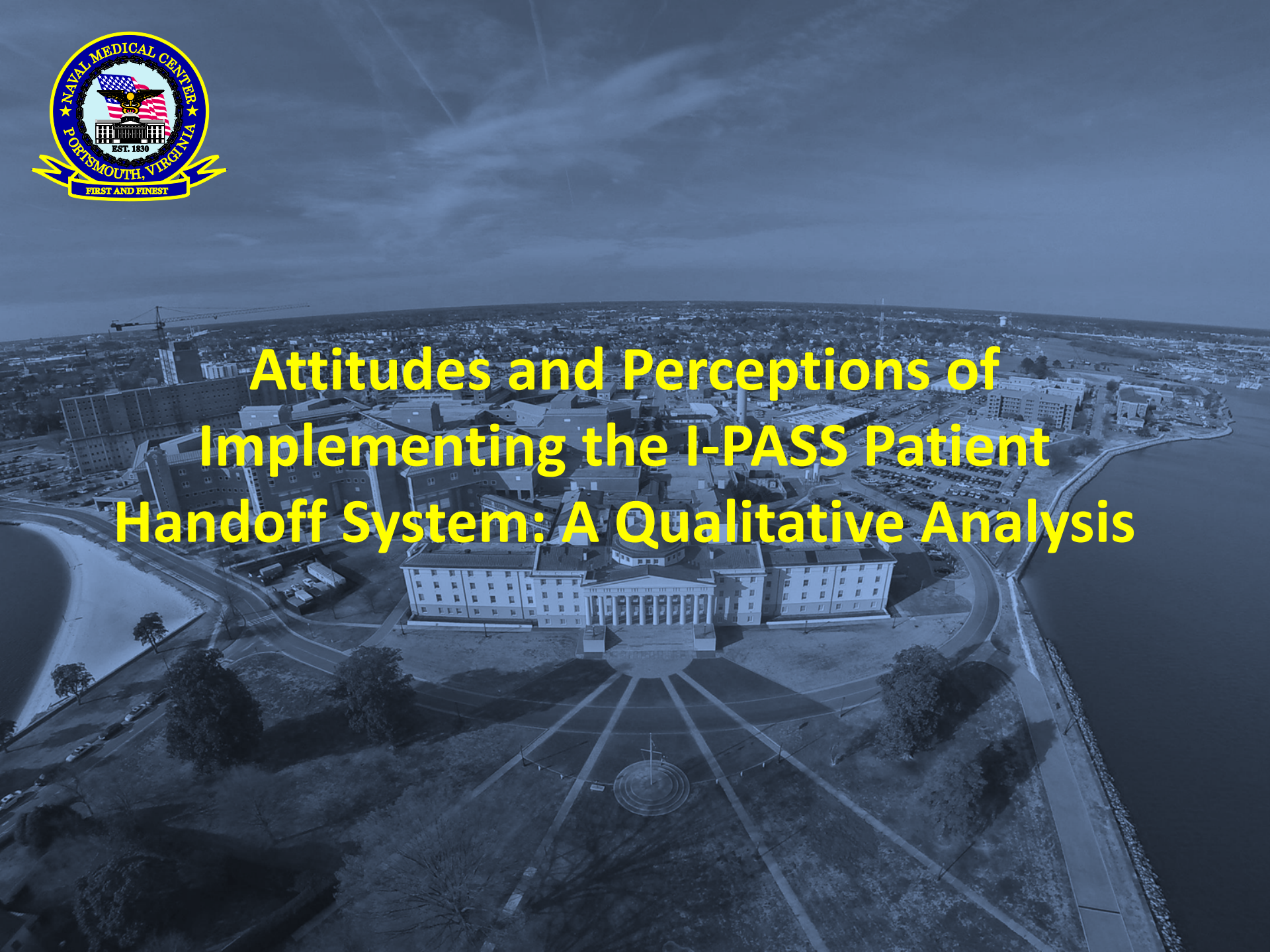

Attitudes and Perceptions of Implementing the I-PASS Patient Handoff System: A Qualitative Analysis

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Disclosures

- CAPT Craig A. Cunningham has no relevant financial or non-financial relationships to disclose relating to the content of this activity.
- The study protocol was approved by the Naval Medical Center Portsmouth Institutional Review Board in compliance with all applicable Federal regulations governing the protection of human subjects-NMCP.2016.0038
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Learning Objectives

At the end of the presentation, the learners will be able to:

