Security efforts help hospital reduce drug diversion, improve compliance

Preventing drug diversion begins with a look at the overall system at the hospital, not at the individuals suspected of stealing drugs.

“Focus on the system, not the employee,” says Mitch Sobel, RPh, assistant director of pharmacy for operations at St. Barnabas Medical Center in Livingston, NJ. “Otherwise, you’re never going to figure out what’s going on with your system.”

Track with technology
Saint Barnabas uses Pyxis automated dispensing units and software to help track medications used in the hospital. Combined with other diversion-prevention efforts such as cosignatures on reports and

ISMP, FDA partner to launch error-prone abbreviation campaign

Two years after the JCAHO mandated that practitioners remove nine medical abbreviations from their lexicon, a nonprofit organization and the federal government will team up to provide education about dangerous short-form medical writing.

The Institute for Safe Medication Practices (ISMP) and FDA will launch an educational campaign this spring to teach practitioners, medical schools, the pharmaceutical industry, and even FDA staff about the dangers of the nine unapproved abbreviations on the JCAHO’s list and the other symbols and abbreviations on the ISMP list. In the latest data available, 4% of the 235,159 errors reported to the U.S. Pharmacopeia MEDMARX error database in 2003 were caused by abbreviations.

JCAHO National Patient Safety Goal #2B requires organizations to standardize a list of abbreviations, acronyms, and symbols that may be used. Visit www.jcaho.org/accredited+organizations/patient+safety/chu.htm to view the JCAHO’s prohibited abbreviations list.

“The Joint Commission has come on board saying we have to eliminate [abbreviations] in the hospital setting,” says Allen Vaida, PharmD, FASHP, the institute’s
**Drug diversion**

collaboration from the nursing, security, and medical staff departments, the hospital has had few problems during the past two years, Sobel says.

“Discrepancy issues may occur several times per year on the floors, but now they can be identified and resolved quickly,” Sobel says.

The system allows the hospital to run reports by user to see who removes what drugs, how many patients a nurse may have, and how many doses staff remove.

Narcotics are not the only drugs to worry about. For example, the hospital once had a problem with the antidiarrhea drug Lomotil, losing 10,000 tablets per month, Sobel says.

However, the hospital only had five patients per month on the drug.

Sobel was able to view the purchase history report to see how much the hospital bought compared to how many patients used the drug, he says. Now the drug is stored in the hospital’s narcotic safe system.

Sobel can also run a report to track practitioner use. For example, a nurse may say she has 20 patients per day, although most only have between five and 10, he says. The Pyxis machine can tell that the nurse is pulling more doses than the patient receives, he says.

Human error, not deliberate diversion, is often the cause of discrepancies, Sobel says. Sometimes a staff member may type too fast, enter the wrong quantity into the Pyxis machine, and take too much by mistake.

“We’re able to catch and correct the error [with an electronic system] before it affects or reaches the patient,” Sobel says. “We won’t hurt the patient with too much medication.”

St. Barnabas has its own employee assistance program for employees who have a drug dependence problems, Sobel says.

If staff are caught diverting drugs, they are referred to the program and the proper authorities are alerted, he says.

“We want to help the practitioners as well, so they don’t hurt themselves or others,” Sobel says.

**Keep a log**

Sobel gets help tracking and investigating diversions from Information Systems Pharmacist **Drew Plowman, RPh**, and Corporate Security Officer **Orlando Caprio, BS, MA, MS**. Plowman can see whether a drug was sent to the wrong unit or patient, and Caprio—a former police officer—can investigate issues further.

The patient care staff at St. Barnabas count narcotics every day, so that if a discrepancy occurs, they only have to look back at the previous 24 hours to determine when the problem occurred, Sobel says.

**Tip:** Keep a discrepancy monitoring log, which you can use to show the JCAHO and state agencies how you track narcotic discrepancies, Sobel says. The agencies want to know that controlled substances are documented and the information is retrievable.

**Watch wasted meds**

JCAHO standards also want hospitals to focus on wasted drugs—those that aren’t suitable for patient use anymore.

