Information Needs of Charge Nurses and Intensivists in Intensive Care

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Abstract

In intensive care units, the shift leaders spend substantial amount of time in selecting and combining different kind of data to support their decision making during the coordination of patient care. Most of information systems for intensive care are focused on individual patients and provide detailed information only related to direct patient care. The systems should be more process-oriented in order to serve their multiprofessional users. Based on our previous study, we developed a questionnaire to define process-oriented information needs of intensive care charge nurses and intensivists for immediate decisions (ad hoc). In this paper, we describe the administration of our survey, report preliminary results of our study and evaluate the necessity of information for ad hoc decisions of shift leaders at intensive care.

Keywords:

Charge nurse, Coordination, Critical care, Decision making, Intensive care

Methods

We developed an on-line Webropol® -questionnaire to assess information needs of intensive care unit (ICU) charge nurses and intensivists, when they manage daily activities of their units and make ad hoc decisions. The questionnaire was based on our previous observation study that we conducted with the think-aloud method. The questionnaire consisted of two parts: a) demographics and background questions concerning ICU characteristics and b) 126 statements concerning information needs related to ICU care activities. For each statement, we used a rating scale 0-10 (completely unnecessary-absolutely necessary) to assess the necessity of the information stressed. We divided activities into six categories linked to the ICU care process[1]. Our study was conducted in 2009 between May-June in a 12-bed ICU and all charge nurses (n = 20) and intensivists (n = 29) were recruited. We performed the statistical analysis with SAS 9.1. For each statement, we calculated a mean value and considered those with the mean of at least 7 as necessary for ad hoc decisions. In the analysis, we focused on differences and similarities in information needs of charge nurses and intensivists.

1 Categories: Patient admission; Organization and management of work; Allocation of staff resources; Special treatments; Allocation of material resources; and Patient discharge.

Results

A total of 21 (43 %) people responded to the questionnaire. The response rates were 75 % (16) charge nurses and 17 % (5) intensivists. Charge nurses assessed altogether 29 out of 126 statements concerning information needs as highly necessary. The most necessary information for their ad hoc decisions concerned the category of Allocation of staff resources including problems related to the staff management, number of nursing staff in different working situations, skill levels and implementation of care activities. Information needs of intensivists differed from charge nurses. Intensivists evaluated altogether 13 out of 126 statements concerning information needs as very necessary for ad hoc decisions. The category of Organization and management of work was strongly emphasized and it included things closely connected to patient admission and discharge decisions as well as criteria for intensive care. When considering the shared information needs altogether 36 out of 126 statements were assessed as necessary. The most crucial shared information needs for ad hoc decisions were related to the Patient admission and Organization and management of work including, e.g., patient's need for isolation or vacant beds at the unit.

Conclusion

The study revealed that both ICU charge nurses and intensivists identified several information needs that are crucial for ad hoc decision making but are not currently available or combinable in administrative information systems. For the shift leaders, who are coordinating patient care, an integrated overview and summarization of information is highly needed. Taking these inter-professional, real-life needs into account is important, and via iteration of information-need assessment and system-design, we can create a new generation of systems, where evolving user-needs are incorporated.

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