



Montana Board of Pharmacy

Published to promote compliance of pharmacy and drug law

PO Box 200513 • 301 S Park Ave, 4th Floor • Helena, MT 59620-0513

Farewell from the Executive Director

Ronald J. Klein, RPh

I am taking this opportunity to let everyone in the Montana pharmacy community know that I have resigned as executive director of the Montana Board of Pharmacy effective October 12, 2012.

I have enjoyed my tenure here in Montana as executive director for the past five years. It has been a pleasure to work with the many Board members, members of the association, and numerous other individuals. Together we have accomplished a great deal over the past five years: legislative passage of the Prescription Drug Registry, and the rules to implement it; numerous rules revisions; the establishment of rules for limited service pharmacies; the establishment of clinical pharmacist practitioners; the addition of a second pharmacy inspector; and several other programs.

I will miss my many colleagues and associations here in Montana as I look forward to the new challenges presented by my new position as executive officer of the Vermont Board of Pharmacy. I appreciate the support and encouragement from you.

Thank you to all for this opportunity to work with you. It has been a true pleasure and a wonderful experience.

Medication Reconciliation for Hospital Discharge

Nicolle Phillips, PharmD Candidate, Montana Board of Pharmacy, Administrative Advanced Pharmacy Practice Experience

Medication reconciliation is an important aspect of hospital discharge that has the possibility to make a significant impact with regard to patient safety and improved clinical outcomes.^{1,2} Medication reconciliation, with regard to hospital discharge, is the process of verifying patient medication lists at the time of transition from the hospital to an outpatient setting. This process makes it clear which medications have been added, discontinued, or altered since the time of admission. This process involves knowing a patient's previous medications and medical history, knowing the details of the hospital stay, and being able to evaluate which medications will need to be continued upon discharge. This information as well as subsequent follow-up needs to be effectively communicated to the patient/caregivers to ensure optimal care and a lesser chance of readmission.^{1,2}

As mentioned before, compiling an accurate medication list at discharge requires multiple steps.^{1,2} The first is the ability to acquire an accurate list of medications that were being taken just prior to hospitalization, and keeping an accurate list of what medications are being taken at the time of discharge. The second step is understanding why changes were made to current medication regimens, or why medications were added. A simple example of a change could be a different medication in the same drug class. It would be important to know if this change was made for a therapeutic reason and should remain the same on discharge, or if this was a formulary therapeutic substitution in which case it could return to what it was prior to the hospitalization. More complicated changes could be new medications that were added due to a recently discovered disease state, or short-term use medications used as therapy only during the hospital stay.^{1,2}

Medication reconciliation has the ability to reduce inconsistencies from inpatient to outpatient treatment and decrease the chance for adverse drug events. Studies have shown that discrepancies in medication use occurs about one-third of the time during any transition in care.^{1,2} This includes on admission, transfer to another unit, and at discharge.^{1,2}

The importance of medication reconciliation is easily recognized; however, implementing point of care transition protocols does not come without its issues.^{1,2} For example, should a comprehensive review be done for every patient or for only those considered high risk for complications or readmission? Who should ultimately be responsible for performing the medication reconciliation (nurse, pharmacist, or physician)? How can hospital resources be used effectively and efficiently for this process, and is reimbursement for this task possible? What is the best way to keep caregivers and primary care providers in the loop with current changes?^{1,2}

Some strategies that have been proposed include delegating the entire process to pharmacists, or integrating a medication reconciliation format to the order entry process or the electronic medical record.^{1,2} Medication errors are a common form of error, and many of the adverse events caused by these errors are preventable. Some of the medication errors seen on discharge include patients being sent home without the necessary prescriptions, patients receiving duplicate therapy for the same indication, new medications being prescribed causing drug interactions to

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AHRQ Toolset Can Assist Pharmacies Using e-Prescribing

