Clinical Handover

Do we need it?
What are the implications of not having it?

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Overview

• Prevalence and effects of poor handover in medicine

• Factors which predispose to poor handover

• Incentives for improving handover
Dimensions of clinical handover

• Clinical handover: inter-clinician communication occurring at care interfaces:
  – Change of shift or roster within caring team
  – Handoff from one disciplinary team (eg doctor team) to another (eg nurse team)
  – Transfer of patient care from one specialty team (eg medical) to another (eg medical to surgical, ICU/CCU to general ward, etc)
  – Transfer of patient care from one institution to another
  – Transfer of patient care from hospital setting to community setting

• Handover procedures adapted according to:
  – Specific interface
  – Needs of participants
    • Intern-intern, intern-reg, reg-reg, EN-EN, EN-NUM
Effects of discontinuity

- Decreased duty hours increases discontinuity
  - 15 handovers per patient for 5 day LOS
  - 300 handovers per month per intern
  - 40% increase in last 5 years
Effects of ineffective handover

Root Causes of Sentinel Events
(All categories; 1995-2004)

- Communication
- Orientation/training
- Patient assessment
- Staffing
- Availability of info
- Competency/credentialing
- Procedural compliance
- Environ. safety / security
- Leadership
- Continuum of care
- Care planning
- Organization culture

Percent of 2966 events

Sentinel Event Statistics  www.jcaho.org
Effects of ineffective handover

- Increased risk (3.5 fold) of preventable adverse events
  Petersen Ann Intern Med 1994

- Delays in diagnosis
  Pronovost J Crit Care 2002

- Decreased patient satisfaction
  Bark et al Qual Health Care 1994 Griffith JGIM 1997

- Increased LOS and tests
  Gottlieb Arch Intern Med 1991 Lofgren JGIM 1990

- Delays in test ordering and increased in-hospital complications
  Laine JAMA 1993
Communication failures in clinical handover

- **Missing or incorrect information**
  - Inaccurate initial diagnostic evaluation
    - Beach Acad Emerg Med 2003
  - Inadequate assessment of clinical condition
    - Anwari 2002, Priest et al 2000
  - Medication omissions/commissions
    - Kaboli Am J Man Care 2004
  - Code status
    - Lee et al JGIM 1996

- **Inconsistent or incorrect translation**
  - Petersen et al 1994, McKnight et al 2001
  - Incorrect problem framing
    - ‘Covering’ clinician rather than usual doctor or team
  - Professional disagreement
    - Exacerbated by no face-to-face interaction
UK Junior Doctors Initiative

A New Generation of Junior Doctors?
UK Junior Doctors Initiative

That’s not what I meant...

• The most important outcome of a handover process is the message the receiver ends up with
• Ensure you fully support handover processes within your organisations
• It is vital that YOU don’t end up saying, when its too late, “That’s not what I meant…”
Erroneous translation

29 errors detected during requested read-back of 822 lab results.

### Description of Errors

<table>
<thead>
<tr>
<th>Description of Error</th>
<th>No. (%) of Occurrences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incorrect name of patient</td>
<td>10 (34)</td>
</tr>
<tr>
<td>Incorrect test result</td>
<td>9 (31)</td>
</tr>
<tr>
<td>Incorrect specimen/test repeated</td>
<td>6 (21)</td>
</tr>
<tr>
<td>Recipient refused to repeat message</td>
<td>4 (14)</td>
</tr>
<tr>
<td>All</td>
<td>29 (100)</td>
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</tbody>
</table>

What predisposes to poor handover?

• Written or Verbal
  – Process not standardised in:
    • Aims and content
    • Time
    • Place
    • Participants
  – Failure to recognise/address facilitators/barriers to handover
  – No staff training in handover
  – No audit or review of handover
Anatomy of poor handover

- Failure to standardise
  - Templates, handover scripts

- Lack of updated information
  - Medications
  - Recent investigation results

- Interruptions
  - Protected time/space

- Limited access to computers/phone

- Missing participants
  - Multidisciplinary wherever possible

- Limited face-to-face verbal update
  - With interactive questioning
  - With read-back to ensure accuracy

- Lack of task prioritisation

- Limited verification of understanding

- Limited bedside handover

  **Positive**
  - Frame of reference (eyeballing patient)
  - Sense of ownership (introducing patient to handover doctor)

  **Negative**
  - Patient anxiety with jargon
  - Sensitive issues
  - Time consuming
  - Limited access to computers

- Over-emphasised privacy concerns

Patterson et al Int J Qual Health Care 2004
Lee et al JGIM 1996
Petersen et al Jt Comm J Qual Improv 1998
Van Eaton et al J Am Coll Surg 2005
ACSQHC July 2005
Incentives to better handover

• Every hospital department should have explicit handover procedures

• Standardised procedures nation-wide would be preferable

• Managerial support for:
  – Overtime required
  – Template production; computer access; information systems
  – Training resources
  National Patient Safety Education Framework 2005