1. Describe the importance of a standardized patient turnover system.

2. Summarize the steps in the Plan, Do, Study, Act (PDSA) process.

3. List the common facilitators, barriers, and challenges with adherence to a standardized patient turnover system.

Team Acknowledgement

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Background/Significance

- Recent local ACGME faculty survey
  - Handoffs inefficient
  - Relevant patient information lost during shift change
- National I-PASS study group[1-6]
- I-PASS implemented at our MTF using PDSA framework[12] beginning with pediatric resident training

*ACGME - Accreditation Council for Graduate Medical Education
MTF – Military Training Facility
I-PASS - Illness severity, Patient summary, Action list, Situation awareness and contingency planning, Synthesis by receiver

Purpose

To describe the healthcare medical resident learner experiences implementing the I-PASS patient handoff system within the military healthcare system (MHS) and to identify:

- Challenges
- Barriers
- Facilitators

Description of I-PASS Process "7-element" Bundle

1. Mnemonic
2. 2-hour workshop (TeamSTEPPS and I-PASS techniques)
3. 1-hour role playing and simulation session
4. Computer module for independent learning
5. Faculty development program
6. Direct observation tools (faculty to provide feedback to residents)
7. Process change and culture change campaign

*TeamSTEPPS – Team Strategies & Tools to Enhance Performance & Patient Safety

PDSA "I-PASS Adherence" Cycle 1

Plan

Use paraprofessional observer to observe patient handoffs to produce a baseline understanding of I-PASS adherence

Executable steps

- Observer introductions
- Observer complete I-PASS observation tool
- Observer distribute satisfaction survey

Observation Adherence Assessment

Item	Response format
1. Was a situational overview provided by the resident giving the handoff?	Yes, No
2. Illness Severity: Identification as stable, "watcher," or unstable	Never, Rarely, Sometimes, Usually, Always
3. Patient Summary: Summary Statement, events leading up to admission, hospital course, ongoing assessment, plan	
4. Action List: To do list; timeline and ownership	
5. Situation Awareness/Contingency Planning: Know what's going on; plan for what might happen	
6. Synthesis by Receiver: Ensures receiver summarizes what was heard, asks questions, restates key action/to do items	
7. Giver: Actively engages receiver to ensure shared understanding of patients	
8.Giver: Appropriately prioritizes key information, concerns or actions	
9. Receiver: Verbalize a concise, accurate summary of each patient	
10. Receiver: Appear focused, engaged, and demonstrate active listening skills	
11. Tangential or unrelated conversation	
12. Overall impression of the pace of the handoff	Very slow pace/inefficient, Slow pace/inefficient, Optimally paced/efficient but not rushed, Fast/pressured pace, Very fast/pressured pace
13. Impression of the number of clarifying questions asked by the receiver	Insufficient number of questions, appropriate number of questions, excessive number of questions

PDSA "I-PASS Adherence"
Cycle 1

Do "what we observed"

- 59.4% adherence
- 50% satisfied with turnover
- Limited faculty involvement

PDSA "I-PASS Adherence" Cycle 1

Study "lessons learned"

- Paraprofessional observer can effectively assess adherence
- Immediate performance feedback not consistently provided

PDSA "I-PASS Adherence" Cycle 1

Act "conclusions"

- Produced baseline understanding I-PASS adherence
- Adherence not at acceptable level
- Resident learners likely benefit from immediate performance feedback

PDSA "I-PASS Adherence"
Cycle 2

Plan

Use paraprofessional observer to provide immediate performance feedback

Executable steps

- Observer continue to complete observation tool
- Observer continue to distribute satisfaction survey
- Observer provide immediate verbal feedback
- Observer provide written feedback

PDSA "I-PASS Adherence"
Cycle 2

Do "what we observed"

- Paraprofessional observer welcomed
- 85.6% adherence (26.2% improvement)
- 55.9% satisfied (5.9% improvement)
- Problem versus system based confusion

PDSA "I-PASS Adherence" Cycle 2

Study "lessons learned"

Paraprofessional observer can effectively provide feedback related to system adherence

PDSA "I-PASS Adherence"
Cycle 2

Act "conclusions"

- Still room for more improvement in adherence and satisfaction
- Residents likely benefit from further instruction of problem versus system based

PDSA "I-PASS Adherence"
Cycle 3

Plan

Continue use of paraprofessional observer to improve adherence and produce a preliminary understanding the resident learner experience

Executable steps

- Para professional observer for performance feedback
- Instruction problem versus system based
- Interviews

PDSA "I-PASS Adherence" Cycle 3

Do "what we observed"

- Paraprofessional observer continued to be welcomed
- 85% adherence (consistent with cycle 2)
- Written turnover reports needed improvement
- Preliminary global "adherence" interview themes
  - Critical need for ongoing observational feedback
  - Effectiveness of paraprofessional observer in improving adherence

PDSA "I-PASS Adherence" Cycle 3

Study "lessons learned"

- Paraprofessional observer effectively assess adherence, provide feedback, and improve adherence
- Residents appreciate the feedback

PDSA "I-PASS Adherence" Cycle 3

Act "conclusions"

- Residents sustaining a high level of adherence
- Additional improvements would likely require increased faculty involvement
- Next logical step to complete full qualitative analysis of interviews to identify challenges, barriers and facilitators.

