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Standardized Handovers

Transitions to Clerkships

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Pre-Workshop Survey

Before we begin, please complete the survey at the following link

https://www.surveymonkey.com/r/handoffpre

Or scan this QR code

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PURPOSE

- **ECHO-ICU** - Enhanced Communication of Handovers from the OR-to-ICU
  - Pilot study in Department of Anesthesiology and Pain Management
  - AIM: Reduce unintended events following handovers by 50% by improving the ***reliability*** of transfer of care process at all University of Texas Southwestern Hospitals by 2018
- Aim to introduce standardized patient handoffs to medical student education
  - Didactic & simulation
  - Feedback

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LEARNING OBJECTIVES

At the end of this session, learners will be able to:

1. Explain the consequences of an improper, incomplete, or poor handoff on patient safety.
2. Describe the purpose of a structured hand-off and distinguish it and its characteristics from a regular handoff.
3. Use SBAR as an example of one structured handoff and list the anatomy of a thorough and structured handoff.
4. Advocate for a structured handoff while on his/her clerkship and identify impediments to proper conditions for transfer of information.

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DEFINITION OF HANDOFF

- A ***handoff*** is a, real-time, interactive process of ***passing information*** from one person to another for the purpose of ensuring continuity and safety of a patients' care.
- In a variety of settings
  - Shift-to-shift
  - Transfer of care (OR to ICU, ER to floor, ICU to floor, etc.)
- Between a variety of healthcare providers
  - Attending to attending
  - Resident to resident
  - Nurse to nurse

Catchpole, et al, "Patient Handover from Surgery to Intensive Care: Using Formula 1 Pit-Stop and Aviation Models to Improve Safety & Quality", Pediatric Anesthesia, 17, 470-478, 2007
Lane-Fall MB, Brooks AK, Wilkins SA, Davis JJ, Riesenberg LA. "Addressing the mandate for hand-off education: a focused review and recommendations for anesthesia resident curriculum development and evaluation." Anesthesiology. 2014 Jan;120(1):218-29.
Greilich, MD et al, CS&E, Course 2, "CVICU Handoff Checklist", Feb 2011

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INCREASINGLY PROMINENT ISSUE

http://www.wsj.com/articles/how-to-make-hospitals-less-deadly-1463526075
http://www.nytimes.com/2009/09/03/health/03chen.html

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STATE OF HANDOFFS

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STATE OF HANDOFFS

- Average inpatient will have **24 handoffs**
- Duty hours restrictions have increased number of handovers by **30%**
- Handoff errors implicated in **>80% of all severe adverse events**
- Poor handoffs lead to
  - Delayed and missed diagnoses
  - Litigation and malpractice claims
  - Omitted patient information
  - Diagnostic testing errors
  - Treatment delays
  - Patient harm
  - Mortality

Roberston E. et al. "Interventions employed to improve intrahospital handover: a systematic review." Qual Saf 2014; 23:600-607
Pucher PH ; Johnston MJ ; Aggarwal R; et al. Effectiveness of interventions to improve patient handover in surgery: a systematic review. Surgery. 2015; 158: 85-95

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STATE OF HANDOFFS

Clinician Satisfaction
Culture of Safety Survey (HSOPS)

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BARRIERS TO EFFECTIVE HANDOFFS

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BARRIERS TO EFFECTIVE HANDOFFS

Table 3. Barriers to Effective Anesthesia Hand-off Communication

Standardization
- Absent or insufficient hand-off training
- Lack of evidence-based research to guide hand-off best practices
- Mnemonic difficulties: which one should be used and how should it be taught?
- Staff resistant to changes in hand-off system
- Lack of hand-off procedural protocols or tools
- Problems with the standardized protocols or tools
- Poor recognition and/or understanding of protocol or tool in use

