



## Handover Checklists Improve Quantity & Quality of Information



A standardised checklist improved the quantity and quality of information shared at handover from the operating room to the ICU, in a randomised controlled trial of 121 handovers, published in the [Journal of Critical Care](#), the official journal of the World Federation of Societies of Intensive Care Medicine.

Cornelie Salzwedel, MD, and colleagues from the [Centre of Anesthesiology and Critical Care, University Hospital Hamburg-Eppendorf](#) compared handover without a checklist to handover with a checklist of 13 categories of patient information. The researchers analysed recordings of the anaesthesiological handover by comparing them with a rating sheet for each patient, which included items that “must” be handed over with items that “should” be handed over, i.e. additional useful information. This rating sheet contained 54 handover items to meet the different concerns of each handover. The researchers counted how many “must” items and how many “should” items were included in each handover. The important information included at handover increased by 13% with the use of a checklist for patient handover (75% in the control group compared with 87.1% in the study group). Checklist use did not lead to increased handover time.

See Also: [Assessing and Improving Communication and Patient Handovers in the ICU](#) -

The authors note that overall there was poor compliance with the checklist. However, this may be due to different perceptions of doctors of what information is important. “Every handover and also the patient assessment sheet filled out by the attending remained a subjective evaluation”, they acknowledge.

The authors recommend that checklists be implemented in all perioperative settings to improve patient safety. Furthermore, intelligent checklists could be compiled from electronic patient records by collating important clinical information from the patient’s health record or hospital record and filtering the important and relevant information for a successful and complete handover.

### Checklist for patient handover

1. Patient identification (Name, Age)
2. Underlying disease and surgical intervention
3. Pre-existing medical conditions, allergies and medication
4. Anaesthesia induction
5. Intraoperative course (surgical + anaesthesiological, e.g. estimated blood loss)
6. Cardiovascular system (e.g. catecholamines, central venous oxygen saturation, lactate)
7. Fluids + blood products
8. Respiratory system (e.g. Oxygen saturation, ventilation, last blood gas analysis)

9. Gastrointestinal system
10. Kidney (e.g. output)
11. Neurology (e.g. mental status preoperatively)
12. Postoperative instructions (e.g. drains, analgesia, extubation, x-ray)
13. Other

#### **Standardised System for Neurosurgical Handover: Electronic Plus Face-to-Face**

A standardised handoff system developed by residents in an academic neurosurgery department to communicate key perioperative data via electronic documentation and in-person discussion with other healthcare professionals to reinforce the handover information is described in an article in [Cureus](#) by Harjus S Birk and colleagues from the Department of Neurological Surgery at the University of California San Francisco.

The electronic documentation was based on a note template inserted into patient transfer-of-care 'Navigators' that the system automatically highlights based on an algorithm that tracks patient movement throughout the UCSF surgical realm. The note contained the following fields: surgeon, date of operation, preoperative diagnosis code, procedure, implants, and specimens. Additional prompts request information from the user on postoperative diagnosis, the exact procedure performed, pertinent intraoperative findings, fluids, estimated blood loss, wound classification, incisional closure type, drains and expected disposition and plan. Neurosurgical residents had 30 minutes to complete the notes after the patient had transferred to the postoperative setting. Residents were also required to perform a face-to-face handoff with the assigned postoperative registered nurse (RN) in order to repeat the elements of the brief postoperative note.

By the end of the study period, compliance reached 100%. The authors write that they attribute this to "heightened buy-in by the residents and nurses to participate in this protocol because of its ability to lead to smoother transitions of care." Residents and nurses who answered a survey about the new system stated that handover elements most important to them were the exact procedure performed, fluids administered and estimated blood loss.

Sources: [Journal of Critical Care](#); [Cureus](#)

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