Triple Assessment

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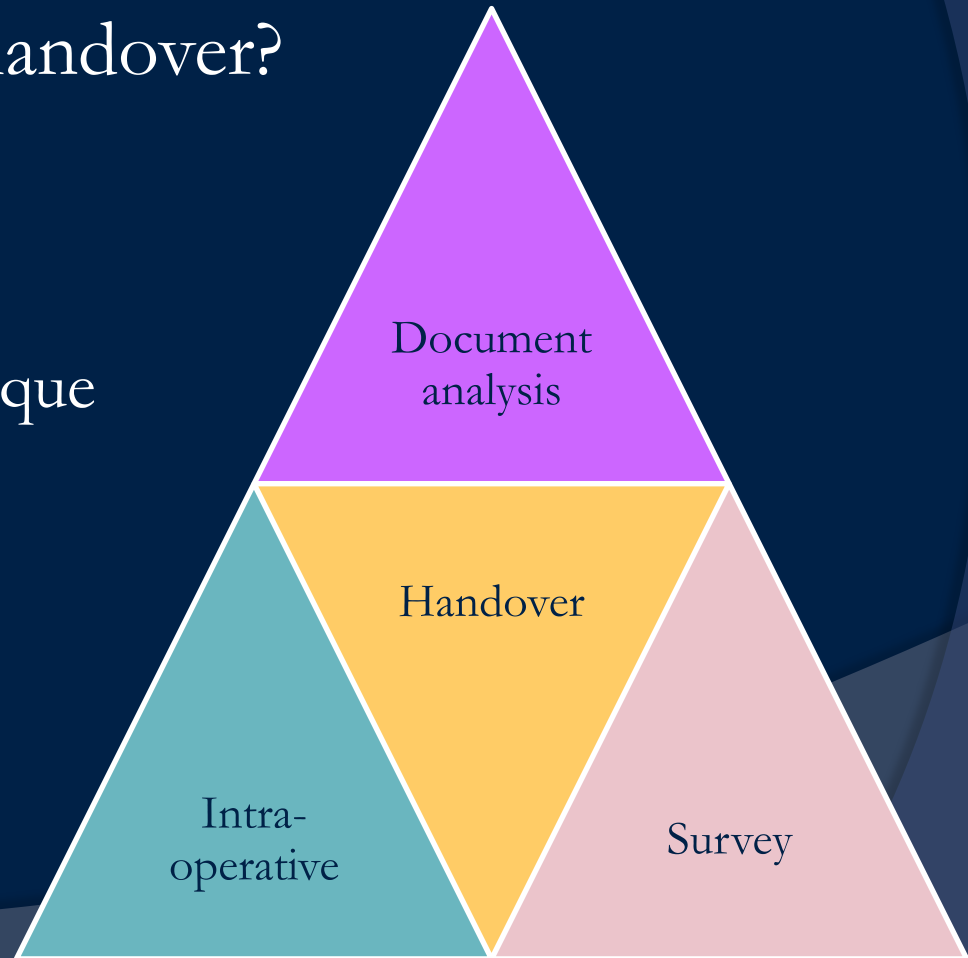
Background

- MD project - investigating the role of interventions to improve the reliability of the post-operative handover

- Triple assessment was developed to aid post-operative handover assessment and intervention evaluation

