

Improving Transitions of Care: I-PASS Handoff Initiative

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on behalf of the Core I-PASS Implementation Team for Internal Medicine:

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Context

- Shorter shifts → more frequent handoffs
- Having a cross-covering physician increases risk of a potentially preventable adverse event by 6-fold
- The CLER Transitions of Care domain calls for:
 - Standardized format for handoffs
 - Standardized process for handoffs (e.g. Epic handoff tool)
 - Process for supervision of handoffs

Opportunities identified for improvement during CLER needs assessment at BMC

- Education in optimal handoffs
 - Less than half of training programs reported that they had any formal training in handoffs
- Quality of handoffs
- Consistency across training programs
- Supervision of handoffs

I-PASS at BMC

- Transitions of Care subcommittee formed 2014 of residents and faculty stakeholders from different programs to develop a plan for improving Transitions of Care at BMC
 - Endorsed I-PASS handoff bundle
 - Best evidence for reducing preventable adverse events
- Chris Landrigan, I-PASS Study PI, gave Medicine Grand Rounds Oct 2014, during Quality Week
- Obtained BMC leadership support to move towards I-PASS as handoff format for physicians and nurses across BMC
 - Nursing is currently rolling out a bedside handoff initiative “I-PASS with SAFETY”

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, J.H. Hepps, J.O. Lopreiato, C.E. Yu, T.C. Sectish, and C.P. Landrigan, for the I-PASS Study Group*

30% reduction

23% reduction

	Number of errors (rate per 100 patient admissions)		
	Pre (n=5516 admissions)	Post (n=5571 admissions)	P-value
Overall rate of medical errors	24.5	18.8	<0.001
Preventable adverse events	4.7	3.3	<0.001
Near misses / non harmful medical errors	19.7	14.5	<0.001
Non-preventable Adverse Events	3.0	2.6	0.48

Starmer AJ et al., New Engl J Med 2014; 371:1803-12

The I-PASS Mnemonic

I	Illness Severity	<ul style="list-style-type: none">• Stable, “watcher,” unstable
P	Patient Summary	<ul style="list-style-type: none">• Summary statement• Events leading up to admission• Hospital course• Ongoing assessment• Plan
A	Action List	<ul style="list-style-type: none">• To do list• Timeline and ownership
S	Situation Awareness and Contingency Planning	<ul style="list-style-type: none">• Know what’s going on• Plan for what might happen
S	Synthesis by Receiver	<ul style="list-style-type: none">• Receiver summarizes what was heard• Asks questions• Restates key action/to do items

Participation in Society of Hospital Medicine- IPASS Mentored Implementation Program

- With program leadership support, Internal Medicine program applied to participate and was selected
- AHRQ-funded project with the aim of disseminating I-PASS to 32 additional institutions
- We have been highlighted as site that has completed all milestones thus far
- Allows access to all of the I-PASS curricular materials
- In scope for program:
MP3 and MP4



I-PASS training completed to date

- With the support of GME leadership, every incoming BMC intern participated in simulated training in I-PASS handoffs at orientation
 - 1 facilitator: 1 to 2 groups of 3 interns, each intern practiced giving, receiving, and observing a handoff
- Internal Medicine noon conference held in early June for PGY2s and PGY3s and supplemental curriculum planned for July ambulatory half day sessions
- 4 champion trainings held for Chief Residents and faculty from many BMC departments

A big ***thank you*** to champions/facilitators in Dept of Med

- **Served as facilitators for Intern Orientation:**
 - Sheilah Bernard
 - Rachel Casas
 - James Hudspeth
 - Nyra Khetarpal
 - Rob Lowe
 - Rachel Simmons
 - Mike York
 - David Yuh
 - All Chief Residents: Nick Bosch, Katy Thompson Brunner, Faisal Rahman, Usman Tahir, Stephanie Toth, Sasha Wong
- **Completed champion training:**
 - Patrick Fleming
 - Henri Lee
 - Aravind Menon
 - Tom Ostrander
 - Carol Sulis
 - Deborah Whalen
 - Jordan Yoder

Plan for MP3 and MP4 services

- We are asking those on MP3 and MP 4 to:
 1. Conduct 2 observations and feedback of handoffs over the 3 week rotation and use the handoff observation forms (of giver, receiver, and written).
 - Team Resident: week 1
 - Attending: week 2
 2. Fill out the end-of-rotation survey on the quality of handoffs.
- Faculty who participate in this initiative will be eligible for **MOC Part 4**.

