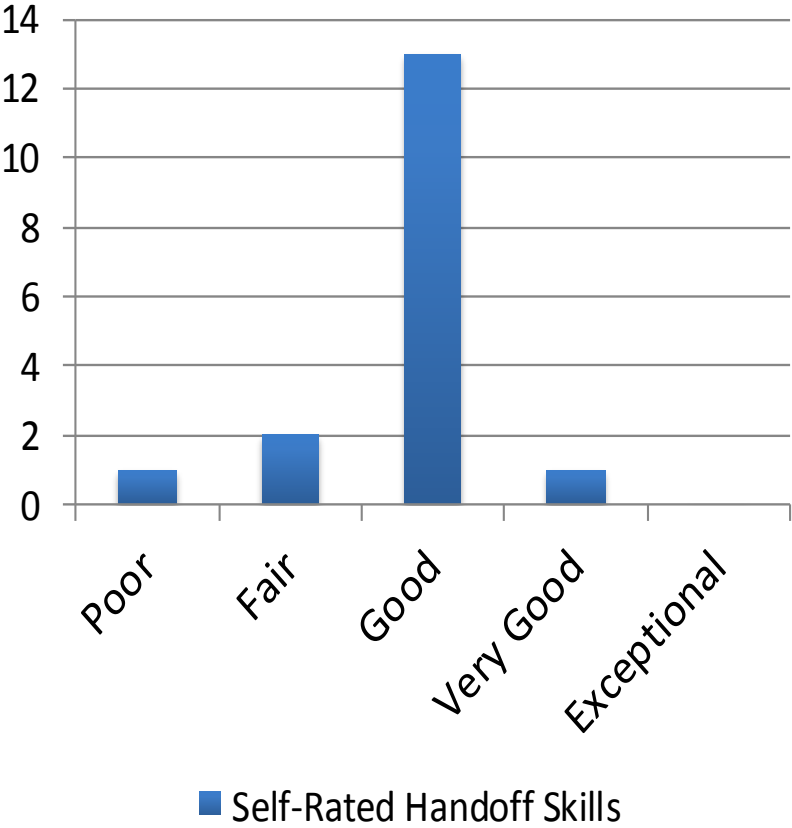


Baseline Hospitalist Handoff Skills

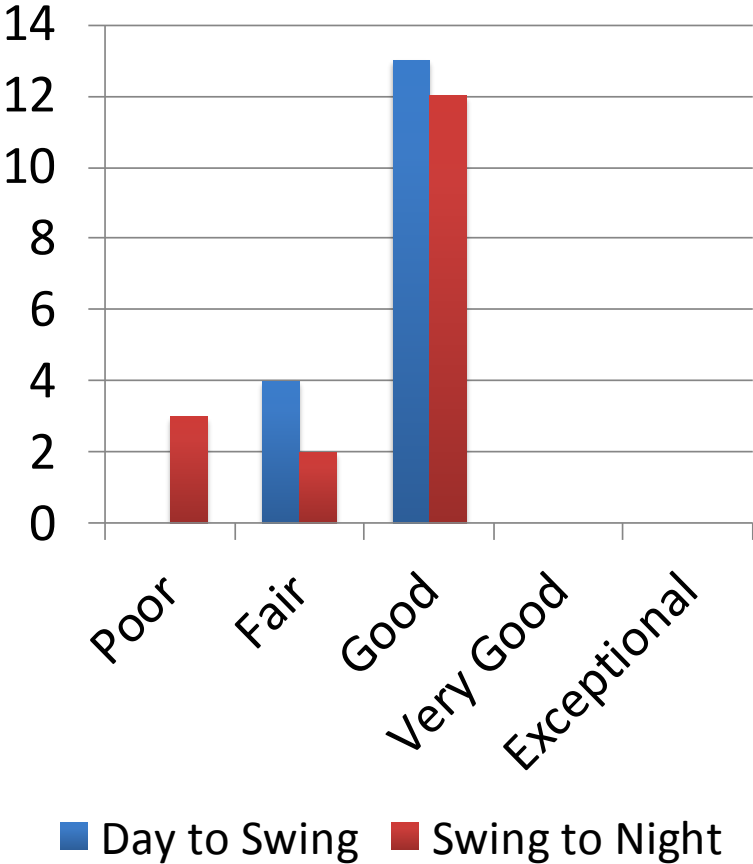
- Method of handoff training:
 - 71% via role modeling by a supervising physician
 - Only 17% reported having formal handoff training
- 82% had never used a standardized handoff approach
- The single most important aspect needing improvement:
 - 67% stated consistency in content and delivery

