A triangulation research approach to understand, evaluate and improve clinical handover: a practical guide

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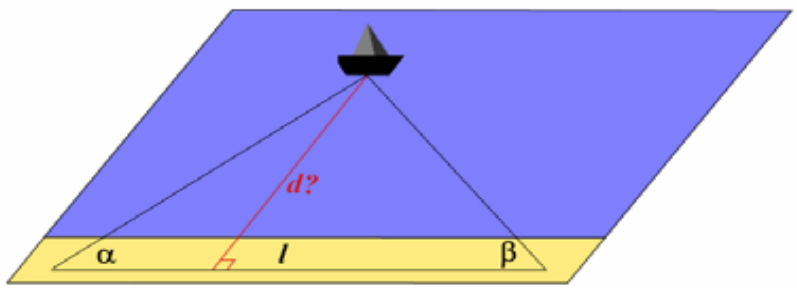

Background

- Our existing approach to understanding and improving handover integrates clinical and information systems expertise with qualitative field techniques and user-centred education and training in an iterative feedback loop to support continuous improvement.

- This work, initially started in 2004, has led to the development of significant multi-disciplinary expertise on clinical, technical and socio-organisational elements that need to be addressed to improve clinical handover.

- These clinical handover initiatives have produced four main outputs
  - Clinical Handover Processes
  - Electronic Clinical Handover support tool: minimal data set
  - Training for Clinical Handovers
  - Observation, monitoring & evaluation tools to improve clinical handovers

This Presentation aims:

To provide a practical guide to thinking about the *research and practice* of understanding and improving clinical handover:

A simplistic solution

Human and Information factors contribute to errors

- Reduce working hours of medical practitioners
- Implement information communication technologies to improve clinical handovers

Problem

- Medical handover is a complex dynamic aspect of clinical practice
- Efficiency and effectiveness of medical handover is dependent on more than one variable → transferring of information
- H/over serves many functions – Don't throw baby out with the bath water !!
- Role of other factors needs to be addressed including critically how in different contexts these factors interact with one another

Clinical Handover: A Case for Flexible Standardisation

There are a range of competing considerations:

- Standardised care versus flexibility /adaptability
- Local circumstances versus national consistency
- Methods versus contexts
- Research/Administration versus front-line practice

So how did we approach these problems…

Some Concepts: Systems Thinking in the 'Wild'

To *design* better health services, …[it helps] …to understand *systems. With* Complex systems, simple fixes always have unexpected consequences….

After all what is a health system but interactions amongst People, Tools & Practices/Interventions.

1. Since people are involved we need to understand cognitive, organisational & social sciences;

2. Since health professionals are involved we need to understand medical sciences, medical practices and clinical autonomy (Turner, 2007)

3. Since tools are involved, we need to understand technology and what it can offer (Coiera, 2007)

Need to development approaches and systems based on the reality of things as they are, not as we theorise them to be….

Research and Practice of Handover

- You can't write all that you say
- You can't say all that you know
- You often don't know what you know – until you need to

Branko Cesnik

Need to be aware of differences between:

- What people say they do
- What they think they do
- What they Actually do

Christian Nøhr, 2007

Research / Administration

- Numbers please
- Need to have a research component
- Control, i.e. double blinded control trial
- Guidelines (from key notes)
- Someone will build it in the future

Front-line workers

- Numbers do not make sense
- We need to change it now
- Piecemeal, local, not transferable

Get the two together !

- Research that engages frontline workers
- Needs to understand socio-cultural context ➔ technology integration
- Many competing needs ➔ local champions

Three Phases – *Incremental, overlapping, iterative*

- Socio-cultural understanding
- Education and engagement
- Generalisability / Sustainability / Transferability

Summary Table: Triangulation Approach

METHOD	FOCUS	OUTPUT	THEORISTS // PRACTITIONERS
Observations in and between handover Semi-structured **Interviews** Handover **Notes Analysis**	Human, Socio-cultural, organisational, **information content**, environmental, technical factors & ***Interactions***	H/over is more than just the transfer of information, essential to maintain various functions, **interplay of factors is critical** in any change incl. IT systems design & implementation	Delivers value in enhancing conceptual understanding & measurement tools for interventions + IT systems designs & implementation.
Participatory JMO Workshops Case-based **Scenarios** **Reflective Learning** Techniques	What we do and how to improve it, user engagement/participation, team building, attitudes, insights, experiences	**Flexible standardisation**, leadership stimulation, succession planning, sustainability, **SOP, minimal data sets, IT tools**	Delivers value to front-line staff and H/over leaders in terms of practice focus Enhances research base as well
Evaluation through **iterative feedback** incl. Questionnaires Education and Training incl. self-directed and interactive User-led Systems Innovation	Tools for learning, monitoring, mentoring 'change champions' Revisions	Improving reliability in practice, systems improvement, **failure analysis, transferability**, SOP training	Builds generalisability and opportunity 4 transferability Opportunity for engagement with other stakeholders – Health Managers, Patients et al.

On-going Work - ACSQHC

Our aim is to:

- Enhance and extend the current RHH clinical handover initiative to medical and nursing shift-to-shift handover in three medical areas: General Surgery, Emergency Medicine and General Medicine.

- Deliver a robust and replicable comprehensive clinical handover solution incorporating an enhanced standardised operating protocol addressing medical and nursing shift-to-shift handover.