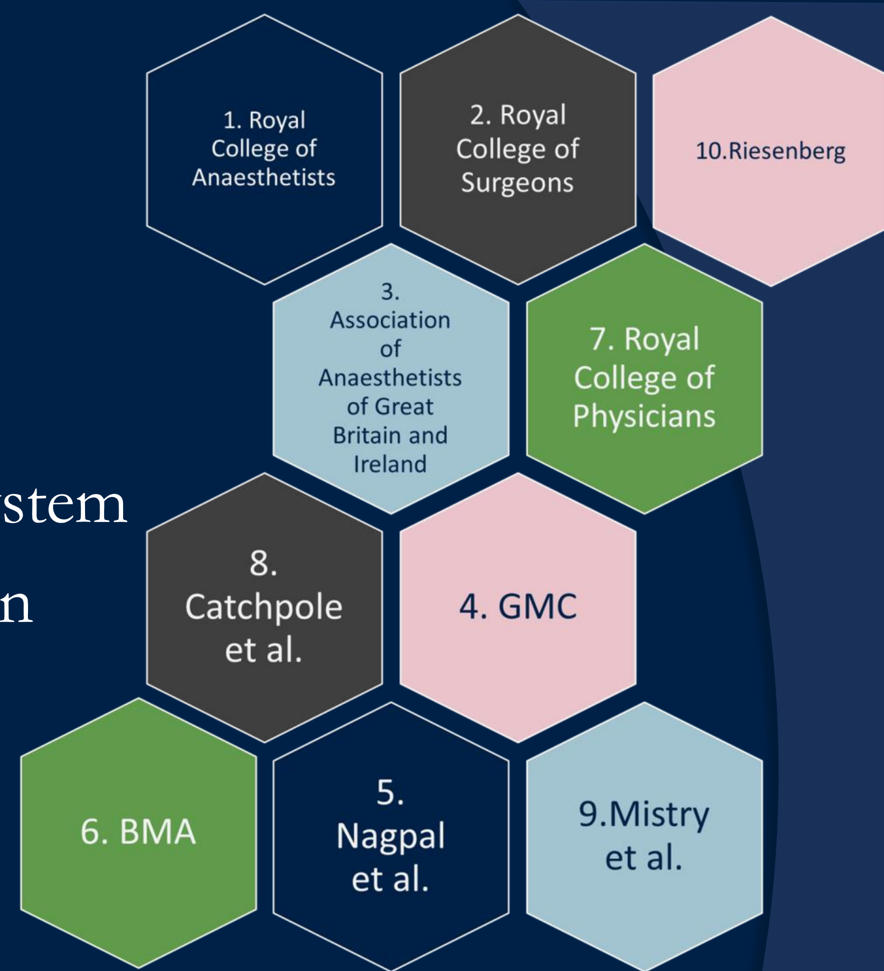
Triple assessment development

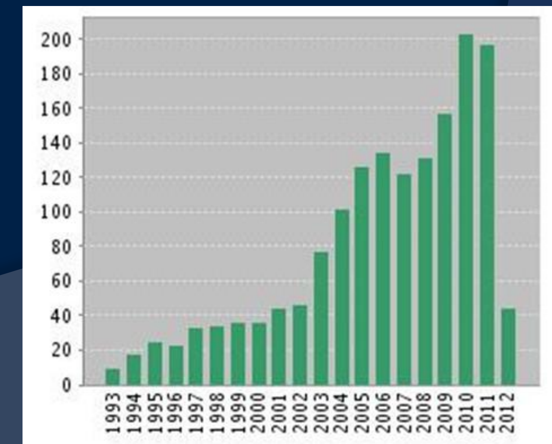
- What is the most information one researcher can gather from a handover?
- Triple assessment
  - Triangulation technique