Results

11 medical residents completed interviews

Challenges- factors that hampered I-PASS implementation and/or adherence but residents were easily amenable to change or modifiable at the facility level

Barriers- factors that hampered I-PASS implementation and adherence but were **NOT** easily amenable to change at the facility level and required enterprise wide solutions and/or substantial additional resources to overcome

Facilitators- factors that enhanced I-PASS implementation and adherence

Challenges: Lack of Attending Participation in Turnover

"I think we are very infrequently observed doing turnovers. Maybe once or twice at the beginning of each month to make sure things are going well. By that point in time, that second or third year, who's experienced in this is already kind of running the show. They perhaps are the ones who supervise turnover, make sure it gets done correctly."

Challenges: Unfamiliar Process & Terminology Use

"I mean just trying to remember all the parts and remember to start with an illness severity and things that we don't usually start with; just getting into the habit. I think more than anything, it was just habit building and sort of like you play how you practice. If we weren't doing it correctly, then we fell into the same patterns that we had been doing before I-PASS."

"I remember back then, we use the term watcher. Sometimes it's like a bed check. You didn't have to even know that—watcher had a different connotation back then where it was just like, you don't have to worry about them. They're just a watcher. They're just here. You have nothing to do, right?"

Challenges: Inconsistent Peer Accountability to Process

"Because I think a lot of times, when you get used to people—if there's a resident I know very well that I trust, I don't have to look them in the eye and say, 'Do you synthesize what I'm saying?' I know that resident. I've seen that resident before take turnover. I know that that resident synthesizes the information, because I see them implement it in patient care. I don't have to physically say to that resident, 'Did you synthesize what I just told you?' Because I trust that person. I know that they did."

Barriers: Limitations in enterprise wide EMR

"This report sheet. It doesn't look like the ones you see the census on the ward, or the PICU. It's a whole different system. It's a whole different EMR that generates that, and it's not set up the same way. It does not lend itself to translation into I-PASS system."

"…. It would be much better if we just had a decent electronic records system, which I know is not the point of this study…."

*EMR – Electronic Medical Record
PICU – Pediatric Intensive Care Unit

Barriers: System related software incompatibilities

"The interface is god-awful. The next time you are in the NICU just ask one of the residents to show you, and it just doesn't make sense."

*NICU – Neonatal Intensive Care Unit

Barriers: “work around” workload burdens

“I think that can become a bit burdensome collecting and updating all that data every day. Certainly, any way that that data could be automatically gathered and populated in particular fields, would be of a huge benefit, both from maximizing efficiency and then minimizing unnecessary work.”

Facilitators: Conciseness

"I think it's been very effective. I think it helped to reduce the time that we spend in turnover, while ensuring that we're not dropping any information. In doing so, I think it makes—it doesn't just make it more efficient from a time standpoint, but you're able to pay attention better, cuz you're not talking through 10 or 15 minutes about the patient, so you can kind of—you get what you need to get. It doesn't get lost in the shuffle of information."

Facilitators: Standardized/Structured Process

"Being on the receiving end you come to realize what information you need, and so knowing to expect what the giver will be giving you, not only does that help like shape—help shape the way I receive the information, but also as a giver it makes me realize, 'Well, if this is what I am hearing as a receiver and these are the important aspects and important points, then as a giver I know that in return I will highlight those things or at least include them every time I do turnover.'

"It gives you a common language between the recipient and the giver of information. Then you're all on the same page between shifts."

Facilitators: Observation and Feedback

“I think it's good. I think it's good for people to hear the feedback, because we think we're doing a great job every time we turn over, and that we're giving the person everything. The person is receiving everything. I think it's good for an outside person to say, "Yeah, they probably did get everything. Here're the things that I didn't actually hear or see you do that are part of the format." It's good for people to know, "Oh yeah, maybe I thought I did it, or maybe I-we understood each other that that happened, but I didn't actually verbalize it." Maybe someone else didn't catch it, because I didn't actually verbalize it.”

