Improving Transfer of Care Communication

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Primum Nil Nocere

“The very first requirement in a hospital is it that it should do the sick no harm”

Notes on Hospitals, 1863

Healthcare Hazards

Anesthesiology has successfully reduced anesthesia mortality rates to one death per 200,000–300,000

IOM Report (2000) – To Err is Human

“Anesthesiology has successfully reduced anesthesia mortality rates to one death per 200,000–300,000”


- 44,000–98,000 annual deaths occur as a result of errors
- Medical errors lead followed by surgical mistakes and complications
- More Americans die from medical errors than from breast cancer, AIDS, or car accidents
- 7% of hospital patients experience a serious medication error

Cost associated with medical errors is $8–29 billion annually

Cause of Death, USA - 2013
Leading Factors

Root Causes of Sentinel Events

(All categories: 1995-2005)

Transfer of Information

Joint Commission National Patient Safety Goal-2E

Implement a standardized approach to “hand-off” communications including an opportunity to ask and respond to questions.

Content:
- Include up to date information regarding:
  - Care
  - Treatment
  - Services
  - Condition
  - Recent or anticipated changes

Joint Commission National Patient Safety Goal-2E

Format:
- Limited interruptions
- Sufficient time allocated
- Process for verification of the information
- Repeat back
- Read back
- Receiver reviews relevant historical patient data including:
  - Previous care
  - Previous treatment
  - Previous services

Piper Alpha

'I conclude that the leak resulted from steps taken by night-shift maintenance. Unknown to them a pressure safety valve had been removed... the lack of awareness of the removal of the valve resulted in failures in the communication of information at shift handover earlier in the evening and failure in the operation of the permit to work system in connection with the work which had entailed its removal.'

High Reliability Organizations

- Nuclear Power
- NASA and Mission Control
- Air traffic control
- Carrier flight deck
- Dispatch services
High Reliability Organizations

- Trapping errors
- Identifying problems before they occur
- Extensive reporting systems
- Standards, Procedures & Checklists
- Clear shared goals

Consequences of Ineffective Handovers

- Wrong treatment
- Delay in Dx.
- Severe adverse events
- Patient complaints
- Increase H/C costs
- Length of stay

Complex System Failures

- 1995 Florida
- Capricious surgeon amputates contralateral leg rather than the one intended
- Surgeon disciplined by state licensing board

Complex System Failures

- 1995 Florida
- Capricious surgeon amputates contralateral leg rather than the one intended
- Surgeon disciplined by state licensing board
- Both legs were diseased
- Contralateral leg needed amputation as well
- Amputation of contralateral leg was proposed to patient
- Consent identified contralateral leg as target of amputation
- OR schedule identified contralateral leg as target of amputation
- Patient was anesthetized and contralateral leg was prepped and draped prior to surgeon’s entry into theatre

“Handover”

The transfer of professional responsibility and accountability for some or all aspects of care for a patient, or group of patients, to another person or professional group on a temporary or permanent basis

Estimated Numbers of Handovers
Types of Transitions

- On call responsibilities
- Hospital transfers (home, skilled nursing facility)
- Transitions in care (ED, radiology, physical therapy)
- Level of care (cross coverage)
- Nursing shift change/break relief
- Physician transferring care (OR to PACU/ICU)

Responsibility & Accountability

“Individuals and organisations have a shared responsibility to ensure that safe continuity of information and responsibility takes place”

“Information provided during handovers influences the delivery of care for the whole shift”

Barriers to Effective Communication

- Human fallibility
- Complex systems
- Limitations of learning & training
- Continuity gaps
- Negative impact of fatigue
- Time constraints
- Volume of information
- Confidentiality

Differences in Communication Styles

- Style of communication
- Hierarchy is an issue
- Past experience
- Level of empowerment
- Tone of voice
- Level of respect

Most Important Issues in Anesthesia Safety

IntraOp Anesthesia Handovers in AQI/NACOR

...representing 654,290 cases and 724,529 handovers over 4 years.
Intraoperative Anesthesia Handovers