Handover

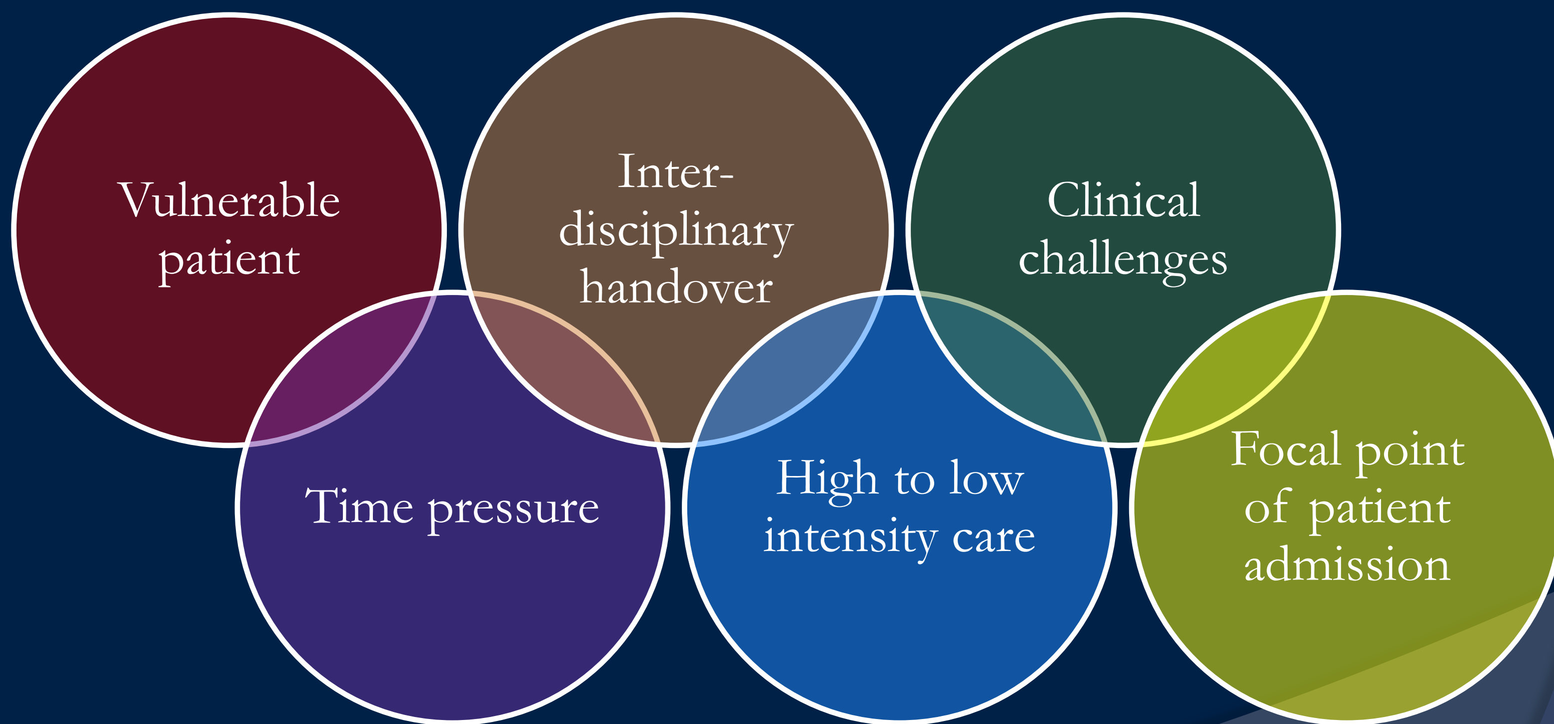
- Is complex
  - Accepted weak point in a system
  - Difficult to prove causality in patient outcome
- Of interest to researchers
  - Many guidelines
  - Increasing number of publications