Key Takeaways

- Need to assess EMR and software compatibilities to produce printed turnover reports
- Use of paraprofessional observer to improve adherence followed by attending involvement
- Need for consistent patient turnover throughout the facility for improved compliance

References

Bigham, M.T., Logsdon, T.R., Macicone, P.E., Landrigan, C.P., Hayes, L.W., Randall, K.H., Grover, P., Collins, S.B., Ramirez, D.E., O"Guin, C.D., Williams, C.I., Warnick, R.J., Sharek, P.J. (2014). Decreasing handoff-related care failures in children's hospitals. *Pediatrics,* 134(2): e572-e579. https://doi.org/10.1542/peds.2013-1844

Braun, V., & Clarke V. (2008). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2):77-101. https://doi.org/10.1191/1478088706qp063oa

Institute for Healthcare Improvement. (2020). *Science of Improvement: Testing changes.* http://www.ihi.org/resources/Pages/HowtoImprove/ScienceofImprovementTestingChanges.aspx

Labov, W. & Waletzky, J. (2003). Narrative analysis: Oral versions of personal experience. *Essays on the verbal and visual arts*., 74-104.

Mateo, M.A. & Kirchhoff, K.T. (2009). *Qualitative research for nursing practice*. In Research for advanced practice nurses: From evidence to practice. (3rd Ed.). New York: Springer Publishing Company.

O'Toole, J.K., West, D.C., Starmer, A.J., Yu, C.E., Calaman, S., Rosenbluth, G., Hepps, J.H., Lopreiato, J.O., Ladrigan, C.P., Sectish, T.C., Spector, N.D. (2014). Placing faculty development front and center in a multisite educational initiative: Lessons from the I-PASS Handoff study. *Academic Pediatrics, 14*(3):221-224. https://doi.org/10.1016/j.acap.2014.02.013

References

Polit, D.F. & Beck, C.T. (2012) Nursing research; generating and assessing evidence for nursing practice. Ninth ed. Philadelphia, PA: Wolters Kluwer Lippincott Williams & Wilkins; 2012.

Sandelowski, M. & Barroso, J. (2003). Writing the proposal for a qualitative research methodology project. *Qual Health Res, 13*(6):781-820. https://doi.org/10.1177/1049732303013006003

Sheth, S., McCarthy, E., Kipps, A.K., Wood, M., Roth, S.J., Sharek, P.J., & Shin, A.Y. (2016). Changes in efficiency and safety culture after integration of an I-PASS–supported handoff process. *Pediatrics, 137* (2): e20150166. https://doi.org/10.1542/peds.2015-0166

Starmer, A.J. & Landrigan, C.P. (2015). Changes in medical errors with a handoff program. *The New England Journal of Medicine, 372*(5): 490-491. https://doi.org/10.1056/NEJMc1414788

Starmer A, Landrigan C, Srivastava R, Wilson, K.M., Allen, A., Mahant, S., Noble, E., Sectish, T., Blank, J.S., Tse, L.L., Spector, N.D., West, D.C., & I-PASS Education Executive Committee. (2013). I-PASS Handoff Curriculum: Faculty observation tools. *MedEdPORTAL, 9*:9570. https://doi.org/10.15766/mep_2374-8265.9570

References

Starmer, A.J., O'Toole, J.K., Rosenbluth, G., Calaman, S., West, D.C., Bale, J.F. Jr., Yu, C.E., Noble, E.L., Tse, T.T., Srivastava, R., Landrigan, C.F., Sectish, T.C., Spector, N.D., & I-PASS Study Education Executive Committee. (2014). Development, implementation, and dissemination of the I-PASS handoff curriculum: A multisite educational intervention to improve patient handoffs. *Academic Medicine, 89*(6): 876-884. https://doi.org/10.1097/ACM.0000000000000264

Starmer, A.J., Spector, N.D., Srivastava, R., West, D.C., Rosenbluth,G., Allen, A.D., Noble, E.L., Tse, L.L., Dalal, A.K., Keohane,C.A., Lipsits, S.R., Rothschild, J.M., Wien, M.F., Yoo, C.S., Zigmont, K.R., Wilson, K.M., O'Toole, J.K., Solan, L.G., Aylor, M., Bismilla, Z. , . . . Landrigan, C.P. (2014). Changes in medical errors after implementation of a handoff program. *New England Journal of Medicine, 371*(19): 1803-1812. https://doi.org/10.1056/NEJMsa1405556

Description of I-PASS Process Observation Tool-Giver

VERBAL HANDOFF OBSERVATION TOOL – GIVER

Observer Information:
Name: **Date:** _ _/_ _/_ _ *(dd/mm/yy)* **Obs. Start Time:** _ _ : _ _ am/pm **Obs. End Time:** _ _ : _ _ am/ pm

How well do you know the patients whose handoff you are evaluating? Very well Somewhat well Not at all

Resident Information:
Name: _____ **PGY Level:** _____ **Total number of patients discussed during the handoff :** _____

Type of Handoff
1. Please indicate the type of handoff you observed: Individual Team

Situational Overview (Big Picture)
2. Was a situational overview provided by the resident giving the handoff (e.g. description of the "big picture" of what will need to be prioritized by the receivers of the handoff): Yes No

Indicate the frequency that the specific element of the mnemonic was used throughout the handoff.