A toolset released by the Agency for Healthcare Research and Quality (AHRQ) can assist independent pharmacies with the implementation of e-prescribing and may also provide useful guidance to those pharmacies already using e-prescribing. The toolset for independent pharmacies consists of seven chapters that provide guidance on topics ranging from planning the implementation process and launching the system, to troubleshooting common problems and moving into more advanced pharmacy services, states AHRQ. Flyers for use in communicating the launch to patients, templates for communicating with providers about the launch, tools for assessing pharmacy workflow, and a spreadsheet to determine return-on-investment, among other tools, are also available to pharmacies. The toolset can be downloaded from the AHRQ Web site at http://healthit.ahrq.gov/portal/server.pt/community/health_it_tools_and_resources/919/a_toolset_for_e-prescribing_implementation_in_independent_pharmacies/30595.

FDA Database Provides Information on Pediatric Medications

A Food and Drug Administration (FDA) database provides information on pediatric medications, making it easier for both health care providers and caregivers to locate this information. The Pediatric Labeling Information Database is a one-stop resource, where providers and caregivers can search for information by the product's commercial or chemical name, or by the condition for which it was studied. The database was developed by FDA's Office of Pediatric Therapeutics (OPT), in collaboration with the Center for Drug Evaluation and Research. The OPT also provides a Safety Reporting page with information on products that have been tied to safety problems that specifically relate to children. Additional information and a link to the database is available in the Consumer Updates section of the FDA Web site at www.fda.gov/ForConsumers/ConsumerUpdates/ucm305040.htm.

Inattentional Blindness: What Captures Your Attention?



This column was prepared by the Institute for Safe Medication Practices (ISMP). ISMP is an independent nonprofit agency that analyzes medication errors, near misses, and potentially hazardous conditions as reported by pharmacists and other

practitioners. ISMP then makes appropriate contacts with companies and regulators, gathers expert opinion about prevention measures, and publishes its recommendations. To read about the risk reduction strategies that you can put into practice today, subscribe to ISMP Medication Safety Alert!® Community/Ambulatory Care Edition by visiting www.ismp.org. ISMP is a federally certified patient safety organization, providing legal protection and confidentiality for submitted patient safety data and error reports. ISMP is also an FDA MedWatch partner. Call 1-800/FAIL-SAF(E) to report medication errors to the ISMP Medication Errors Reporting Program or report online at www.ismp.org. ISMP address: 200 Lakeside Dr, Suite 200, Horsham, PA 19044. Phone: 215/947-7797. E-mail: ismpinfo@ismp.org.

A pharmacist enters a prescription for methotrexate daily into the pharmacy computer. A dose warning appears on the screen. The pharmacist reads the warning, bypasses it, and dispenses the medication as entered. The patient receives an overdose of the medication and dies.

This error, and many more, have happened because the person performing the task fails to see what should have been plainly visible, and later, they cannot explain the lapse.¹ People involved in these errors have been labeled as careless and negligent. But these types of accidents are common – even with intelligent, vigilant, and attentive people. The cause is usually rooted in inattentional blindness.¹

Accidents happen when attention mistakenly filters away important information and the brain fills in the gaps with what is aptly referred to as a “grand illusion.”² Thus, in the example above, the brain of the pharmacist filtered out important information on the computer screen, and filled in the gaps with erroneous information that led him to believe he had read the warning appropriately.

Inattentional blindness is more likely to occur if part of your attention is diverted to secondary tasks, like answering the phone while entering prescriptions into the computer, or even thinking about your dinner plans while transcribing an order.

Low workload causes boredom and reduces the mental attention given to tasks, as does carrying out highly practiced tasks, such as counting out medication. We spend a large majority of our waking life functioning with the equivalent of an automatic pilot, with occasional conscious checks to ensure tasks are being carried out properly. This makes us particularly prone to inattentional blindness.