“We don’t always think about waste when thinking about diversion,” Sobel says.

Sobel purchased a street mailbox in which staff deposit wasted medications. The box remains locked until the medications are discarded, he says. The system eliminated waste diversion.

**Keep documentation**

Documentation is one key to preventing future diversion. Significant losses must be reported to the Drug Enforcement Administration (DEA) and state and local officials, Sobel says.
These types of losses can be determined by the quantity (e.g., one bottle or container versus one pill) and type of drug missing, Sobel says.

**Tip:** If a question exists about whether a loss is significant, err on the side of caution and report it, Sobel says.

Document and file any small quantities of medications that go missing. For example, record it if one tablet of percocet is missing, although there is no need to report it to authorities, Sobel says.

The documentation can help pharmacists determine whether the small quantity missing will develop into a pattern of diversion, which should then be reported, Sobel says.

Hospitals should maintain discrepancy and diversion data for at least five years, Sobel says. The DEA says hospitals must be able to retrieve two years of diversion information, but keeping the documents on-site for longer is a good policy, he says.

**Focus on all drugs**

Although diversion-prevention efforts typically focus on narcotics and other controlled substances, other drugs could be involved, says John Uselton, BSPharm, vice president of operations improvement for Cardinal Health in Houston. Uselton spoke during the American Society of Health-System Pharmacists Midyear Clinical Meeting in Las Vegas in December 2005.

“Certainly any drug can be diverted,” Uselton says. “Expensive drugs are as at risk for diversion as narcotics and controlled substances.”

**Tip:** Look at freight dumbwaiters or tube systems and check whether medications come out in unsecured areas, Uselton says.

If certain areas of the hospital have experienced problems with diversion in the past, pay attention to those areas when preparing for a JCAHO survey, Uselton says. Particular areas of interest include controlled drugs and automated distribution, he says.

Staff should also pay attention to anesthesia and respiratory therapy, Uselton adds. About 90% of the patient medication inventory at St. Barnabas is stored in the hospital’s Pyxis units, Sobel says, which makes it easier to track access to drugs.

**Use a team approach**

Even if your hospital uses manual distribution and documentation systems, you can still fight diversion effectively. The hospital should organize a committee and delegate responsibilities, Sobel says.

For example, one person should handle the ordering, another should review distribution practices, and another person should investigate discrepancies. Everyone should have someone else cosign when documenting his or her actions, Sobel says.

The system administrator—typically a pharmacy director—is the person with the most liability for the controlled substance monitoring program, Sobel says. Even that person requires a double-check.

“When a person is isolated, that’s when a diversion could occur,” he says.

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**Upcoming events**

**Audioconferences:**

**February 17**—Hand-offs: Proven Methods to Enhance Communication (Q021706)

**February 28**—Requirements for Improvement: Before, During, and After Survey (A022806)

**March 7**—Periodic Performance Review Management in an Unannounced Survey Climate (A030706)

**March 16**—Medication Reconciliation: Complying with the JCAHO (Q031606)

Call customer service at 800/650-6787 to register.
Abbreviations

executive director. “We want to take it to that higher level and say, ‘Hey, we have to get the whole medical community on board.’”

That effort will involve three phases, including
- the medical community (e.g., practitioners and medical schools)
- the pharmaceutical industry
- drug reviewers from the FDA’s Center for Drug Evaluation and Research (CDER)

Getting at practitioners
The ISMP and FDA will work with professional organizations and medical schools to distribute information on Web sites and through e-mail lists, Vaida says. A fact sheet and brochure will tout the dangers of using error-prone abbreviations.

Visit www.ismp.org/Tools/abbreviationslist.pdf to view the ISMP’s full error-prone abbreviations list.

The campaign will also attempt to use trade and professional journals to talk about error-prone abbreviations and the methods to eliminate their use, Vaida says.

The campaign will apply to all healthcare workers, even though physicians will be the main focus, Vaida says. The need for pharmacists and nurses to police physicians and catch unapproved or error-prone abbreviations must stop, he says.