Baseline data: Handoff Report Card

Self: Handoff Skills



Division: Handoff Quality





Aims of Hospitalist I-PASS Study

Goal: Sustained improvements in quality of handoff communication 12 months after implementation of handoff bundle as defined by:

Primary Outcomes:

1. Adherence to mnemonic (by direct observation)
2. Usage of new EMR-embedded handoff tool
3. Completion of 12 direct observations by each hospitalist
4. Participation in > 6 PDSA cycles

Secondary Outcomes:

1. Improvement in satisfaction with handoff process & tools
2. Improvement in confidence with peer observations and feedback

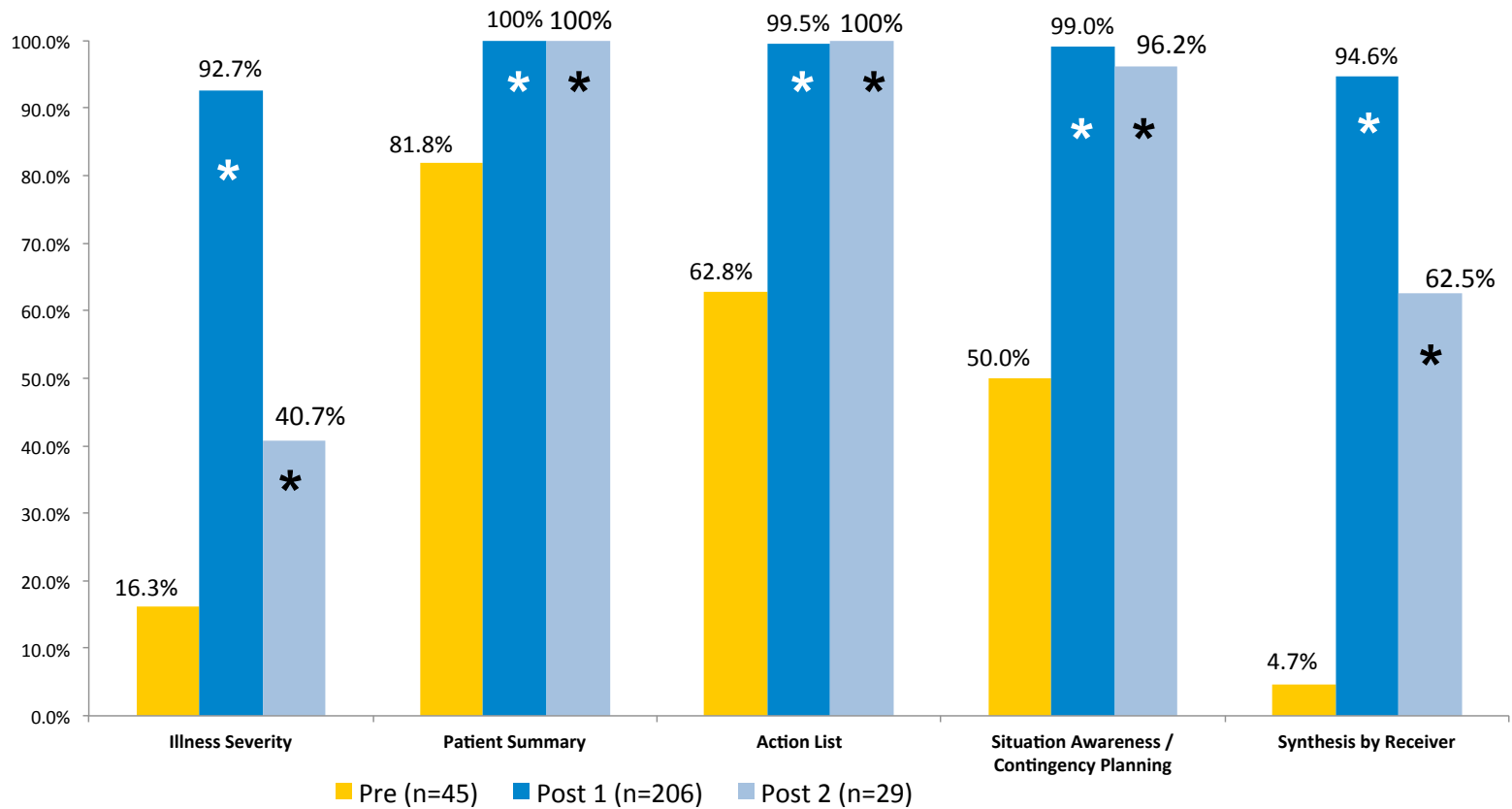


Methods