General communication
- Lack of understanding of how to engage in an effective hand-off dialogue
- Omissions, errors, or misunderstandings
- Language communication barriers (*i.e.*, dialectic, accent, vernacular barriers)
- Social interactions occurring during handoffs
- Incorrect information recall
- Disorganized report
- Hierarchical culture that discourages questions
- Differences in clinical knowledge

Systems factors
- Multitasking during report
- Interruptions and distractions
- Lack of privacy
- Time constraints
- Too much noise
- Poor lighting

Clinical factors
- Patients with multiple complex, medical problems
- Too many patients (*e.g.*, ICU, pain, OB)
- Rapid case turnover
- Change in patient status during hand-off

Human factors
- Fatigue or illness
- Stressful shifts
- Memory limitations
- High staff turnover
- Information and sensory overload

Lane-Fall MB, Brooks AK, Wilkins SA, Davis JJ, Riesenberg LA. "Addressing the mandate for hand-off education: a focused review and recommendations for anesthesia resident curriculum development and evaluation." Anesthesiology. 2014 Jan;120(1):218-29.

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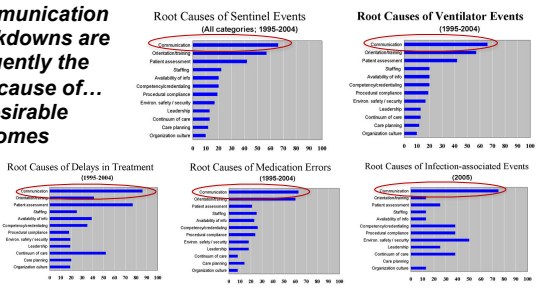
COMMUNICATION IS KEY

Joint Commission on Accreditation of Healthcare Organizations

Communication breakdowns are frequently the root cause of… undesirable outcomes



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COMMUNICATION IS KEY

NEED FOR HANDOFF EDUCATION

- 2006 The **Joint Commission** identified handoff communication as a National Patient Safety Goal
- 2008 **Institute of Medicine** report recommends all residents receive education in patient handoffs
- 2010 **ACGME** recognized this as a crucial competency and put into place requirements for programs to ensure resident competency in this skill, as well as ensuring an effective, monitored handoff process.

Keebler, Joseph R., et al. "Meta-Analyses of the Effects of Standardized Handoff Protocols on Patient, Provider, and Organizational Outcomes." Human Factors: The Journal of the Human Factors and Ergonomics Society (2016): 0018720816672309.
Lane-Fall MB, Brooks AK, Wilkins SA, Davis JJ, Riesenberg LA. "Addressing the mandate for hand-off education: a focused review and recommendations for anesthesia resident curriculum development and evaluation." Anesthesiology. 2014 Jan;120(1):218-29.

DEFINITION OF STANDARDIZED HANDOFF

- *Standardized patient handoffs* implement a **checklist, protocol, electronic resource, or mnemonic** into the handoff process
  - Aim to reduce barriers to effective handoff such as miscommunication, incorrect recall, and omissions

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ELEMENTS OF EFFECTIVE HANDOFF

- **Quantity** - only as much info as needed, and no more
- **Quality** - truthful, no information that is false or not supported by evidence
- **Relation** - info that is relevant and pertinent to discussion
- **Manner** - be as clear, brief and orderly as you can, avoids obscurity and ambiguity
- **Environment** - minimize distractions, face-to-face, protected time

TeamSTEPPS® 2.0
- **Check-Back** and closed-loop communication

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Team Stepps Pocket Guide 2.0

EFFECTS OF STANDARDIZED HANDOFF

- I-PASS Study
  - First major study to look at effectiveness of handoff improvement projects; 9 Pediatrics residency programs
  - **23% relative reduction** in overall medical-error rate
  - **30% relative reduction** in rate of preventable adverse events
  - **21% relative reduction** in rate of near misses and non-harmful medical errors
  - No significant change in percentage of time in a 24-hour period spent on handoffs
  - Proportion of residents who rated the overall quality of their handoff training as very good or excellent increased significantly after the intervention (**27.8% before and 72.2% after**)
- Subsequent meta-analysis have found standardized handoff positively affect outcomes for patients, providers, and organizations

Starmer et al. "Changes in Medical Errors after Implementation of a Handoff Program" N Engl J Med 2014; 371:1803-1812
Keebler, Joseph R., et al. "Meta-Analyses of the Effects of Standardized Handoff Protocols on Patient, Provider, and Organizational Outcomes." Human Factors: The Journal of the Human Factors and Ergonomics Society (2016): 0018720816672309.

