Discussion Brief
Audio Conference with Joint Commission President Dennis S. O'Leary, M.D.
February 28, 2007
11a.m. P.T./Noon M.T./1 p.m. C.T./2 p.m. E.T.

Discussion Topic: Medication Reconciliation

Medication errors are arguably the most common type of medical error and, while most do not cause harm, many do, accounting for approximately 20% of all harmful events in health care. Of these, about half are associated with transitions in care. The development, reconciliation and communication of a complete and accurate medication list across the continuum of a patient's care are essential to the reduction of transition-related adverse drug events.

Background:

In 2004, The Joint Commission announced its intent to introduce a new set of National Patient Safety Goal requirements to address medication errors that relate to the transmittal of incomplete or inaccurate information at transitions in care. The identified need for an effective transmittal process—termed medication reconciliation—is based on the fundamental observation that in order to use medications safely, the prescriber must know what medications the patient has been taking. This is not a new expectation. For several years, the Joint Commission's Medication Management standards have required that whenever medications are used, a list of the patient's current medications must be available to those involved in management of the patient's medications.

While the process of collecting a list of current medications, comparing it to the new medications being ordered, updating the list to make it current, and communicating that information to other providers of the patient's care seems fairly straight-forward, these have proven to be particularly vexing requirements to meet in a consistent manner across the full continuum of care. This is, after all, not simply an inpatient activity; it must occur in all settings of care, wherever and whenever medications are used: in clinics, imaging centers, emergency departments—even in physician offices.

The Sentinel Event Advisory Group advises the Joint Commission on the development and annual update of the National Patient Safety Goals and their related requirements. In considering the potential inclusion of medication reconciliation into the Goals, the Advisory Group acknowledged the potential implications of requiring this seemingly simple process across the full spectrum of health care. As a result, the Group recommended the introduction of medication reconciliation into the 2005 National Patient Safety Goals—but with a new twist. For the first time in the short history of the National Patient Safety Goals, a full year was provided to permit health care organizations to plan, develop, and test the new process. Full implementation was not expected until the start of 2006. Now, with over a year of experience with "full implementation," it is clear that the challenges of implementation were underestimated.

<u>Description of the Process</u>:

The purpose of medication reconciliation is to avoid omissions, duplications, dosing errors, and potential adverse interactions among the drugs being prescribed. It includes the following five steps:

1. Upon entry of the patient into the health care setting, **develop a complete and accurate list** of all medications the patient is currently taking.
2. **Compare** the list of the patient's current medications with the medications being ordered/prescribed **and reconcile** any discrepancies.
3. **Update the list** of the patient's medications and repeat the comparison and reconciliation process whenever changes are made in the patient's medication regimen as he or she moves through the care continuum.
4. **Communicate the list** of the patient's current medications to the next provider of care and to concurrent providers of care at each transition and at discharge.
5. At the end of the episode of care, **provide the patient a list** of all medications he or she is to be taking following discharge.

Despite the apparent simplicity of these five steps, medication reconciliation is a complex process that involves multiple professional disciplines in virtually all settings of care. The effective and efficient implementation of the medication reconciliation process should ideally involve integration of its steps into existing medication management and patient flow processes, rather than simple superimposition of new tasks onto existing patient care processes. A quick review of the patient care processes that intersect with medication reconciliation reveals just how complex this can become. These include:

- Patient admission/intake
- Initial patient assessment
- Medication ordering, preparation and dispensing
- Documentation of care
- Internal patient transfer procedures
- Communication of information among providers
- Discharge planning
- Patient education and discharge instruction

If medication reconciliation is recognized as largely a matter of information management, the specifics of implementation will depend to a considerable degree on the health care organization's existing systems and processes for collecting, using, and communicating information, whether this be through the use of paper or electronic medical records. The information management activities undertaken in support of medication reconciliation should be integrated to the degree possible into these existing systems and processes by adapting the tools currently being used (such as forms and data collection tools) and aligning work flow to optimize the efficiency of the integrated process.

The culture of the organization with respect to interdisciplinary collaboration and teamwork significantly influences the efficiency and effectiveness of the medication reconciliation process. Medication reconciliation is best conducted in an environment of shared accountability. Although implementation details vary from one organization to another, the extent to which nurses, pharmacists, and physicians collaborate to design and implement the process will determine its ultimate impacts in improving patient safety and realizing desired efficiencies.

The success of this initiative also depends on active engagement of the patient and his or her family. Their participation should be expected and encouraged by involving them in the development of a complete and accurate list of the patient's medications, keeping them informed about the medications the patient is receiving, educating them about potential side effects and risks and what to look for, and providing the means and encouragement to report any concerns they might have.

In sum, while the basic principle of information-based medication use and its value to patient safety are generally accepted, the process itself can be challenging. But successful implementation is achievable. To undertake medication reconciliation effectively and efficiently requires careful planning and early involvement of the clinicians and others who will be affected by the process, process design that is as simple and as standardized as possible, thorough testing and monitoring, and regular feedback of results, especially the errors intercepted, to all who are involved in medication management.