Verbal Mnemonic	Description	Never	Rarely	Sometimes	Usually	Always
3. Illness Severity	Identification as stable, "watcher", or unstable					
4. Patient Summary	Summary statement, events leading up to admission, hospital course, ongoing assessment, plan					
5. Action List	To do list; timeline and ownership					
6. Situation Awareness/ Contingency Planning	Know what's going on; plan for what might happen					
7. Synthesis by Receiver	Ensures receiver summarizes what was heard, asks questions, restates key action/to do items					

Rate the frequency with which the resident who gave the handoff did the following:	Never	Rarely	Sometimes	Usually	Always
8. Actively engages receiver to ensure shared understanding of patients (Encouraged questions, asked questions, considers learning style of receiver)					
9. Appropriately prioritizes key information, concerns, or actions					

Rate the frequency with which the resident who gave the handoff did the following:	Never	Rarely	Occasionally	Fairly Often	Very Often
10. Miscommunications or transfer of erroneous information					
11. Omissions of important information					
12. Tangential or unrelated conversation					

13. Rate your overall impression of the *pace* of the handoff:

Very slow pace/ Very inefficient | Slow pace/ Inefficient | Optimally paced/ Efficient but not rushed | Fast/pressured pace | Very fast/pressured pace

14. What was especially effective about the handoff?	15. What aspect(s) of the handoff could be improved?	16. Additional comments:

17. Was the resident given feedback within 24 hours of your observation? Yes No

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Description of I-PASS Process Observation Tool-Receiver

VERBAL HANDOFF OBSERVATION TOOL – RECEIVER

Observer Information:

Name:_____ Date: _ _/_ _/_ _ *(dd/mm/yy)* Obs. Start Time: _ _ : _ _ am/pm Obs. End Time: _ _ : _ _ am/ pm

How well do you know the patients whose handoff you are evaluating? Very well Somewhat well Not at all

Resident Information:

Name:_____ PGY Level:_____ Total number of patients discussed during the handoff:_____

Type of Handoff

1. Please indicate the type of handoff you observed (check one): Individual Team

How frequently did the resident receiving the handoff do the following:	Never	Rarely	Sometimes	Usually	Always
2. Verbalize a concise, accurate summary of each patient					
3. Appear focused, engaged, and demonstrate active listening skills.					

4. Rate your impression of the number of clarifying questions asked by the receiver:

Insufficient number of questions Appropriate number of questions Excessive number of questions

5. What was especially effective about the handoff?	6. What aspect(s) of the handoff could be improved?	7. Additional comments:

8. Was resident given feedback within 24 hours of observing sign-out? Yes No

Stramer et.al, 2013

Description of I-PASS Process Study Team Feedback

I-PASS STUDY TEAM COMPLETED EVALUATION FOR REFERENCE - RECEIVER

Observer Information:

Name:_____ Date: _ _/_ _/_ _ *(dd/mm/yy)* Obs. Start Time: _ _ : _ _ am/pm Obs. End Time: _ _ : _ _ am/ pm

How well do you know the patients whose handoff you are evaluating? Very well Somewhat well Not at all

Resident Information:

Name:_____ PGY Level:_____ Total number of patients discussed during the handoff _____

Type of Handoff

1. Please indicate the type of handoff you observed (check one): X Individual Team

How frequently did the resident receiving the handoff do the following:	Never	Rarely	Sometimes	Usually	Always
2. Verbalize a concise, accurate summary of each patient				X	
3. Appear focused, engaged, and demonstrate active listening skills.				X	

4. Rate your impression of the number of clarifying questions asked by the receiver:

Insufficient number of questions X Appropriate number of questions Excessive number of questions

5. What was especially effective about the handoff?	6. What aspect(s) of the handoff could be improved?	7. Additional comments:
Limited interruptions Engaged, focused and not distracted Prompted "to do" Clarified contingency plans Redirected giver back to patient summary	Synthesis by receiver Limit commentary	

8. Was resident given feedback within 24 hours of observing sign-out? X Yes No

Stramer et.al, 2013

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