Our past experiences also teach us what is relevant. Errors occur when new or unusual circumstances happen in highly familiar situations. The pharmacist who did not notice important information on a computer warning had rarely encountered a clinically significant computer alert. The pharmacist had subconsciously learned that there was nothing important to see when reading alerts. Nothing had ever happened, so attention was automatically filtered away from the details to conserve mental processing.

Conspicuity is the degree to which an object or piece of information “jumps out” and captures your attention. The best way to achieve this effect is through use of contrast, color, or shape to call attention to differences in packaging or text.

It is difficult to reduce the risk of inattentional blindness, as it is an involuntary and unnoticed consequence of our adaptive ability to defend against information overload. Error-reduction strategies such as education, training, and rules are of little value. Instead, efforts should center on increasing conspicuity of critical information, and decreasing diversions of attention and secondary tasks when carrying out complex tasks.

1. Green M. “Inattentional blindness” and conspicuity. *Visual Expert*. 2004. Accessed at www.visualexpert.com/Resources/inattentional_blindness.html, March 1, 2012.

2. Angier N. Blind to change, even as it stares us in the face. *The New York Times*. April 1, 2008.

Know Your Dose Game Teaches Safe Acetaminophen Use

As part of the Know Your Dose campaign, the Acetaminophen Awareness Coalition has developed an interactive educational game to teach safe use of acetaminophen. The game not only answers some of the most common questions surrounding the safe use of acetaminophen, it gives an engaging face to the issue. The game, available on the

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Know Your Dose Web site at www.knowyourdose.org/game, invites consumers to follow three characters through a typical day of aches and pains while helping the characters learn how to take medicine that contains acetaminophen safely.

Contraception Products Sold Online With No Prescription Required, Endangering Public Health

Health care providers should help to educate patients about the risks of prescription contraceptive products marketed online as “no prescription” and “over-the-counter” products, pharmaceutical security researchers conclude. A study by these researchers found that Google searches returned results for prescription contraceptive products such as injections, oral contraceptives, and patches, as well as intrauterine devices (IUDs). All of these products were marketed as available without a prescription and researchers found that sellers provided links to YouTube videos with IUD instructions. The researchers also found that these products were being promoted on social media channels, including Facebook, Twitter, SlideShare, and Flickr. Researchers Bryan A. Liang, MD, JD, PhD, Tim K. Mackey, MAS, and Kimberly M. Lovett, MD, conclude that such online contraceptive sales represent patient safety risks and also suggest that policy makers should “employ legal strategies to address these systemic risks.” The study, “Suspect Online Sellers and Contraceptive Access,” is available in the May 25, 2012 issue of *Contraception*.

New FDA Drug Info Rounds Training Video

FDA Drug Info Rounds, a series of online training videos, provides important and timely drug information to practicing clinical and community pharmacists so they can help patients make better medication decisions. In the latest Drug Info Rounds video, available at www.fda.gov/Drugs/ResourcesForYou/HealthProfessionals/ucm313768.htm, pharmacists discuss the Accelerated Approval Program and how FDA helps make new, potentially lifesaving drugs available more quickly. Drug Info Rounds is developed with contributions from pharmacists in FDA’s Center for Drug Evaluation and Research, Office of Communications, and Division of Drug Information.

FDA Resources Help Raise Awareness About Health Fraud Scams

To help raise consumer awareness about health fraud scams, FDA provides numerous educational resources in the Health Fraud Scams section of its Web site. Educating consumers on how to avoid such scams, FDA videos present information on various types of fraudulent products such as fake diet, sexual enhancement, and body building products. Consumers can also access information about specific products that are the subject of FDA warning letters, recalls, public notifications, and safety alerts. FDA news releases related to health fraud are also accessible through this section of the Web site.

NABP Accepting Award Nominations for 109th Annual Meeting

The National Association of Boards of Pharmacy® (NABP®) is currently accepting nominations for the Association’s 2013 awards that will be presented during the 109th Annual Meeting, to be held May 18-21, 2013, at the Hyatt Regency St Louis at the Arch in St Louis, MO.