**Table 4: Modelled Association Between Anesthesia Care Transition, Surgical Intensity and Postoperative Complications**

<table>
<thead>
<tr>
<th>Model</th>
<th>No Transition Rate</th>
<th>Full Model</th>
<th>Partial Model 2</th>
<th>Partial Model 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>OR</td>
<td>1.00 (Ref.)</td>
<td>1.00</td>
<td>1.00</td>
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<tr>
<td>Age</td>
<td>1.11 (1.06-1.17)</td>
<td>1.11 (1.06-1.17)</td>
<td>1.11 (1.06-1.17)</td>
<td>1.11 (1.06-1.17)</td>
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<tr>
<td>Airway</td>
<td>2.80 (1.98-3.91)</td>
<td>2.80 (1.98-3.91)</td>
<td>2.80 (1.98-3.91)</td>
<td>2.80 (1.98-3.91)</td>
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<tr>
<td>Wound classification</td>
<td>1.57 (1.49-1.66)</td>
<td>1.57 (1.49-1.66)</td>
<td>1.57 (1.49-1.66)</td>
<td>1.57 (1.49-1.66)</td>
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<tr>
<td>Estimated Blood Loss</td>
<td>1.19 (1.17-1.21)</td>
<td>1.19 (1.17-1.21)</td>
<td>1.19 (1.17-1.21)</td>
<td>1.19 (1.17-1.21)</td>
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<tr>
<td>Anesthesiologist hours</td>
<td>1.56 (1.28-1.91)</td>
<td>1.56 (1.28-1.91)</td>
<td>1.56 (1.28-1.91)</td>
<td>1.56 (1.28-1.91)</td>
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<tr>
<td>Confused after surgery</td>
<td>1.26 (1.16-1.36)</td>
<td>1.26 (1.16-1.36)</td>
<td>1.26 (1.16-1.36)</td>
<td>1.26 (1.16-1.36)</td>
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<tr>
<td>Wound infection</td>
<td>1.28 (1.15-1.42)</td>
<td>1.28 (1.15-1.42)</td>
<td>1.28 (1.15-1.42)</td>
<td>1.28 (1.15-1.42)</td>
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<tr>
<td>Unshielded side</td>
<td>28.20</td>
<td>28.20</td>
<td>28.20</td>
<td>28.20</td>
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<tr>
<td>Degree ofReadiness</td>
<td>4.50 (4.27-4.74)</td>
<td>4.50 (4.27-4.74)</td>
<td>4.50 (4.27-4.74)</td>
<td>4.50 (4.27-4.74)</td>
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<tr>
<td>Event 1 handled</td>
<td>7.02</td>
<td>7.02</td>
<td>7.02</td>
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<tr>
<td>Event 2 handled</td>
<td>7.02</td>
<td>7.02</td>
<td>7.02</td>
<td>7.02</td>
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</tbody>
</table>

*Adjusted OR = 1.44, [95% CI 1.09–1.91] for number of attendings*

IntraOp Handover

<table>
<thead>
<tr>
<th>Survey Question</th>
<th>Yes (%)</th>
<th>No (%)</th>
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</thead>
<tbody>
<tr>
<td>Does your Department have a hand over protocol?</td>
<td>50.5</td>
<td>49.1</td>
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<tr>
<td>Does this Departmental handover policy define the necessary elements that you believe should be included during hand overs?</td>
<td>11.2</td>
<td>88.8</td>
</tr>
<tr>
<td>Do you use a standardized hand over form when taking over a case from another provider?</td>
<td>14.3</td>
<td>85.7</td>
</tr>
<tr>
<td>Have you ever felt that you have not received enough patient hand over information when taking over a case?</td>
<td>15.2</td>
<td>84.8</td>
</tr>
</tbody>
</table>
Clinical Handover will vary depending on:

Size of the service, setting and circumstances, including:

- The situation of the handover:
  - during a shift change
  - when patients are transferred inter and intra hospital/service/unit
  - during patient admission, referral or discharge

- The method of the handover, such as:
  - face-to-face
  - via telephone
  - via written orders

- When aided by electronic handover tools

- The venue where handover takes place

Consistency in Communication

- Focuses on the patient and individual needs
- Reduces impact of complicating factors
- Increases the odds of consistent quality & service to patient
- Requires caregivers to become more intentional and disciplined in their interactions
- Standardized format allows all parties to have common expectations:
  - What is going to be communicated
  - How the communication is structured
  - Required elements