“We have to get back to the source,” Vaida says of physicians.

One way to do that is to reach physicians early in their training. Many interns and residents pick up the habit of using abbreviations from their attending physician, and teaching students proper habits early will help prevent the need to undo dangerous ones later in their careers, Vaida says.

“It’s very important to hit them during their training,” Vaida says. “It’s at a point where the schools aren’t promoting bad practices as much as they are not promoting good practices.”

Big pharma can also help
The campaign will also partner with the pharmaceutical industry to eliminate dangerous abbreviations before the medications hit the market. The ISMP will work with the Pharmaceutical Research and Manufacturers of America to help spread informational materials to companies, Vaida says.

The problem at the manufacturing level is that dose designation for a medication could be written as u for units—an abbreviation the JCAHO has banned—or drug advertising could have a dangerous abbreviation, Vaida says. Physicians might then write the dose or drug form on an order based on the abbreviation they just read, he says.
That practice needs to stop, Vaida says.

“This isn’t just a campaign to say, ‘Let’s not use dangerous abbreviations when we prescribe,’ ” Vaida says. “We shouldn’t have these in print. They shouldn’t be in drug advertisements.”

Educating the FDA
The ISMP will work with CDER public relations staff to create an outline to teach drug reviewers and other FDA staff about dangerous abbreviations, Vaida says. When they review drug labeling and packaging, they can have the list in mind, he says.

The FDA will use in-house resources to develop and distribute materials, spokesperson Christine Parker says, meaning there are no costs associated with the campaign at this time.

“In the interest of public health, the FDA wants to get the message out that there are error-prone abbreviations that contribute to medical errors and therefore should be avoided,” Parker says.

The campaign is still in the development, so more details will be released later regarding educational materials, Parker says.

The ISMP will post several campaign materials on its Web site, Vaida says, allowing organizations to view materials for themselves.

“What we’re trying to do is package it to make it a real turnkey operation,” Vaida says.
Private payers  < p. 5

- 90766 (each additional hour, up to eight hours) x 2

Note that you cannot pick the first hour IV push code, 90765, because it contains the word initial in its CPT description and nursing staff have already begun a line.

If you attempt to crosswalk this to Medicare, covert 90744 directly to C8952 (therapeutic/prophylactic/diagnostic injection, IV push) and 90766 x 2 to C8951 (IV infusion for therapy/diagnosis; each additional hour, list separately in addition to C8950) x 2.

However, C8951 is packaged, and packaged services do not generate separate payment. Also, the description of C8951 clearly states that you must bill it in addition to C8950 (IV infusion for therapy/diagnosis; up to one hour).

Therefore, it is appropriate to report the following codes to Medicare:

- C8952 x1
- C8950 x1
- C8951 x1

Also consider payment problems. C8952 maps to APC 359, paying $47.82. 90745 (status N, or packaged) has no separate APC payment, but C8950 maps to APC 120, paying $120.77.

Correctly reporting this scenario generates a payment of $168.59 to Medicare. However, reporting it through the use of a crosswalk—assuming the claim passed through bill edits—results in payment of only $47.82.

Ask questions, seek solutions

To solve the Medicare versus private payer quandary, hospitals must ask and develop answers to the following operational questions:

1. Do you have non-Medicare payers that require the new 33 CPT codes, rather than Medicare’s requirement (a combination of 20 CPT codes and eight HCPCS codes)? If so, you have major decisions to make about which codes will be used, who will charge/code these services and when, whether bill edits are required, etc.

2. Will you continue to charge drug administration services at the point of care? If yes, will you train staff on all of the new codes and rules and ask them to check off services on the encounter form based on payer type? Or will staff simply use the CPT codes and rely on internal systems to convert to the appropriate Medicare C codes?

3. If your charging staff only charge based on the new CPT descriptions, will you be ready with bill edits to convert the CPT codes to the Medicare C codes, given that a crosswalk alone is not enough? Can your systems support billing edits/logic that break out CPT codes into multiple C codes with appropriate units and dollar amounts, “which, again, is much easier said than done,” says Shah.