Nominations are currently being accepted for the following awards: 2013 Lester E. Hosto Distinguished Service Award (DSA), 2013 NABP Honorary President, 2013 Fred T. Mahaffey Award, and 2013 John F. Atkinson Service Award.

Nominations for these awards must be received at NABP Headquarters no later than December 31, 2012. New this year, individuals wanting to submit a nomination will be asked to fill out and complete a nomination form, which may be accessed by visiting the Meetings section on the NABP Web site at www.nabp.net/meetings. Criteria for award nominees will also be posted to the Web site. Nomination forms should be sent to the NABP Executive Director/Secretary Carmen A. Catizone at NABP Headquarters, 1600 Feehanville Dr, Mount Prospect, IL 60056. Directions for electronic submission will be available on the online form. The NABP Executive Committee will review the nominations and select the award recipients.

For more information, please contact the NABP Executive Office via e-mail at exec-office@nabp.net.

NABP Looking for Exam and Assessment Item Writers

NABP is seeking individuals to serve as item writers for the North American Pharmacist Licensure Examination®, the Multistate Pharmacy Jurisprudence Examination®, the Foreign Pharmacy Graduate Equivalency Examination®, the Pharmacy Curriculum Outcomes Assessment®, and the Pharmacist Assessment for Remediation EvaluationSM. Pharmacists in all areas of practice, and faculty from schools and colleges of pharmacy are encouraged to apply. Interested individuals should e-mail, fax, or mail a letter of interest indicating their current practice/educational setting, specialties/certifications, and years of experience, along with a résumé or curriculum vitae:

- ◆ via e-mail at exec-office@nabp.net;
- ◆ via fax at 847/391-4502; or
- ◆ via mail to NABP Executive Director/Secretary Carmen A. Catizone at 1600 Feehanville Drive, Mount Prospect, IL 60056.

Please note, applications are accepted on a continuous basis and kept on file for a period of five years. For more information about item writing, contact NABP at custserv@nabp.net. Additional information may also be found in the August 2012 *NABP Newsletter*.



Pharmacists & Technicians:
Don't Miss Out on Valuable CPE Credit.
Set Up Your NABP e-Profile and Register for CPE Monitor Today!

CPE Monitor™ integration is underway. Soon all Accreditation Council for Pharmacy Education (ACPE)-accredited providers will require you to submit your NABP e-Profile ID, assigned when you set up your NABP e-Profile, along with your date of birth (MMDD), in order to obtain continuing pharmacy education (CPE) credit for any ACPE-accredited activity. Many have already begun to do so.

Visit www.MyCPEmonitor.net to set up your e-Profile and register for CPE Monitor and avoid possible delays in your CPE reporting.

CPE Monitor is a national collaborative service from NABP, ACPE, and ACPE providers that will allow licensees to track their completed CPE credit electronically.

current medications, improper therapy when considering all of the patients' disease states, and poor follow-up and monitoring after discharge for medications given in the hospital.^{1,2}

One study published in the *Archives of Internal Medicine* in 2009 looked at the effects of pharmacist intervention on medication discrepancies when discharging from the hospital and how these interventions affected hospital readmission, emergency room visits, and adverse events.³ The study was a prospective, alternating month quasi-experimental design that compared outcomes of the 358 patients that received pharmacist intervention to the 366 who did not. The patients included in this study were considered high risk for medication-related problems as defined by having a high number of medications, problems with the management of medications, or many medication changes made during hospitalization. All of the patients included in this study were discharged to home. Pharmacist intervention included therapy assessment, medication reconciliation, patient education, evaluating adherence, and a phone call follow-up. Emergency department visits made within 72 hours of discharge, hospital readmission at 14 and 30 days, and medication discrepancies at the time of discharge were recorded. At discharge, medication discrepancies were found in 33.5% of the intervention group and these were resolved before discharge. For the non-intervention group medication discrepancies were found 59.6% of the time and had not been corrected before discharge. However, despite the corrections made in the intervention group there was no statistically significant difference between the intervention and non-intervention group for 14-day readmissions (12.6% vs 11.5%; P=0.65), 30-day readmissions (22.1% vs 18%; P=0.17), or emergency room visits (2.8% vs 2.2%; P=0.60). So even though this study did improve the quality of care at discharge, there was no difference in the use of health care resources after discharge.³