- Adapted the I-PASS bundle:
 - 3 hour faculty retreat with simulation
 - Embedded I-PASS mnemonic into our EMR
 - Adapted the direct observation tool
 - Peer observation and feedback training
 - Leveraged the ABP Maintenance of Certification (MOC) Part IV requirement
 - Complete 12 peer handoff observations with feedback
 - Attend >6 PDSA cycle meetings
- Surveyed pre, at 8 mos and 12 mos post-intervention
- Stealth observations at 12 months for sustainability

Adherence to Mnemonic

Ratings of “Always” & “Usually” of I-PASS elements



* indicates statistical significance from baseline

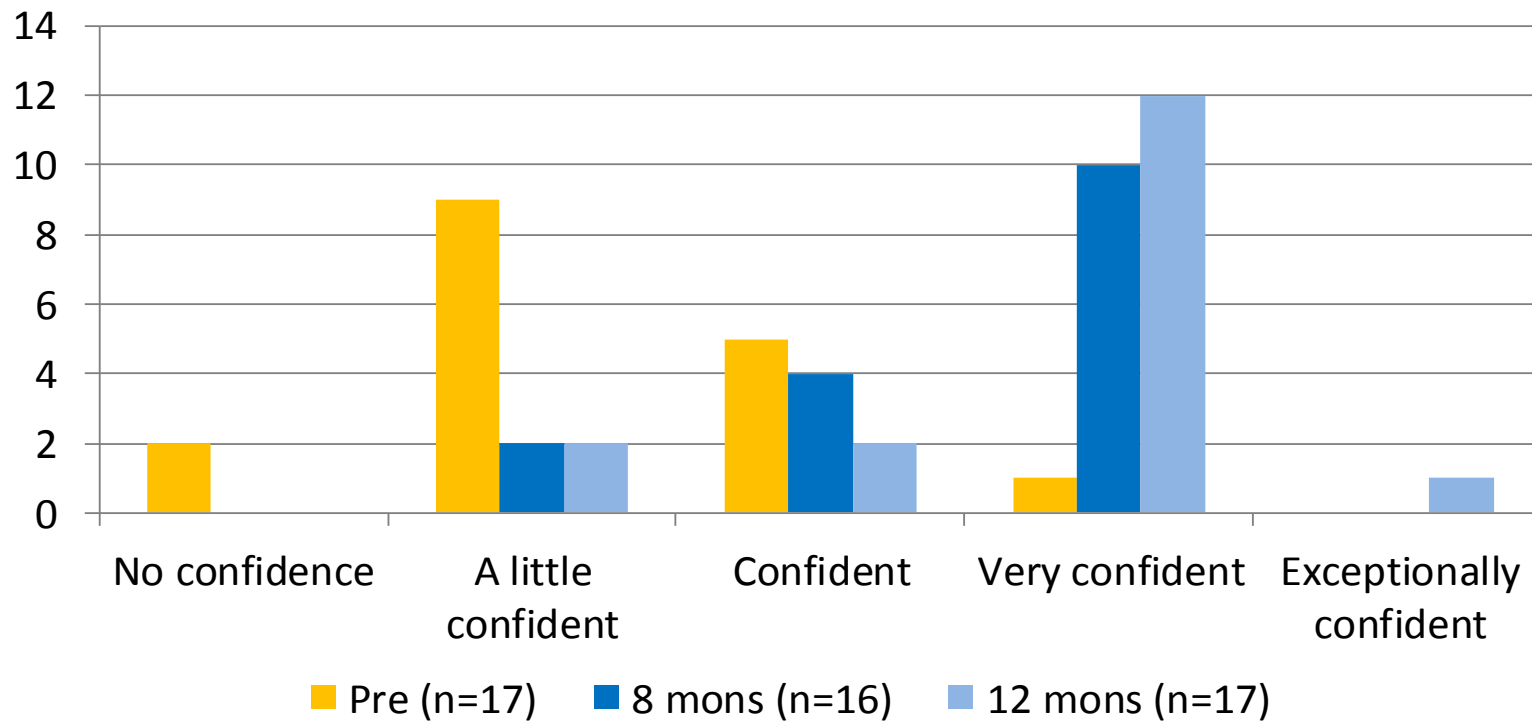
Quality of Information on Printed Handoff Tool

