Process Indicators of Quality Clinical Pharmacy Services During Transitions of Care


Article Summary

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As a result of the typical nature of pharmacist’s roles, process indicators are considered to be suited to assess the quality of clinical pharmacist services. Even though process indicators that are relevant to the pharmacist role have not been extensively described in the literature, there are identifiable quality measures that can be influenced by pharmacist during transitions of care.

Pharmacist Activities and Process Indicators Applicable to All Health Care Settings

Pharmacists have the ability to participate in a variety of care transitions with the majority of pharmacist’s roles in transitions the published literature being depicted in transitions to and from hospital facilities. A service that is common to all settings is medication reconciliation. Medication reconciliation is defined as the process of avoiding “inadvertent inconsistencies in medication regimens across care transitions.” The process of medication reconciliation has been identified by Joint Commission as a National Patient Safety goal (NPSG) eight in 2005 to involve creation of an accurate list of medication that are taken by patients at a given time to include medications that the patient is allergic to or intolerant of and that these medications are discontinued temporarily for some particular reason. A revised goal, NPSG 03.06.01 that replaced NPSG eight, was developed in July 1, 2011 the included the maintenance, communication of accurate patient medication information. The revised goal consisted of five elements of performance which could be used to create indicators of process quality.

Pharmacist Activities and Process Indicators in Specific Settings

On Admission to Hospital or Facility

The transition from home to hospital is described as the most common point of error in a patient’s health journey. The errors can be caused by either lack of information about
a patient’s home medication or other problems that can be associated with the patients’ medication history. While medication history may not always be completed by pharmacists, pharmacists are in a special position to reconcile medications because of their knowledge and familiarity with drug products, patients’ medication use behaviors, and common drug-related problems. It has been shown that pharmacists’ review of medication history has been associated with a reduction in hospital mortality. The existence for a consistent medication reconciliation process with the availability of pharmacy responses to complete admission medication histories is recommended as a part of all hospitals policies and procedures. The process indicators for components of the medication history may include the percentage of all patients (or percentage of all high-risk patients, as appropriate) who have a completed medication history within 24 hours of admission; percentage of home medications reconciled on admission out of the total number of home medications; and the frequency of pharmacist-physician communication regarding medication discrepancies on admission orders out of the total number of home medication or total number of communications.

Moving Between Levels of Care Within the Same Facility

Although there is a high risk of medication misadventures when patients move between level of care within the same facility, few items have been published that evaluate or even define this process. In order to provide optimal care transition, the process should begin with medication reconciliation and this process should continue with each change in location service, and care provider, include all providers contributing to the care of the patient. The patient’s medication list should become a documented part of the patient’s medical record with all health care providers being able to have access to review and update the document when needed. Even though process indicators have not been formally identified with moving between levels of care within the same facility, there are measures such as the number of patients with a verified medication list or rates of medication discrepancies that occur or are prevented within a given period after transfer may be used to assess pharmacy services.

Discharge from One Facility to Another, Not to Home

The transition or transfer of a patient from a hospital to a nonhospital care facility such as a long-term care facility or skilled nursing facility can also have risks associated with them to include poor continuity of care, re-hospitalization, medication errors, and poor medication management. Patients from these nonhospital facilities can have several medications and can be generally older which can place them at risk of adverse events and other medication-related problems during care transitions. Process indicators within these nonhospital settings have been difficulty to establish because pharmacists may not be routinely provide daily care to patients. Although, the process indicators may include compliance with established policy or procedure encouraging standardized communication between facilities, the number of patients with completed medication regimen review, the number of patients with a completed medication list from the discharge facility within some reasonable time of admission to the next facility, or the number of proper medication discontinuations or changes during the transition.
Discharge from Hospital to Home and Ambulatory Care

A large body of evidence shows that there are some serious quality and safety concerns when patients experience a poorly coordinated transition from hospital to home. A reported outcome if hospital care is subsequent hospital readmission that may have been prevented by quality care and coordinated discharge. As a result of the substantial health care costs that can be associated with inadequate care during hospital discharge several process indicators have been developed for safe and effective transitions. The Care Transitions Performance Measurement Set approved by the Physician Consortium for Performance Improvement in 2009 was designed to be used by any health care professional during a patient’s transition from an inpatient health care facility and can be utilized by an individual practitioner or on a system level. The first approved measure by the National Quality Forum (NQF) which assess whether discharged patients or their caregivers received a comprehensive reconciled medication list at discharge which is a process that also aligns with Joint Commission’s new goal, NPSG 03.06.01: Maintain and communicate accurate patient medication information. The Care Transitions Performance Measurement Set is designed to evaluate effective care coordination at discharge, increase engagement, and enhance understanding of and adherence to treatment plans. The process indicator is relevant when it comes to evaluating pharmacist involvement in patient discharge when the pharmacist’s role encompasses medication oversight, including medication reconciliation and identification and resolution of medication-related problems. The AHRQ maintains the Consumer Assessment of Healthcare Providers and Systems (CAHPS) database, a national benchmarking database of discharged patient survey responses periodically reports the results from hospitalized patients and includes a measure of “patients” who reported that staff ‘always’ explained about medicines before giving it to them. The aggregate of national responses from a 2009 hospital discharge report suggests that 60% of patients describe staff as always explaining medications before administration so this leaves room for improvement.

As a result of a lack of published studies evaluating the process and outcomes associated with ambulatory care transitions, few process measures are endorsed or recommended by regulatory bodies or other organizations. The AHRQ published the Care Coordination Measures Atlas which has measures that are organized by domain and perspective to facilitate the most appropriate measurement strategy. The document provides a step-by-step guide in identifying relevant measures. One measure can be used to evaluate programs engaging a pharmacist in medication management during care transitions and care coordination being the resource and support for self-management measure. The RSSM can evaluate if self-management support is provided for chronic illness from the patient’s or caregiver’s perspective. Another measure of care coordination from the patient’s or caregiver’s perspective that can be used is the Primary Care Morbidity Hassles for Veterans with Chronic Illnesses which is a 16-item questionnaire/measure that evaluates the primary care physicians and health care system for veterans with chronic illnesses. The measure asks about problems the patient has had with health care, several of which address the lack of information surrounding medication therapy and poor coordination between providers.
Role of Patients in Transitions of Care

While process indicators focusing on patient’s role in care transitions do not currently exist, AHRQ works to provide excellent patient education resources aimed at preventing medication errors and encouraging safer medical care by promoting the patient’s active participation in his or her own health care. The patient, if possible, should be actively involved in medication reconciliation, communication among care providers, therapeutic decision-making, and evaluation of the risk-benefit ratio of all tests and procedures. Patient involvement is only enhanced by pharmacist delivered education about medications and improvement questions to ask patients regarding their treatments, expectations, and follow-up.

Conclusions and Future Directions

Several high quality projects and clinical trials have shown that pharmacists have can affect transition in a favorable manner, but much still remains to be examined. The primary function of pharmacists to date has to in the role of medication histories and medication reconciliation and to some capacity ensuring the continuity of care. Future studies should work to evaluate the pharmacist’s role in transition and define areas that are suited to pharmacist services. The main process indicator of pharmacist effectiveness has been the completion of chart-based medication reconciliation forms, but several other process indicators may be used to measure the quality of pharmacist’s services, in particular, with respect to transitions to and from acute hospitals. Additional studies should also propose and test process indicators for transitions within a single facility, between facilities, and among ambulatory in relation to the developing medical home model.