Solution #1: Set the same dollar charge

One solution is to set the same dollar charge for several of the new CPT codes, so when they map to Medicare specific C codes, “charges are equivalent for both Medicare and non-Medicare patients,” Shah says.

For example, set up your charges so all the CPT codes that crosswalk to C8950 and C8951 carry the same dollar amount.

One way to do this is to take an average of your first hour code and the each additional hour code. This removes the front-loading of the first hour code.

But check with finance and cost report representatives first to ensure that this is an acceptable practice. Make sure that there are no other unintended effects of making such a change, Shah says.

Solution #2: Have HIM do the coding

Instead of the traditional nursing/infusion staff model, consider using health information management (HIM) code drug administration claims.

Shah notes that providers that have the HIM manpower are considering this strategy.
Medicare update

Medicare expands Part D helpline for pharmacists

The Centers for Medicare & Medicaid Services (CMS) expanded its pharmacist helpline after a tumultuous first week for its new Part D drug benefit.

The toll-free line (866/835-7595) allows pharmacists to check the eligibility of beneficiaries purchasing medications. Reports of pharmacists waiting three to five hours for a response from drug plans about a patient’s eligibility were widespread during the first week of the program, which started January 1.

The helpline, which Medicare senior policy advisor Larry Kolcot said during a January 10 open-door forum is for pharmacists only, is now open 24 hours per day, seven days per week. Staff on the helpline have increased from 150 to nearly 4,500 people, Kolcot said.

In addition, the computer system used to verify eligibility has sped up since January 1, Kolcot said.

“We’re now operating under a fraction of a second return,” Kolcot said. “Pharmacists have filled millions of prescriptions, and beneficiaries have realized savings they have never seen before.”

Eligibility problems exist

But many news reports during the first week of the benefit told of patients not being able to obtain medications because of problems verifying their eligibility for the drug benefit.

Some states began setting aside money to pay for patients’ prescriptions if they were denied medication due to confusion with the benefit.

Many pharmacies gave patients an emergency three-day supply, according to news reports.

If beneficiaries cannot obtain their medications and alternative therapies are not available, pharmacists should call 800/MEDICARE and officials will refer them to the appropriate regional office, Kolcot said.

Issues will be handled on a case-by-case basis, he said. “We want to make sure that no one [who needs medication] goes without a prescription,” Kolcot said.

Tip sheet for duals

Problems with dual eligibles—patients covered under both Medicare and Medicaid—emerged during the first week of the Part D benefit. Most dual eligibles will have little or no copayment under Part D.

Some dual eligibles were unable to obtain medications during the first few days of the benefit due to confusion on the part of many drug plans, the newsletter Medicare Reform Advisor reported January 3.

“They’re being asked to pay 100% for their meds,” Vicki Gotleib of the Centers for Medicare Advocacy told the newsletter.

If drug plans reject a beneficiary’s claim inappropriately, pharmacists should contact their CMS regional office to discuss the case, Kolcot said.

CMS regional office contacts can be found at www.cms.hhs.gov.

Monitoring effectiveness crucial to reconciliation success

Although the JCAHO’s medication reconciliation National Patient Safety Goal does not require facilities to measure their medication reconciliation process, monitor your process regularly to gauge its effectiveness.

Although anecdotal feedback from your pilot unit will help you tweak your form and enhance your medication reconciliation procedure, quantitative data will allow your team to confirm that substantive gains have occurred since you introduced the process.

The medication reconciliation goal took effect January 1. The JCAHO has said it will not give hospitals any leeway when scoring the goal this year.

Baseline measurement
To assess your progress through the pilot stage and beyond, collect a baseline measurement before starting the medication reconciliation process. Do so using a random sample of facilitywide charts.

To gather a baseline measurement, conduct chart audits before implementation of medication reconciliation. Chart audits also can be a quick and easy way to assess staff effectiveness and compliance with your medication reconciliation process.

