**Electronic supplementary material**

**Development of standardized data collection form**

We conducted semi-structured interviews with 22 intensivists from the same institution, to identify the most common ICU-related problems (e.g.: respiratory failure), diagnosis (e.g.: pulmonary edema) and goals (e.g.: negative fluid balance).

During the semi-structured interviews we asked intensivists which items were important to be discussed during handover for the night shift. After each item was described the intensivists were prompted to assign the item to a specific domain such as diagnosis, goal for the night or an anticipated problem. During the interview items were assigned to a system by the interviewer (for example the diagnosis pulmonary edema would be noted within respiratory system), and, if not all systems were mentioned, the interviewer would prompt the intensivist at the end of the interview. We continued interviews until saturation of themes in each domain (diagnosis, goal or anticipation).

From this initial list, two authors (MD and ACKBA) rechecked the assignment of the items into the different systems and domains, discussed the findings and created a data collection form that was then presented to 5 clinicians from a different institution for face and content validity. Diagnoses were clustered within 5 “Problems” (Changes in level of consciousness, Respiratory Failure, Shock, Renal Failure and Infection) and goals were clustered within 3 categories, targets, actions and controls. Based on this feedback, we created the **final data collection form** (Supplemental Digital Content 2, http://links.lww.com/CCM/D830).