• Clinician buy-in by emphasising:
  – Improved quality and safety of care
  – Educational, feedback and mentoring opportunities
  – Team building
  – Efficiency dividends
  – Flexibility according to special needs
Minimum dataset in clinical handover

Clinical background
- List of patients ranked according to urgency
- Current major issue(s)
- Brief HPI and listing of active problems by system
- Recent procedures or significant events
- Current concerns and baseline status (eg mental/behavioural status, cardiopulmonary, vital signs, key investigations – FBC, MBA, ECG, etc)

Tasks (what needs to be done, or might be anticipated)
- Specific actions using ‘if-then’ statements, including criteria mandating repeat review
- Warning of pending information (eg investigation results, consultant recommendations, review by another specialty team, etc)
- Contingency planning – what may go wrong, what to do about it, and who to call
- What has or has not worked before (eg response to frusemide, analgesia)

Context
- Code status (DNR; recent changes or family discussions)
- Difficult family or psychosocial situations, staff concerns re safety
Enriching communication

Communication Effectiveness vs. Richness of communication channel

- Paper
- Audiotape
- E-mail
- Videotape
- Phone call
- Videoconference
- Face-to-face
- Face-to-face whiteboard
- Face-to-face bedside

Interactive options

High

Low

Richness of communication channel

Communication Effectiveness

Effectiveness

Richness of communication channel
Verbal handover

Where should handover occur?
- Designated place free of excessive noise and with phone and computer access
- Minimise disruptions (urgent pages only)

When is the optimal time for handover?
- Designated time when both parties can be present and pay attention (requires adequate overlap of shifts/rotas)
- Sufficient time (15-30 mins) for interactive questions and bedside review if necessary

How should verbal communication be performed?
- Face-to-face allowing for questions
- Verbalise data in standardised format for each patient
- Read-back for all essential ‘to-do’ tasks
- Adjust length and depth of review according to baseline knowledge of parties involved
Written handover

Standardised template

- Identification data
  - Patient name, age, gender, UR no, ward/bed no.
  - Admission date, primary consultant

- Clinical minimum dataset

Reliable transmission

- Sent to, received, read, understood, and acted upon by incoming clinician

- Can be combined with verbal handover serving as a take-away summary
Sample clinical handover sheet

<table>
<thead>
<tr>
<th>Patient ID (label)</th>
<th>Ward/bed</th>
<th>Consultant</th>
<th>Diagnoses/problems</th>
<th>Ix</th>
<th>Rx</th>
<th>Plan</th>
</tr>
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- Could be computerised on PDAs
What can you do to improve handover?

• Get used to using the written MDS
  – Stop relying on memory

• Test to make sure the recipient understands the issues and has had any doubts, uncertainties clarified

• Present a contingency plan
  – If this happens do this and contact this person

• Pass it on
  – Make sure the next person in the chain is aware of the plan
Situation-specific handover guidelines

- Emergency medicine
  - Includes when registrars can leave their shift based on number of patients waiting in ED
    
    Prince Alfred Hospital Guidelines 2003
  
- Doctor-nurse handover
  - Interdisciplinary ward rounds
    
    Zwarenstein et al 2002

- Interhospital transfers
  - Reasons for transfer; structured referral summaries

- Discharge/outpatient care
  - Structured discharge summaries, clinic letters, ED letters
Situation-specific handover guidelines

*Nurse-nurse handover*

**Current problems**
- Handover occurs in office or station away from the patient.
- Inefficiency of nurses coming in one or two at a time to relay information to those on the next shift.
- Casual or agency nurses with no patient history knowledge, organisational familiarity.
- Time allocated for handover considered excessive.
- Patient information handed over not at the right level – seen as superfluous or insufficient.

**Strategies**
- Patient communication and input welcomed.
- Training in handover competencies and teamwork.
- Minimum data sets, checklists and IT content proformas.
- Data sheets with flags that trigger appropriate actions.
Situation-specific handover guidelines

Hospital-GP handover  ACSQHC 2005

- GP informed of admission and discharge (transfer)
- Flags inherent in admission handover to trigger telephone contact if deemed necessary and appropriate action during admission
- GP decides if further input of information required
- Electronic discharge/transfer summary to GP
- Audits of electronic discharge/transfer information
Situation-specific handover guidelines

Ward-OT handover

• Clarification of informed consent, explicit postoperative instructions and carer information

• Written checklists and instructions need to be a part of handover to and from ward/OT. Patient concerns and carer requirements need to be documented

• Training on improving communication handover practices is required

• Clinical audits of this transition needed
Role of computerised handover

• Web-based handover integrated with electronic medical records  

• Caution: IT solutions cannot substitute for a ‘successful communication act’

In an emergency room the replacement of a phone call for critical lab results with an electronic results-reporting system with no verbal communication resulted in 45% (1443/3228) of urgent lab results going unchecked

Ash et al JAMIA 2004
Kilpatrick, Holding BMJ 2001
Evaluating effectiveness of clinical handover

- No audit tool in literature
- Sentinel event analysis (pre/post)
- Observational studies
  - 360° practice review
  - Time-motion studies