Handover

- Post-operative handover especially interesting



Handover functions

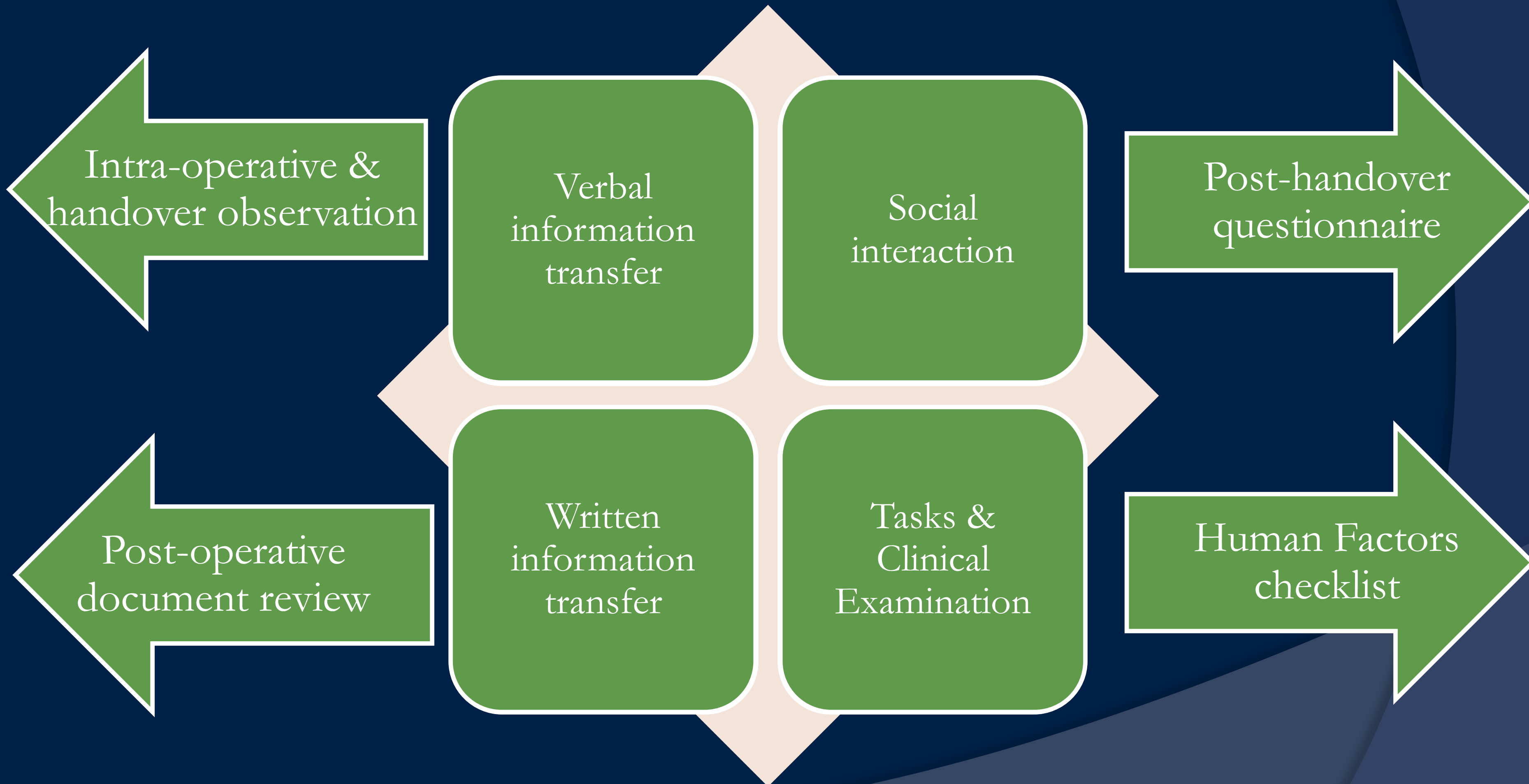
Primary function

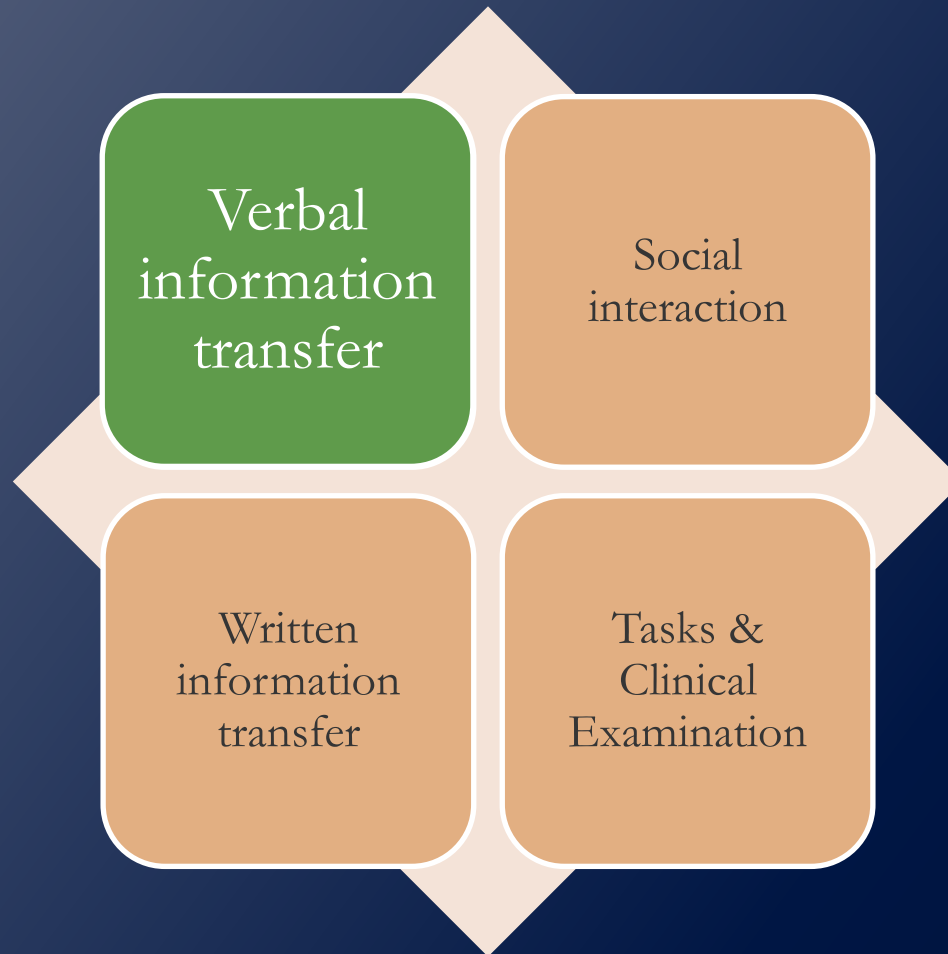
- Information transfer
  - verbal
  - written