The team leader can be in charge of completing the audits, but utilize your multidisciplinary team to improve efficiency and education.

Although all medications will be unreconciled if you have not yet implemented a medication reconciliation process, these audits still provide a good opportunity to assess where you stand with your current documentation. How do you currently collect a patient’s medication history? Which forms do you already use?

You might see an opportunity to tailor one of your existing forms or borrow a medication reconciliation form from another organization.

During the chart audit, transcribe the home list onto a borrowed tool, review the physician admission order set, and complete admission reconciliation. Were all the admission medications reconciled? Remember, you only need to review 20 charts.

Continue with the process by making any additions, deletions, changes in amount route, or frequency of administration of medications. You might even want to test different borrowed forms on different charts to determine which one works best for your facility.

Also assess discharge compliance by comparing the information on your medication reconciliation form against the physician discharge medication orders. Were all the discharge medications reconciled?

Use this assessment to rate your current medication reconciliation compliance and set a goal for future compliance once your process has been implemented (e.g., 95% compliant within six months). The industry standard for reconciling medications prior to officially implementing the process is 78%.

Data collection forms
The Massachusetts Coalition for the Prevention of Medical Errors has a useful chart audit tool that makes collecting data about medication reconciliation compliance much easier. This tool can be downloaded from the coalition’s Web site at www.macoalition.org.

The Web site includes a baseline data version of the tool and an ongoing chart audit tool, both of which

Get compliance tips with Medication Reconciliation: Practical Strategies and Tools for JCAHO Compliance by Maureen Gibbs, RN, BSN. ©2005, HCPro, Inc. For more information or to order, visit www.hcmarketplace.com or call 800/650-6787.
are similar in usage.

See a sample individual patient data collection form on p. 10.

Use this form to enter individual patient record data from each chart. Create a new, similar form for your own chart audits, or adapt this form to your facility’s needs. On the left side of the form, include all medications from the patient’s home medication list, which will come from the patient database. Put each medication on a separate line and include the dose, frequency, and route for each.

On the right side of the form, place the information (e.g., dose, frequency, and route) from the physician/prescriber order sheet. Place a Y if all of the medication elements match (i.e., are reconciled) or an N if they don’t match (i.e., are not reconciled).

At the bottom of the form, tally the number of reconciled and nonreconciled medications on the chart. Then calculate the percentage of nonreconciled medications and place this amount on the form. Repeat the process for all of the patients’ charts you have selected.

**Ongoing chart audits**

As you implement your medication reconciliation process, conduct monthly audits on a sampling of patient charts from the pilot unit. Select the charts at random—doing so will give you a much better picture of your medication reconciliation compliance than hand-picking charts on which you know reconciliation has been attempted.

This pilot-unit chart audit will provide you with the degree of compliance and success with the medication reconciliation initiative on the pilot unit. Its findings may influence your decision about when to roll out the process onto your next unit—as your pilot units compliance increases, move on to another units.

The pilot unit audit also provides the opportunity for you to assess the understanding of the staff nurses who were educated in the process and to educate individuals based on what you find in reviewing the charts.

As the number of patients undergoing the process of medication reconciliation increases, performing a monthly audit on all charts becomes less feasible. Therefore, some facilities that achieve compliance with medication reconciliation proceed to a monthly retrospective and random sample audit of 20 closed records.

**Enhancing your data collection**

Also collect other data as you measure your process’ effectiveness. For example, in addition to using the individual forms to collect medication reconciliation data, some hospitals have taken the opportunity to identify and evaluate the following:

- Reliance on/reliability of different sources of medication information
- Relative risks associated with each patient transfer point
- Reliability of medication allergy information
- Availability of information about last dose taken
- Noncompliance factored into home dosages
- Compliance with using only acceptable abbreviations

Medication reconciliation does not occur in a vacuum—many of your ongoing improvement efforts can be linked to it.

Some hospitals have made medication reconciliation into a performance improvement initiative to comply with two JCAHO requirements at once. Those hospitals have also conducted a failure modes and effects analysis on medication reconciliation.