RELEVANCE TO MEDICAL STUDENTS

- 2012 survey of clerkship directors
  - **34% of 3rd year** students perform handoffs, **93% of 4th year** students
  - Only 26% believed their handoff curriculum was adequate
- 2010 survey of medical students
  - **92% had strong negative reactions** to unsuccessful transitions, experiencing frustration, irritation, fear, and anger

O'Toole et al. "Closing the Gap: A Needs Assessment of Medical Students and Handoff Training" Journal of Pediatrics. 2013 May 162(5): 887-888
Koch et al. "Clinical Clerkship Students' Perceptions of (Un)Safe Transitions for Every Patient" Academic Medicine. 2014 Mar 89(3): 477-481

RELEVANCE TO MEDICAL STUDENTS

- Medical students do not lead in the majority of handoffs, but you
  - Have the opportunity to ***handoff your own patients*** on rotations
  - Will be responsible for ***updating written handoffs*** on your patients
  - Are in charge of ***calling consulted physicians*** about your patient
- As a medical student, you will observe many handoffs and will
  - Have opportunities to see what went well & what didn't
  - Be in a **position to affect change and improve quality of care**

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Standardized Handoff Tools

1) Introduction to SBAR & IPASS the BATON
2) Evaluation of handoff scenarios

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HOW TO USE HANDOFF TOOLS

- You will come across a variety of standardized handoff tools during clerkships, residency, and your career
  - Each tool has its own *benefits & drawbacks*
  - It is more important to understand how to implement the tools than memorize specific tools
- *TeamSTEPPS*® 2.0 Pocket Guide has two examples
  - **SBAR**
  - **IPASS the BATON**

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SBAR

- **S**ituation (a concise statement of the problem)
- **B**ackground (pertinent and brief information related to the situation)
- **A**ssessment (analysis and considerations of options - what you found/think)
- **R**ecommendation (action requested/recommended - what you want)

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I PASS the BATON

"I PASS THE BATON"

I	Introduction	Introduce yourself and your role/job (include patient)
P	Patient	Name, identifiers, age, sex, location
A	Assessment	Present chief complaint, vital signs, symptoms, and diagnoses
S	Situation	Current status/circumstances, including code status, level of (un)certainty, recent changes, and response to treatment
S	Safety Concerns	Critical lab values/reports, socioeconomic factors, allergies, and alerts (falls, isolation, etc.)
THE		
B	Background	Comorbidities, previous episodes, current medications, and family history
A	Actions	Explain what actions were taken or are required. Provide rationale.
T	Timing	Level of urgency and explicit timing and prioritization of actions
O	Ownership	Identify who is responsible (person/team), including patient/family members
N	Next	What will happen next? Anticipated changes? What is the plan? Are there contingency plans?

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HOW CAN I USE THIS ON ROTATIONS?