Secondary function

- social interaction
- tasks

How can we ‘record’ a handover?




Verbal information transfer
Social interaction
Written information transfer
Tasks & Clinical Examination

Verbal information transfer

- Nagpal et al. (An Evaluation of Information Transfer)
  - Pre-op note analysis & post-op handover
- Opportunities afforded by S3 study
  - Intra-operative observations & post-operative handover

Nagpal K, Vats A, Ahmed K, Vincent C, Moorthy K. An Evaluation of Information Transfer Through the Continuum of Surgical Care A Feasibility Study. Annals of Surgery. 2010 Aug;252(2):402-7.

Intra-operative data collection

- Combination of questionnaire and observations
  - To build a picture of 'truth'….

- Intra-operative observation
  - What can be observed?
  - What can be heard?
  - What can be read?
- Intra-operative questionnaire

Verbal information transfer

Social interaction

Written information transfer

Tasks & Clinical Examination

Human factors checklist

- Lyons et al. ward round observations
  - Recognition of the 'passive' players in handover (setting up to fail?)
- Different environment
  - Recovery rather than ward round
  - Some categories not required

APPENDIX A
HUMAN FACTORS CHECKLIST

Who initiates/lead the handover?
Use of handover notes/protocol
Use of readback with handover?
Delay in providing information
Use of patient notes
View *x* rays
Initiate communication with current patient
Current patient interrupts
Other patient interrupts
Patient relative/carer interrupts
Patient assessed during handover
Active intervention on patient
Doors opening/closing
Other staff walk through the round
Other staff interrupt the round
Background conversation outside the round
Background conversation between people on the round
Desk phone
Mobile phone
Bleep
Alarm
Suction noise
Computer noise
Fire alarm
Power cut
Teaching during round
Social discussion during round
TV noise
Coffee machine noise
Ice maker noise
Washing (noise from sink)

Lyons MN, Standley TD, Gupta AK. Quality improvement of doctors' shift-change handover in neuro-critical care. Qual Saf Health Care. 2010 Dec;19(6):e62.

Human factors checklist

- Local adaption due to differing environment
  - Split interruptions in to avoidable
    - ‘keys?’, bleeps etc.
  - Un-avoidable
    - Current or other patients
    - Relatives

- Method
  - Collection during handover observation, later categorisation

Verbal information transfer

Social interaction

Written information transfer

Tasks & Clinical Examination

Participant survey

- Frequently utilised methodology in handover
- Questionnaire of end user experience
- Contacted Dr Brian Joy
  - Kindly sent through questionnaire
  - How does this link to omissions/inaccuracies/environmental considerations?

Joy BF, Elliott E, Hardy C, Sullivan C, Backer CL, Kane JM. Standardized multidisciplinary protocol improves handover of cardiac surgery patients to the intensive care unit*. Pediatric Critical Care Medicine. 2011;12(3):304-8 10.1097/PCC.0b013e3181fe25a1.

CV Handoff Survey

The investigators studying patient handoffs from the operating room to the PICU appreciate your feedback on the handoff process that you just participated in. This OPTIONAL brief survey will help us assess and improve the quality of our handoff process. All surveys are anonymous and the results will not be analyzed until all study surveys have been completed.

