

HIT Design for Teamwork and Communication

Unit 5c: Tools to Enhance Communication and Care Coordination.

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Objective

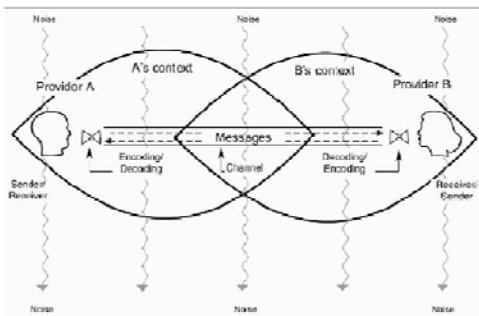
- Describe ways in which HIT design can enhance communication and care coordination.

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Communication



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Dayton & Henriksen, 2007
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Communication Failure

A major contributor to adverse events in health care!



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Hand-off Communication

<p>Joint Commission (TJC)</p> <ul style="list-style-type: none"> • Center for Transforming Healthcare • Seeks solutions to critical safety and quality problems through collaborative • Improving hand-off communication is one of its current priority projects. 	<p>World Health Organization</p> <ul style="list-style-type: none"> • Designated TJC and TJC International are the WHO Collaborating Center for Patient Safety Solutions • High 5 Project: focuses on finding 5 patient safety solutions over 5 years • Prevention of patient care hand-over errors
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Communication Tools

Whiteboards	Clipboards	Clinical Summaries
Automated Notifications	Hand-Off Notes	Discharge Summaries

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Communication Tools Whiteboards

- Names of patient care team members
- Clinical service of record
- Patient-specific risks or precautions
- Daily goal of care
- Family contact information
- Scheduled activities
- Anticipated discharge date

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Communication Tools Whiteboards

Responsibility	<ul style="list-style-type: none"> • Varies • Usually nursing staff
Primary barriers	<ul style="list-style-type: none"> • Absence of available whiteboard marker • Competing priorities
Facilitators	<ul style="list-style-type: none"> • Pre-designed with templates • Agreement on utility • Clear accountability

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Communication Tools Whiteboards

<p>Manual</p> <ul style="list-style-type: none"> • Single, visible display • Data manually entered by identified individuals. • Must be erased and replaced as data changes • Can use color as flags • Manually move patient from one location to another • Only accessible at a single location 	<p>Electronic</p> <ul style="list-style-type: none"> • Single, legible, highly visible, user-friendly display • Data extracted real-time from interfaced clinical information system • Able to key in variable data, such as patient assignments • Can use color & symbols as flags • Hands-free patient tracking • Accessible from anywhere
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Image: <http://www.whiteboardguide.com>

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Communication Tools "Clipboard" Tools

- Paper-based
- May be entirely manual or print-out from EHR
 - Single data source
 - Multiple data sources
- Print-outs may require whitening-out or crossing-out non-essential items
- Manual forms may entail bundling (organizing pieces of information and taping them together)
- Both can require annotating



Image: <http://www.bteacheration.com>

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Communication Tools Clinical Summary Tools

- Electronic; designed to be viewed on-line
- Facilitate communication, discussion, planning
 - Provider-Provider
 - Team-Team
 - Facility-Facility
- Pull clinical data into one view
 - Vital signs (high, low, most current, ranges)
 - Significant events, problems, allergies, medications
 - Daily goals, progress toward outcomes
 - Other patient-specific information

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Communication Tools Automated Notifications

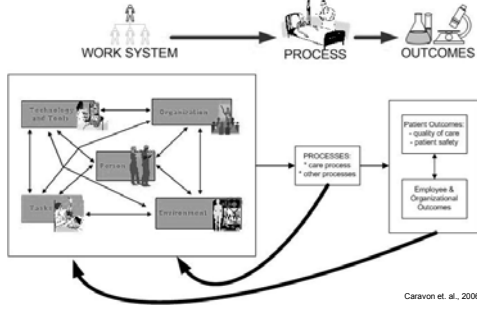
- Facilitate human-computer interaction
- **Examples:**
 - Electronic referral requests (criteria-based)
 - Electronic communication of abnormal diagnostic test results (alert notifications)
 - Prescription transmission (provider-to-pharmacy transmission) through provider order entry
- Researchers use multiple qualitative methods to analyze tasks
 - Are new error sources introduced by these tools?

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SEIPS Model of Work Systems and Patient Safety



Communication Tools Automatic Notification

- Maintenance of critical information in longitudinal record with automatic data transfer to latest encounter record
- Automatic flag and link sent to latest encounter record to indicate presence of patient information in longitudinal record

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Communication Tools Hand-Off Notes

- Provide structured content and process for all types of hand-offs
 - Shift-to-shift
 - Cross-coverage
 - Lunch/break coverage
- Can pull relevant data to a summary note, and add to-do section for immediate needs.

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Communication Tools Discharge Summaries

- Provide structured content & process for discharges
 - Electronic summaries can be automatically faxed to post-discharge providers/agencies
 - Discharge worksheets can be designed to populate patient discharge instructions in patient-friendly language, including the new Home Medication List

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Multi-disciplinary Rounds Patient-centric Information Tools

- Patient health records
- Variance tracking forms
- Progress Notes
- Flow sheets
- Bedside monitoring devices

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Multi-disciplinary Rounds Process-oriented Tools

- Rounding list
- Sign-out tools
- Daily goals form
- Discharge needs assessment tools

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Multi-disciplinary Rounds Decision-Support Tools

Electronic evidence resources

Clinical pathways

Graphic display of test results

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Multi-Disciplinary Rounds Evaluating Usefulness of HIT Tools

- Look at communication processes
 - Content, frequency
 - Time, noise & interruptions
- Assess effectiveness of communication
 - Situation awareness
 - Decisions, goals, needs
- Assess impact on care processes
 - Frequency of adverse events
 - Variations from clinical pathways
 - Identification of safety risks
 - Follow-through on discharge needs

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Summary

- Effective communication is a necessary pre-requisite to improving care coordination
- Highest risk of ineffective communication occurs during hand-off & transitions of care
- Health IT can both enhance & hinder effective communication & care coordination
- HIT professionals are instrumental in implementing information & communication technologies to support interdisciplinary care coordination

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