The Joint Commission

Sentinel Event Alert

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The Joint Commission recognizes that many patients may be too ill, injured, young, or disabled to actively participate in the medication reconciliation process. In addition, patients may need the assistance of another person (e.g., family member, significant other, surrogate decision maker) if they are overwhelmed in managing their condition, are not proficient in speaking or reading English, or face health literacy challenges that might prevent them from understanding medication use directions. Therefore, the following addition should be included in the section titled "Joint Commission requirements and recommendations."

Addendum to Sentinel Event Alert #35, Using medication reconciliation to prevent errors

4) When the patient is unable to actively or fully participate in the medication reconciliation process and has requested assistance from another person(s) (e.g., family member, significant other, surrogate decision maker), involve the authorized person(s) in the medication reconciliation process. This involvement should occur at all interfaces of care, and on admission to and discharge from the facility.

Updated Feb. 9, 2006

Using medication reconciliation to prevent errors

Medication reconciliation is the process of comparing a patient's medication orders to all of the medications that the patient has been taking. This reconciliation is done to avoid medication errors such as omissions, duplications, dosing errors, or drug interactions. It should be done at every transition of care in which new medications are ordered or existing orders are rewritten. Transitions in care include changes in setting, service, practitioner or level of care. This process comprises five steps: 1) develop a list of current medications; 2) develop a list of medications to be prescribed; 3) compare the medications on the two lists; 4) make clinical decisions based on the comparison; and 5) communicate the new list to appropriate caregivers and to the patient.

Accurate and complete medication reconciliation can prevent numerous prescribing and administration errors. Failure to reconcile medications may be compounded by the practice of writing "blanket" orders, such as "resume pre-op medications," which are highly error prone and are known to result in adverse drug events. (1) Such orders are explicitly prohibited by the Joint Commission's Medication Management standards (MM.3.20).

Medication errors related to medication reconciliation typically occur at the "interfaces of care"—when a patient is admitted to, transferred within, or discharged from a health care facility. (2), (3) Furthermore, the home care department of one hospital discovered that 77 percent of all patients were discharged with inadequate medication instructions. (4) Medication reconciliation systems and processes have successfully reduced medication errors in many health care organizations. Pharmacy technicians at one hospital reduced potential adverse drug events by 80 percent within three months by obtaining medication histories of patients scheduled for surgery. (1)

The Joint Commission's sentinel event database includes more than 350 medication errors resulting in death or major injury. Of those, 63 percent related, at least in part, to breakdowns in communication, and approximately half of those would have been avoided through effective medication reconciliation. The Institute for Safe Medication Practices (ISMP) has received numerous reports of medication reconciliation errors; its Medication Safety Alert newsletter of April 21, 2005 includes a sampling of such errors that resulted from failed communication. (5)

Causes of medication errors identified

In September 2004, the United States Pharmacopeia (USP) added three "Causes of Error" to its MEDMARX® reporting program to capture errors involving medication reconciliation failures.6 From September 2004 to July 2005, USP received 2,022 reports of medication reconciliation errors. Of those reports, 66 percent occurred during the patient's transition or transfer to another level of care, 22 percent occurred during the patient's admission to the facility, and 12 percent occurred at the time of discharge.

Of the types of medication reconciliation errors reported to MEDMARX, the majority involved improper dose/quantity, followed by omission error and prescribing error. Other less frequently reported types of error included: wrong drug, wrong time, extra dose, wrong patient, mislabeling, wrong administration technique, and wrong dosage form.

The causes of medication reconciliation errors reported to MEDMARX included performance deficit (performance that falls short of expectations) (nearly 88 percent), transcription inaccurate/omitted (84 percent), documentation (83 percent), communication (82 percent), and workflow disruption (80 percent). USP also published several case examples of reconciliation failures during patient admission, transfer, and discharge. (6)

Risk reduction strategies

Medication reconciliation is a key initiative in the Institute for Healthcare Improvement's (IHI) 100,000 Lives Campaign. The IHI

website (www.ihi.org) includes a section on Medication Reconciliation Review, including samples of a reconciliation tracking tool and a medication reconciliation flowsheet. (7) The Massachusetts Coalition for the Prevention of Medical Errors(8) has identified practices to reconcile medications throughout an organization. The core recommendation of the Coalition is to "adopt a systematic approach to reconciling medications, starting with reconciling at admission." This successful initiative is based on the work of 50 Massachusetts hospitals (76 percent of the hospitals in the state) that pilot-tested the initiative to hone the practices and tools used to implement them. The Massachusetts Coalition's practices for reconciling medications at admission include:

- Collect a complete list of current medications* (including dose and frequency along with other key information) for each patient on admission.
- Validate the home medication list with the patient (whenever possible).
- Assign primary responsibility for collecting the home list to someone with sufficient expertise, within a context of shared accountability.
- Use the home medication list when writing orders.
  Place the reconciling form in a consistent, highly visible location within the patient chart (easily accessible by clinicians writing orders).
- Assign responsibility for comparing admission orders to the home medication list, identifying discrepancies, and reconciling variances to someone with sufficient expertise.
- Reconcile medications within specified time frames (within 24 hours of admission; shorter time frames for high-risk drugs, potentially serious dosage variances, and/or upcoming administration times).
- Adopt a standardized form to use for collecting the home medication list and for reconciling the variances (includes both electronic and paper-based forms).
- Develop clear policies and procedures for each step in the reconciliation process.
- Provide access to drug information and pharmacist advice at each step in the reconciliation process.
- Improve access to complete medication lists at admission.
  Provide orientation and ongoing education on procedures for reconciling medications to all health care providers.
  Provide feedback, on-going monitoring. (8)

Joint Commission requirements and recommendations

In July 2004, the Joint Commission announced 2005 National Patient Safety Goal #8 to "accurately and completely reconcile medications across the continuum of care." During 2005, accredited organizations were required to develop and test processes for medication reconciliation to be implemented by January 2006. The requirements of the Goal for 2006 are:

> 8a) Implement a process for obtaining and documenting a complete list of the patient's current medications upon the patient's admission to the organization and with the involvement of the patient. This process includes a comparison of the medications the organization provides to those on the list. [Note: While this safety goal does not require a separate form for the medication list, many organizations have found it useful to develop and implement one or more forms to support the medication reconciliation process.]
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> 8b) A complete list of the patient's medications is communicated to the next provider of service when a patient is referred or transferred to another setting, service, practitioner or level of care within or outside the organization.**

Implementation Expectations for Requirement 8b state: At a minimum, reconciliation must occur any time the organization requires that orders be rewritten and any time the patient changes service, setting, provider or level of care and new medication orders are written. For transitions not involving new medications or rewriting of orders, the organization should determine whether reconciliation must occur.

It is important to note the full scope of this safety goal: "... across the continuum of care." This means medication reconciliation applies to all care settings—including ambulatory, emergency and urgent care, long term care, and home care—as well as inpatient services.

In addition, the Joint Commission recommends that health care organizations consider:

1. Placing the medication list in a highly visible location in the patient's chart and including dosage, drug schedules, immunizations, and allergies or drug intolerances on the list.
2. Creating a process for reconciling medications at all interfaces of care (admission, transfer, discharge) and determining reasonable time frames for reconciling medications. Patients, and responsible physicians, nurses and pharmacists should be involved in the medication reconciliation process.
3. On discharge from the facility, in addition to communicating an updated list to the next provider of care, provide the patient with the complete list of medications* that he or she will be taking after discharge from the facility, as well as instructions on how and how long to continue taking any newly prescribed medications. Encourage the patient to carry the list with him or her and to share the list with any providers of care, including primary care and specialist physicians, nurses, pharmacists and other caregivers.

* Medications in these references include prescription medications, over-the-counter medications, vitamins, herbals, nutriceuticals, and others.

** With regard to Requirement 8b, the medications that need to be communicated to the next provider, organization, level, or setting of care are all the medications that the patient is to be on following discharge or transfer, not just the prescription medications that are "ordered" at discharge. The list of "discharge medications" provided to the next provider or organization should already have been reconciled in the hospital against the list of medications the patient was receiving while in the hospital as well as against the original list of medications the patient was taking prior to entry

to the organization.

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4. M.R. Aufseeser-Weiss, B.S.N., R.N., "Medication Use Risk Management: Hospital Meets Home Care," Journal of Nursing Care Quality, 2001; 15(2):50-57
5. ISMP Medication Safety Alert, April 21, 2005, http://www.ismp.org/MSAarticles/20050421.htm
6. USP Patient Safety CAPSLink™, October 2005, United States Pharmacopeia
7. Institute for Healthcare Improvement website includes a section on Medication Reconciliation Review, including samples of a reconciliation tracking tool and a medication reconciliation flowsheet, http://www.ihi.org/
8. Massachusetts Coalition for the Prevention of Medical Errors website includes spreadsheets for data collection, generating charts, implementation strategies and tools, www.macoalition.org

Resources

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