- Standardized handoffs aren't universally adapted, be prepared to encounter a wide variety of handoffs: good and bad
  - Try implementing **SBAR, IPASS BATON** & **Check-back** into your handoffs
  - Many of your residents, attendings, and clinical staff may not be aware of these tools, try discussing the pros & cons of these methods with them
- Be proactive when you see potentially dangerous or ineffective handoffs using *TeamSTEPPS*® 2.0
  - **Two-Challenge Rule** - voice your concern at least two times
  - **CUS** - I am **C**oncerned, I am **U**ncomfortable, there is a **S**afety issue
  - **DESC** script - **D**escribe, **E**xpress, **S**uggest alternatives, **C**onsequences

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Handoff Scenario 1

JT is a 10 yo M with a history of ALL on induction chemotherapy who was admitted for febrile neutropenia. Patient was last seen in oncology clinic 6 days ago for chemotherapy. The patient was at baseline level of health until early this morning when he woke up with a fever. Per the patient's mom, his fever spiked up to 102F. He was also having night sweats. She brought him to the hospital right away and has not given him any medicines. He has had a dry cough and rhinorrhea for the past two days. His younger brother has recently gotten over a cold.

On admission, he was febrile to 101F, other vital signs were normal. On exam he had a cough and rhinorrhea; otherwise, exam was normal. He was started on empiric piperacillin/tazobactam. Blood cultures were drawn, a respiratory viral panel was sent, and CXR was obtained; results are not back. He is being handed off from the resident on the night team to the resident on the day team.

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Setting
- Noisy, chaotic?
- No interruptions, silent

Communication
- Not face-to-face; understanding not confirmed; no time for questions; responsibility for tasks unclear;
- Face-to-face; confirms understanding; elicits questions; assigns responsibility for tasks; concrete language

Content
- Information omitted or irrelevant; omits clinical condition; to dos lack plan/rationale
- Incl all essential info; describes clinical condition; to dos have plan/ rationale

Clinical judgment
- No recognition of sick patients; no anticipatory guidance
- Sick patients identified; anticipatory guidance provided with plan of action

Humanistic qualities/professionalism
- Hurried, inattentive; inappropriate
- Focused on task; appropriate comments

Setting
- Noisy, chaotic?
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- No interaction; no questioning; no read-back
- Face-to-face sign out; asks questions; read back of assigned tasks; concrete language

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Handoff Scenario 2

SB is a 65 yo F with a history of HTN and DM2 c/b diabetic retinopathy. She presents to ophthalmology clinic for an annual check-up. While the nurse is taking her admission vitals, she is found to have a BP of 199/100. The nurse informs you of her elevated pressure, so you decide to repeat the measurement manually. Your manual measurement shows a pressure of 208/104.

You ask the patient about her blood pressure and she states that she ran out of her blood pressure mediations last week and hasn't been able to go to pharmacy to refill them because she didn't have any transportation. She denies a headache, vision changes, chest pain, dyspnea, or nausea and states she feels normal. Upon further reflection, she mentions that she did have some numbness in her L arm and leg yesterday for a few seconds, but it went away on its own. You decide to send the patient to the ER and call the ER physician to let inform them about the patient arriving.

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Handoff Scenario 3

MS is a 72 yo F with a history of stable angina, HTN, DM2, and osteoarthritis. She is a retired school teacher. She lives alone with her dog Ginger and is very independent. She was shoveling snow on Monday morning after the big storm. While shoveling she developed a crushing sensation in her chest. She takes an aspirin every day at home and keeps nitroglycerin tabs in her pocket "just in case". MS took a nitroglycerin tab and an aspirin and drove herself to the hospital. She was admitted to the hospital on Monday afternoon with chest pain, rule out myocardial infarction.

She has been a patient on cardiology for 4 days now. She has had no chest pain since Monday and has been ruled out for a heart attack. She has a IV of . 9NS and expects to go home tomorrow morning. You go to visit MS in the afternoon. While you are talking to her, she states that she is having crushing chest pain and rates it a 9/10 on the pain scale. She is very anxious and diaphoretic and states she feels terrible. HR 120. BP 100/60. RR 21. SpO2 94%. You believe she has symptoms of ACS. You panic and are unsure of what to do and the nurse is not near the room, so you call for the Rapid Response Team.

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Post-Workshop Survey

Please complete the post-workshop survey at the following link

https://www.surveymonkey.com/r/handoffpost

Or scan this QR code