Clinical Alert

Volume 4, Number 1
Spring 2007

Maryland Department
of Health and
Mental Hygiene

Office of
Health Care Quality
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Patient Safety Clinical Alert No. 1, March 2007

Medication reconciliation error between a hospital and long term care facility

Case Background*

Medication management is a known cause of frequent and important errors in various clinical settings, with sometimes disastrous effects upon the patient. A recent case, referred to the Office of Health Care Quality from the Office of the Chief Medical Examiner, demonstrates how easily substantive errors can be made in transferring a patient from one facility to another. While this case specifically involves a hospital and a nursing home transfer, we are distributing it for educational purposes to other residential facilities as well.

An 80 year-old male, living at home, was admitted to the hospital via the emergency room with a history of diarrhea for two weeks. Evaluation revealed a patient who was weak, dehydrated, and had a low grade fever.

The patient had been taking a number of medications at home, including the cardiac medications Lopressor, a beta blocker, Norvasc, a calcium channel blocker, and Uniretic, to treat high blood pressure. Once in the hospital, the patient was taken off the Uniretic and started on Ramipril, another ACE inhibitor.

After a complicated hospital course, requiring treatment for C. difficile and a blood clot in a vein in his right arm, the patient was discharged to a local nursing facility for rehabilitation. Clostridium difficile, or C. difficile, is a bacterium responsible for the majority of cases of diarrhea in institutional settings.

The transfer summary dictated by the physician at the hospital mistakenly substituted the drug Amaryl, an antidiabetic medication that increases the amount of insulin produced by the pancreas, at a dose of 5 mg, for Ramipril, 5 mg.

There is no mention of the patient suffering from diabetes mellitus on the discharge summary sent to the nursing facility, nor is there any indication in the medical record, lab tests, or previous hospitalizations that this patient was a diabetic. The transfer summary was not seen by the physician who dictated it, nor was it signed by the physician prior to the patient's transfer. The hospital's review of the dictation tape revealed that the physician simply misspoke and said Amaryl instead of Ramipril

Transfer summaries are not intended to be an order sheet but rather a summary of the patient's course while in the hospital. However, most facilities that accept patients from hospitals will use the transfer summary as orders for medications and treatments, at least until the facility physician can see the patient. This practice assumes that the information contained in a discharge summary is complete and accurate which is not always the case. In addition, most facilities will not accept a patient from a hospital without a discharge summary, adding urgency to the process of dictating and transcribing the note.

The patient arrived at the nursing facility on 9/7/06 and was assigned an

*Some information has been changed so as not to identify the patient or health care providers pursuant to COMAR 10.07.06

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attending physician (different from the physician who had managed his care in the hospital). A history and physical examination of the patient was performed by the nursing home physician on 9/7/06 who then ordered Amaryl daily to treat "diabetes". It should be noted that this patient was alert, oriented and could certainly have related a history of diabetes (or lack there of) if the physician had attempted to elicit it. Unfortunately, this was not done. The physician did order the nursing home staff to obtain daily blood glucose readings via finger stick on this patient but inexplicably this order was not carried out.

The patient's course in the nursing home was unremarkable until day three when during the early morning hours he was found unresponsive. His blood glucose was noted to be 20 mg/dl (normal blood glucose 80 to 120 mg/dl) and the patient was re-hospitalized at the facility at which the dictation error had occurred. There, because he arrived hypoglycemic and was on an oral antidiabetic agent, he was given the diagnosis of diabetes mellitus. Even though the hospital was able to correct his blood sugar, the patient had already suffered irreparable brain damage and did not recover consciousness. He died a few days later of severe anoxic encephalopathy secondary to profound hypoglycemia.

This case graphically demonstrates what can happen when erroneous information is put on a hospital transfer summary and when the receiving facility fails to question such information. Neither the health care staff sending the patient nor those receiving him questioned the apparent order for an oral antidiabetic medication without a diagnosis of diabetes mellitus.

Questions Raised

1. How does the sending facility ensure that whatever information is sent with the patient is correct? Who is given the final authority to do this?

2. The sending physician did not check the dictation before it was sent with the patient. Is this a frequent occurrence?

3. How can the staff at the receiving facility ensure that erroneous information on a discharge summary does not become part of the plan of care?

4. Could this happen in your facility?

Commentary:

In July, 2004, the Joint Commission on Accreditation of Healthcare Organizations (JCAHO), which accredits hospitals, added medication reconciliation to its list of National Patient Safety Goals. Accredited organizations were to have developed and tested reconciliation processes by January of 2006. According to the Comprehensive Accreditation Manual, the organization is required to reconcile medications any time a patient changes services, settings, providers, or level of care within or outside the organization. The Joint Commission recommends that organizations involve the responsible physician, nurses, pharmacists, and the patient/family in medication reconciliation. The patient should be given a complete list of current medications with full instructions when he or she is discharged from a hospital, and should be encouraged to carry the list and share it with other providers.[1]

Discrepancies between the medications a patient is taking at home and the medications ordered upon admission to the hospital have been found in over half of patients surveyed [2] Omission of home medications on the admission

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orders is the most frequent medication error on admission. Another hospital admission error seen frequently in adverse events submitted to the Office of Health Care Quality is the lack of allergy information being carried forward from one admission to another.

Medication reconciliation also needs to occur at every transition of care and needs to be a part of care coordination and continuity. This will require a team effort and some time. Hospitals would do well to look at the current workflow to determine how to optimize hand-off and discharge processes before another task, like reconciliation, is added. Prescribers and care givers need to recognize just how crucial this task is—one study reported 12% of patients experienced an adverse drug event within two weeks of discharge.[3]

During years of reviewing medical records, staff at the Office of Health Care Quality have seen discharge instructions that are blank, incomplete, carry no rationale for the medication, are illegible, or are written in jargon incomprehensible to the lay person. Who in your hospital is responsible for ensuring patients are discharged or transferred with complete, accurate information? Does medication reconciliation start at admission?

If you are a facility receiving patients from hospitals, be advised to critically evaluate all information received with the patient.

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1. www.jcaho.org

2. Cornish PL, Knowles SR, Marchesano R. Unintended medication discrepancies at the time of hospital admission. *Arch Intern Med*. 2005;165:424-429. From http://www.amwa-doc.org/index.cfm

3. Foster AJ, Murff HJ, Peterson JF. The incidence and severity of adverse events affecting patients after discharge from the hospital. *Ann Intern Med* 2003;138:161-167. From http://www.amwa-doc.org/index.cfm

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Clinical Alert
is published periodically by the
Maryland Department of Health and Mental Hygiene, Office of Health Care Quality