A July 2012 review article published in the *Archives of Internal Medicine* evaluated multiple studies to determine effective practices for hospital medication reconciliation.⁴ Twenty-six studies were pulled from MEDLINE with publishing dates ranging from 1966 to February of this year. The studies were grouped into pharmacist related intervention, information technology related intervention, or interventions completed in any other form. Of the 26 studies included, 15 were based on pharmacist intervention, six from information technology, and five were based on other topics. Every study included compared their intervention style to no intervention given. Consistency was seen with an improvement in medication discrepancies (17 of 17 studies), a decrease in possible adverse drug events (five of six studies), and a decrease in actual adverse drug events (two of two studies). However a decrease in the use of health care resources after discharge was not seen throughout all the studies (two of eight studies). This review identified the need of pharmacist involvement and the screening of high risk patients to be key aspects of a successful intervention. However, once again no difference was observed with regard to readmission rates.⁴

In 2005 the Joint Commission named medication reconciliation as the National Patient Safety Goal No. 8.^{5,6} These goals help accredited organizations address areas of concern that could affect patient safety. Accredited organizations were going to be required to compile accurate and complete medication lists on admission and be able to transfer current medications to

the next provider when care is transferred. However, this goal was suspended on on-site accreditation surveys between 2009 and 2011 due to the difficulty of implementing protocols and an absence of procedures proven to accomplish these goals. In 2011, the Joint Commission named medication reconciliation as the National Patient Safety Goal No. 3. This new goal is less rigid than the 2005 version and focuses on critical risk points in the reconciliation process and is set to improve the safety of medication use by maintaining and communicating accurate patient medication information.^{5,6}

Research involving medication reconciliation has been increasing more and higher quality studies need to be done to determine best practices for minimizing the risk associated with discrepancies caused from transitions in care.^{1,2,3,4,5,6} The role of the pharmacist in this process is essential in ensuring the fewest medication drug events occur. Both the clinical knowledge and the availability of the pharmacist in both the inpatient and outpatient settings make them an invaluable resource to both the hospital staff and the patients. While the current studies show an impact in reducing medication discrepancies at discharge and at other transition points in care, extending this to reduced readmission rates is vital to maximize patient outcomes while minimizing overall health care costs.^{1,2,3,4,5,6}

References

1. Agency for Healthcare Research and Quality: Patient Safety Network. Available at www.psnnet.ahrq.gov. Accessed September 3, 2012.
2. Alper E, O'Malley TA, Greenwald J. Hospital Discharge July 2012. Available at www.uptodate.com/contents/hospital-discharge. Accessed September 3, 2012.
3. Walker PC, Bernstein SJ, MD, MPH; Tucker-Jones JN, et al. Impact of a Pharmacist-Facilitated Hospital Discharge Program: A Quasi-Experimental Study. *Arch Intern Med* 2009;169(21):2003-2010.
4. Mueller SK, MD; Sponsler KC, Kripalani S, et al. Hospital-Based Medication Reconciliation Practices: A Systematic Review. *Arch Intern Med* 2012;172(14):1057-1069.
5. American Pharmacists Association, American Society of Health-System Pharmacists. Improving care transitions: optimizing medication reconciliation. *J Am Pharm Assoc* 2012;52:e43-e52.
6. The Joint Commission. Available at www.jointcommission.org. National Patient Safety Goals. Accessed September 3, 2012.