Quality of information on printed handoff tool:	Pre (n=17) "Always"	Post (n=17) "Always"	P-value*
Demographics (name, room#, MR#) are correct	17.6%	82.4%	0.0002
Reason for admission is correct	5.9%	35.3%	0.035
Patient summary is correct	5.9%	23.5%	0.055
Medications are correct	0.0%	88.2%	<.0001

Quality of information on printed handoff tool:	Pre (n=17) "Usually" & "Always"	Post (n=17) "Usually" & "Always"	P-value*
To do list is correct	41.2%	94.1%	0.0020
Contingency plans are correct	11.8%	94.1%	<.0001
Special devices identified correctly	29.4%	94.1%	0.0020

* p-value was calculated using Likert scale (Never, Rarely, Sometimes, Usually, Always) by Wilcoxon test.

Level of confidence in providing peers immediate verbal feedback on their handoff skills?

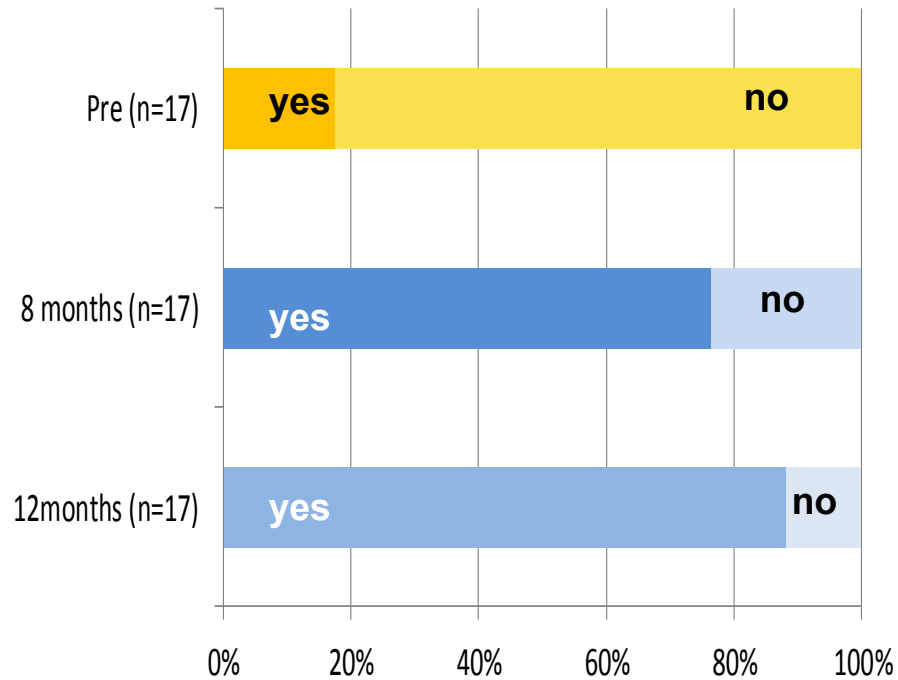


Pre vs. 8 months: $p=0.0005$

Pre vs. 12 months: $p=0.0001$

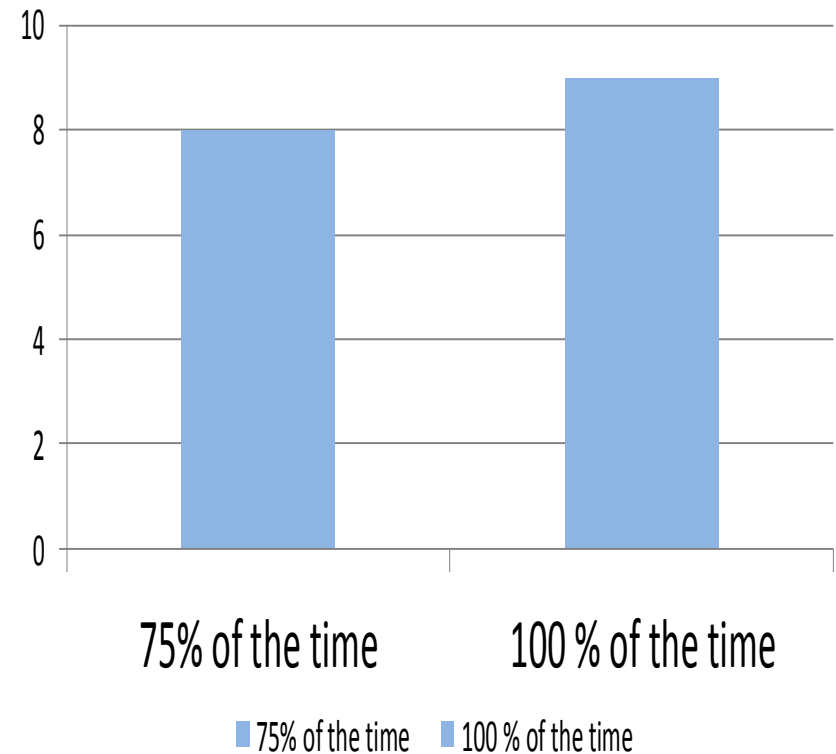
8 months vs. 12 months: $p=0.63$

Do you use or have you ever used a standardized approach for handoffs?



Pre vs. 8 months: $p=0.0020$
 Pre vs. 12 months: $p=0.0005$
 8 months vs. 12 months: $p=0.50$

How often do you still (12 months post-implementation) use I-PASS structure in your handoffs?





Conclusions

- Hospitalists still using the I-PASS mnemonic
 - Greatest attrition with “Illness Severity” and “Synthesis by Receiver”
- Information on printed handoff tool with high quality for most elements
- Successful implementation of peer-peer observations and feedback
 - Resulted in increased confidence
 - Allowed all division members to complete requirements for MOC Part IV



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- Hawaii Pediatric Association Research & Education Foundation
- I-PASS Executive Council

**Better handoffs.
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