Date of Handoff:________________

POSITION: Nurse Physician (please circle one)

Please respond to the following statements using the following scale.
(1 – Strongly disagree, 2 – disagree, 3 – neither agree nor disagree, 4 – agree, 5 – strongly agree)

Statement					
1. The handoff from the operating room went smoothly.	1	2	3	4	5
2. Everyone involved worked well together as a team.	1	2	3	4	5
3. I received all the information necessary to care for the patient.	1	2	3	4	5
4. I understood what was required of me for the handoff.	1	2	3	4	5
5. There were aspects of this handoff that had the potential to compromise the care or safety of the patient.	1	2	3	4	5
6. There were aspects of this handoff that DID compromise the care or safety of the patient.	1	2	3	4	5

Additional comments:

Joy BF, Elliott E, Hardy C, Sullivan C, Backer CL, Kane JM. Standardized multidisciplinary protocol improves handover of cardiac surgery patients to the intensive care unit*. Pediatric Critical Care Medicine. 2011;12(3):304-8 10.1097/PCC.0b013e3181fe25a1.

Participant survey

- Methodology
  - Paper survey
  - Handed to anaesthetist and recovery nurse

- Consideration of the link between 'user experience' and
  - Omissions
  - Inaccuracies
  - Environmental considerations?

Verbal information transfer

Social interaction

Written information transfer

Tasks & Clinical Examination

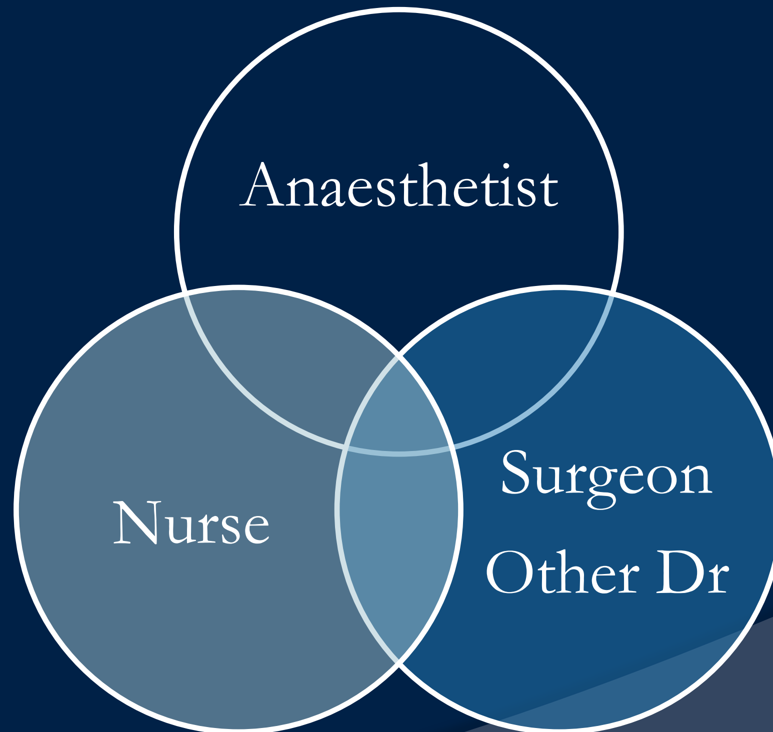
Written information transfer

- Information referred to once handover has finished
  - Even in an ideal handover documentation is referred to
    - Refresh memory
    - Elicit more detail
- Layer of safety within healthcare

Documentation analysis

- 4 key documents
  - Drug chart
    - pre and intra-operative content
  - Anaesthetic chart
    - Past medical history, intra-operative events
  - Operation note
  - Perioperative care plan
    - Intra-operative events

Who 'owns' these documents



Document data collection

- Data collection sheet again based on RCAn
  - Omissions
  - Inaccuracies
- Permit intra/inter document analysis

Colvin JR. Raising the standard : a compendium of audit recipes for continuous quality improvement in anaesthesia. 2nd ed. / edited by John R. Colvin. ed. London: Royal College of Anaesthetists; 2006.

Preliminary results

As the results are yet to be published, they have not been included in this online presentation

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