Also consider making medication reconciliation a part of your staff competency plan.

**Presentation of findings**

Make medication reconciliation the buzzword at your facility. Collecting data can help you do so, especially if you present them during staff and management meetings and to your leaders and board.

For presentations, turn your data into easy-to-read charts or graphs. Microsoft Excel’s help function can walk you through the steps of creating such visual presentations.
### Sample individual patient data collection chart

<table>
<thead>
<tr>
<th>Review period:</th>
<th>Reviewer initials:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Comments on data sources, omissions, variances, evidence of missing information at transfer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Notes</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Do all medication reconciliation entries matter?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Patient #:</th>
</tr>
</thead>
<tbody>
<tr>
<td><em><strong>-</strong></em> patients for each review period</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Info from MD/prescriber order</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Date</th>
<th>Route</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Drug</th>
<th>Info from home medication list (if different from initialed in pharmacy notes)</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Reconciliation Medications</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Assessment</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>List All Medications in Charted (\text{and}) Prescribed</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Drug</th>
<th>Date</th>
<th>Route</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Summary statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total (\text{med.})</td>
</tr>
<tr>
<td>Percent uncorrected</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Optional summary statistics</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
</table>

Use one form for each patient; you may need to use several copies for some patients if on > 2 meds.

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NOTES
When calculating summary statistics, note that the total number of medications includes the number from the home medication list and any new medications ordered.

OPTIONAL RISK ASSESSMENT EVALUATION
Some hospitals have used the chart abstraction exercise to identify/evaluate the following:
1. Reliance on, reliability of different sources of medication information
2. Relative risks associated with each patient transfer point
3. Reliability of medication allergy information
4. Availability of information on "last dose taken"
5. Noncompliance factored into home dosages

This data collection form can be modified to collect this information as desired.

Data sources key
Codes to use in abbreviating source of home medication information: Intake history=1, Medication list provided at admission=2, Patient=3, Family/significant other=4, pre-op/pre-admission work-up=5, clinic/PCP report=6, retail pharmacy=7

For example: a) tabulate % of patients arriving at hospital with a medication list
b) for variances detected, attempt to identify reliability of different sources
c) ordering MD omits home med, patient/family provided inaccurate information, etc.

Timing of errors key
Codes that may be used to identify timing of medication errors
Errors at admission=A, Errors during transfer=T, Errors at discharge=D, Errors not attributable to patient transfer=U

Are the allergies listed correctly on admission orders?
Are the allergies listed correctly to subsequent transfer orders?
Were any medications ordered which the patient was allergic?
If medication allergies were detected during the hospitalization, was allergy info updated?
Is information on medication allergies consistent (history matches MAR, etc)

#, % of medications with time “last taken” identified
#, % of medications with information on patient compliance

 Accreditation news
JCAHO revises medication labeling expectations

Staff preparing medications in the perioperative and other procedural settings will no longer have to initial and date the medication label, according to changes that the JCAHO announced on January 11.

The commission revised the implementation expectations for National Patient Safety Goal #3D, which requires organizations to label medications and containers on and off of the sterile field in perioperative and other settings to make them more consistent with the medication management chapter requirements, according to the December/January This Month at the Joint Commission e-newsletter.

Neither the initialing nor the dating expectations are required under standard MM.4.30, which governs medication labeling.

Following are the new implementation expectations for the goal:

- Labels include the drug name, strength, amount (if not evident from the container), expiration date if not used within 24 hours, and expiration time if less than 24 hours
- Two qualified individuals must verify labels visually and verbally when the person preparing the medication is not the same one administering the medication
- Staff should label all medications and containers, even if only one medication is being used in the procedure, according to the JCAHO.
- Staff should label one medication at a time to eliminate confusion.
- Medication containers include syringes, medicine cups, and basins, according to the JCAHO.
- If the same staff member draws up the medication and administers it immediately, no label is required, according to a JCAHO frequently asked question posted in August 2005.