

Identifying the Impact of Failure in the Information and Knowledge Transfer Process

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Why?

Harm can happen due to ineffective evidence and knowledge transfer (EKT). Found as a factor in:

- 2001 death of a healthy volunteer¹
- Death of an infant² – Denver Nurses

Gaps in the knowledge transfer process are important to identify

- What are they?
- What is their impact?
- How can we improve and increase awareness to be more sensitive to gaps and how they can undermine safe work.

What do we mean by EKT?

The continuum of determining what peer-reviewed science and tacit knowledge are needed, and reliably facilitating information into action and decision making.

What sorts of EKT failures can impact care?:

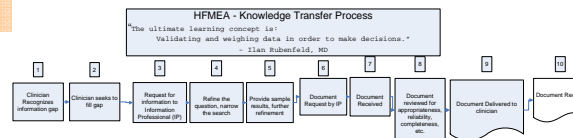
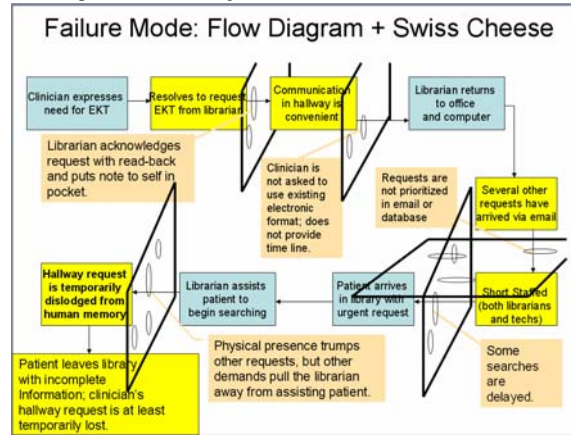
- Confirmation bias
- Researcher overconfidence of research skills
- Inaccessibility of librarians
- Bad search methodology
- Researcher didn't know what he didn't know
- Researcher was pressured, tired, interrupted
- Missed cues in the literature reviews
- No double-check of results
- Wasn't aware of the library's search services
- Librarian unhelpful in the past
- Lack of full text availability
- Old drug books accessible
- Relying on uninformed "expert"
- Patient didn't ask about the research prior to signing on

¹ McLellan F. 1966 and all that-when is a literature search done? Lancet. 2001;358:646.

² Smetzer JL, Cohen MR. Lessons from the Denver medication error/criminal negligence case: look beyond blaming individuals. Hosp Pharm. 1998;33:640-657.

How?

Identify the holes in the EKT Swiss cheese through failure analysis:



Getting started:

1. Start conversations with clinicians and librarians.
2. Observe and document existing EKT process (the way it really happens - not some ideal process).
3. Use your observations and documentation to identify potential failure modes (places where things can go wrong and the results that could ensue).
4. Work with your patient safety (or quality) manager.

Failure Mode	Hazard score = 0; Criticality = no; CMI = no; Detectability = yes; Stop
1. Identified resource requires ordering (time/cost)	Hazard score = 0; Criticality = no; CMI = no; Detectability = yes; Stop
2. Getting the correct information identified may take several attempts and several asks to refine question may not be aware of heuristic nature of search-Related queries; CMI = no; detectability= no (?)	Includes in HFMEA.
3. Times required to refine the search question with the librarian may discourage clinician	Hazard score = 0; CMI = no; detectability= no (?)
4. Delay in release of electronic form of document (1 year, more or less) makes full text unavailable	Hazard score = 0; Criticality = no; CMI = no; Detectability = yes; Stop
5. If full text not available, clinician may base decision on information in abstract title or description or literature)	Hazard score = 0; CMI = no; Detectable = no; Includes in HFMEA.
6. Difference between information provided by library and results and medical reference librarian	Hazard score = 0; CMI = 1; Detectable; probably not (see CMI) Includes in HFMEA.
7. Medical reference librarian not available 24/7	Hazard score = 0; CMI = 1; Detectable; probably not (see CMI) Includes in HFMEA.
8. Confirmation bias causes clinician to dismiss findings	Hazard score = 0; Control Measure: No; Detectable: Likely; Includes in HFMEA.

What?

Do a prospective failure analysis

- Its aim is prevention of harm to patients
- It doesn't require previous bad experience or close call
- It makes the system more robust and reliable
- It aims to build fault tolerance into systems

Seeking Collaborative Solutions

What holes in the "knowledge transfer" process have you seen?

What does the team look like?

- Librarians
- Physicians
- Residents
- Information technicians
- Nurses
- Patients
- Administrators
- Patient Safety Managers

Plans for our project:

1. Pilot within the VA healthcare system
2. Conduct HFMEAs at multiple locations - on multiple subprocesses.
3. Share results VA-wide to provide lessons learned across the entire EKT process
4. Publish identified failure modes to encourage other systems to contribute to resolving patient safety issues related to EKT.

Progress Report:

Conducted training session for librarians; collected anecdotal responses from clinicians and librarians; consulted with experts on failure modes and process.