

Homecare Nurses' Decision-Making Information Needs During Admission



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THE re-hospitalization rate of homecare patients within 60 days of hospital discharge is 30%; enhanced care planning and allocation of clinical care services based on better information may reduce this rate. Understanding information needs and enhancing clinical decision-making during the admission care-planning process may assist homecare nurses to overcome the challenges of timely and appropriate allocation of clinical resources during the admission process and to reduce adverse events and hospital readmissions from homecare. While health information technology (HIT) has the potential to support the admission process, thereby improving quality of care while minimizing risk and harm to patients, contextual factors (e.g., workflow integration, HIT usability) present challenges to HIT implementation and adoption. To better understand the admitting nurse's information needs, we need to understand how clinical work is and could be done. Human factors methods aid in such understanding including how context affects both work processes and information needs. The study objective was to assess the feasibility of the use of selected human factors methods to examine care plan decision making during the homecare admission process.

Methods: During the first admission visits for two different patients, we observed one nurse who supported a homecare agency serving marginalized low income patients. Data collection methods included: observation of the nurse admitting a patient, observation of the nurse completing the admission documentation, and structured interview. In the home, types of data collected included: 1) nurse/patient conversations; 2) nurse access of paper artifacts; and 3) notes taken by the nurse. At the agency, the nurse was also audio recorded when not calling other healthcare providers. We copied de-identified physical documentation and reviewed the nurse's electronic product. Following documentation completion, we audio recorded a structured knowledge elicitation session coupled with clarifying questions. In addition, we interviewed agency experts to clarify issues related to HIT usage and nurse procedures. A researcher transcribed the field notes and audio recordings; we conducted content analysis of the transcribed documents to identify data related to nurse decision making.

Results: We focused on admission nurse decision-making of the patient problems to be addressed in the plan of care (POC), the non-nursing resources to be consulted (i.e., physical therapy, social work), and the nursing visit pattern (i.e., frequency of subsequent visits). The nurse referred to the patient problems and other contributing conditions identified in the hospital discharge and/or the physician homecare referral documentation. The nurse identified specific criteria for inclusion: problems that concerned the nurse; keeping the patient safe; pain management; and fall risks if there were many steps in the home. The EHR assisted POC development related to identification of interventions for each problem. Following nurse documentation of the assessment, the EHR presented a standard set of patient problems. The nurse selected a POC problem which triggered the display of a pathway which had decision branches that the nurse traversed as she selected POC interventions. Nurse identification of resources and selection of visit patterns was not assisted by the EHR. Resource decisions were prompted as the nurse reviewed the patient assessment, surveyed the patient's home environment, and as the patient raised concerns. When the nurse identified that the patient had a challenge that could be addressed by a non-nursing resource, she explained to the patient the intended benefit of the resource on the patient's condition. She then asked the patient if he/she would like the resource to visit him/her (i.e., shared decision making). The nurse explained that a visit pattern decision to schedule the return visit the next day was based on the patient's needing assistance within 48 hours. Subsequently, agency experts explained additional reasons for scheduling the first follow-up visit for the next day were if the nurse detected presence of symptoms or needed to demonstrate a nursing procedure to the patient or caregiver. Agency experts stated that more visits are scheduled at the start of the home care episode compared to the end of the episode as per the best practice guidelines for transitions in care. In addition to the admission visit, the nurse was observed to have scheduled two more visits for the first week for both patients and to schedule two visits for the second week for one patient.

Discussion: We conducted a pilot study to assess the feasibility of the use of selected human factors methods in preparation for a larger study that will investigate clinical decision making during homecare admission. Previous studies suggested that it was not clear how a nurse determined which problems identified in the assessment should be included/prioritized in the POC. Use of these methods did identify nurse decision making related to selection of the POC problems, nonnursing resources, and the nursing visit pattern. Our findings indicated that the study's EHR did not assist the nurse in these decisions. These pilot study results indicate that the methods used are appropriate for the larger planned study.

Conclusion: This study will inform the design of a larger study to identify improvements in homecare HIT systems that may reduce unplanned hospitalization readmission events. Study findings will also inform future HIT interventions related to transitions in care to and from homecare, such as Meaningful Use and clinical information exchange standards.