Goals of observations and feedback of handoffs

- Accountability for use of I-PASS and to ensure sustainment
- Opportunity for formative feedback
- Increase supervision of handoffs
- While MP3 and MP4 are officially participating in the I-PASS Mentored Implementation program, we will likely be developing a similar plan for observations and feedbacks of handoffs on other services
 - At a minimum, for trainees who don't rotate on those services

Next steps for I-PASS handoffs across BMC

- Partnering with CIR housestaff QI Council
- Forming a BMC I-PASS Committee with a representative from each training program
- Each program will be expected to:
 - Use I-PASS handoff format
 - Use Epic handoff tool
 - Work with eMERGE team to optimize
 - Develop a plan for supervision of handoffs
 - Submit data on observations of handoffs so we can follow adoption

EPIC I-PASS handoff tool (currently most Medicine teams are using)

The screenshot displays the EPIC I-PASS handoff tool interface. The top section shows a search for "pepper" with results for "Pepper, Sergeant" (35 y.o. / M, E6W12/E6W12-01, Community acquired pneumonia (Additional Hospital Problems), MRN 203377). The bottom section shows a detailed medication list for "Pepper, Sergeant #203377 (35 y.o. M) (Adm: 11/19/13) ENP 6W-E6W12-E6W12-01".

Medication	Dose/Rate, Route, Frequency	Last Action
abacavir-lamivudine 600-300 mg per tablet 1 tablet	1 tablet, Oral, Daily	Ordered
acetaminophen tablet 650 mg	650 mg, Oral, Q6H SCH	Ordered
acetaZOLAMIDE tablet 500 mg	500 mg, Oral, TID	Ordered
acetylcysteine 200 mg/mL (20 %) solution 600 mg	600 mg, nebu, Q4H	Ordered
amphotericin B (FUNGIZONE) 60.35 mg in dextrose 5 % 500 mL IV	0.7 mg/kg, IV, Q24H SCH	Ordered
azithromycin 500 mg in sodium chloride 0.9 % 250 mL IV	500 mg, IV, Q24H	New Bag: 09/19 1533
bupivacaine epidural bolus from bag 3 mL	3 mL, Epid, Once	Ordered

The right-hand panel shows the "Handoff" section for "Pepper, Sergeant" (Hospitalist). It includes sections for "Illness Severity" (8, B, abc, Insert SmartText, More), "Patient Summary/Active Issues" (34m hx uncomplicated DM type I and HTN admitted with 1 week of progressive pleuritic R CP, SOB, cough, low-grade fever, hypoxia and ??bilateral hazy airspace disease. Pneumococcal bacteremia, ceftxne + azithro), "Action List (To Do)", and "Situational Awareness (Contingency)".

How faculty can support the I-PASS handoff initiative

- Familiarize yourself with I-PASS and support the I-PASS format
- Emphasize the importance of transitions of care in optimizing patient safety
- Support a protected space and time for handoffs
- Participate in this initiative by conducting live handoff observations to be eligible for MOC Part 4 credit
 - BMC now has MOC portfolio sponsor status from the American Board of Medical Specialties and we are working towards making this initiative institutionally sponsored for MOC

Future directions in transitions of care

- Inter-professional communication at care transitions
- Communication between consultative and primary services
- Other transitions in addition to shift-to-shift
 - Team to team (e.g. ED to inpatient), floor to MICU, inpatient to outpatient

Learn more about I-PASS by watching the 24 minute “Core Content Video”

- www.hospitalmedicine.org/ipass (When you go to this link, it says "access denied." Ignore that. Go up to the right top corner and click "log on.")
- username: BMC_IPASS
- password: Ipass123
- Under "Front-Line Provider Training Materials" → **IPASS Core Content Video Module.**

Thank you for your support of this Quality Improvement and Educational initiative that we believe will have a positive impact on patient safety.

Please let us know if you have any comments or feedback now and throughout the year.

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