How to Communicate

- Being organized in thought and communication
- Being competent technically and socially
- Get the person's attention
- Make eye contact, face the person
- Use the person's name
- Express concern
- Re-assert as necessary
- Decision reached
- Escalate if necessary
- Owned by the entire team – not just a “subordinate” skill set
- It must be valued by the receiver to be successful
- Use a communication technique
Hand off: “5-Ps”

Use the 5 Ps:
- Patient
- Plan
- Purpose
- Problems
- Precautions

I - SBAR

I – Introduction
- Name and function of caregivers participating
- Patient name, dob/age, armband

S - Situation (the current issue)
- Type of procedure, site, indication
- Allergies, current medications
- Special precautions

B - Background (brief, related to the point)
- Anesthetic, paralysis, airway
- Pertinent medical history
- Medications administered
- Estimated blood loss, UOP, Fluids in

A - Assessment (what you found/think)
- Current condition
- Lines, Infusions
- Blood products, critical lab values

R – Recommendation/request (what you want next)
- Blood products available, stat orders needed
- Pain/PONV management plan
- Destination
- Family status
- Any further questions

I PASS THE BATON

I - Introduction:
- Introduce yourself

P - Patient:
- Name: identifiers, age, sex location

A - Assessment:
- “The problem” procedure etc. so far in the process

S - Situation:
- Current status/Circumstances, recent changes

S - Safety concerns:
- Critical lab values/reports; threats, pitfalls and alerts

B - Background:
- Co-morbidities, previous episodes, current meds, family

A - Actions:
- What are the actions to be taken and brief rational

T - Timing:
- Level of urgency, explicit timing, prioritization of actions

O - Ownership:
- Who is responsible (person/team) incl. patient/family

N - Next:
- What happens next? Anticipated changes? Contingencies

Handover Checklists

[Image of handover checklist]

References: "Handover Checklists"
ASPIRE - IntraOp Handover

<table>
<thead>
<tr>
<th>Category</th>
<th>Yes</th>
<th>No</th>
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<tbody>
<tr>
<td>Name/ID</td>
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<tr>
<td>Patient/Team members</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Interventions</td>
<td></td>
<td></td>
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<td>Allergies</td>
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<td>Interventions</td>
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<td></td>
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<tr>
<td>Medications</td>
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<td></td>
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</tbody>
</table>

Type of anesthesia
- General/Regional
- Spinal

Emergence/post op plan
- Type
- Medications

Medications
- Preoperative
- Sedation medications
- Muscle relaxants

Pain Management Plan
- Preoperative
- Postoperative

Identify primary anesthesia concern for this patient.

ASPIRE - PACU Handoff

<table>
<thead>
<tr>
<th>Background</th>
<th>Yes</th>
<th>No</th>
<th>NA</th>
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<tbody>
<tr>
<td>Introduction</td>
<td></td>
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<tr>
<td>Patient Identification</td>
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<tr>
<td>Allergies</td>
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<tr>
<td>Medications</td>
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</tbody>
</table>

Preoperative Medications
- Type
- Amount

Muscle Relaxants
- Time
- Amount

PONV Risk & Meds Administered
- Type
- Amount

Fluids
- Total Intraoperative

Identify primary anesthesia concern for this patient.

Barriers to Implementation

- Ineffective methods: unstructured, one-way
- Time commitment and process changes required
- Extreme variability and uniqueness of handoffs and transitions
- Lack of focused research on healthcare handoffs
Culture of Safety

- Systems Thinking
  NOT individual blame

- Process Thinking
  NOT just skill, technique or experience

- Team Thinking
  NOT about having the “best” people

- Continuous Improvement
  NOT accepting “that’s just how it is”

Conclusions

- Transitions in care are a prime target for improved patient safety efforts
- Sentinel event data creates urgency for change
- Strategies developed in high reliability organizations can be applied to health care
- The Joint Commission’s National Patient Safety Goals have accelerated the pace of change in applying human factor science to patient care handoffs

Thank you very much!
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