Oregon Board of Pharmacy
Position Statement

Optimizing Patient Safety and Reducing Medication Errors in Oregon

ADOPTED: October 15, 2008

Beginning in 2000, in response to the number of medication errors and medication distribution issues, state boards of pharmacy across the country began to convene committees and work groups to research and report back to the boards about ways to reduce medication errors. In response to the Oregon Board of Pharmacy's interest in promoting an awareness of and ultimately a decrease in medication errors, the Board convened its Medication Error Reduction – Patient Safety Research Council.

The charge of Oregon's 12-member multi-disciplinary Research Council was to investigate procedures designed to reduce medication errors and evaluate the role the Board currently plays in supporting medication error reduction efforts. The Research Council was also asked to recommend measures the Board could take to improve patient safety through medication error reduction programs in the state. The Research Council has developed a document that reflects optimum standards for providing patient care in today's pharmacies. While the document is not intended to be a comprehensive list of goals that are completely achievable on a continual basis, it does suggest a number of specific procedures that can be implemented in pharmacy practice settings in an effort to enhance existing quality improvement programs. This list is **not** exclusive of other improvements and may be supplemented by the Board from time to time.

Optimizing Patient Safety and Reducing Medication Errors, the 23-point document developed by the Research Council, was based on a review of current literature and work done in other states. The recommendations have been modified and edited specifically for use in Oregon pharmacies. The Board would like to acknowledge the work done by the National Association of Boards of Pharmacy's 2007-08 Task Force on Continuous Quality Improvement, Peer Review, and Inspecting for Patient Safety, the Massachusetts Board of Registration in Pharmacy, and The Institute for Safe Medication Practices.

It is the Board's position that all pharmacies and pharmacists should review these recommendations as a high priority and should consider implementation of those measures that are appropriate to the particular pharmacy setting. The Board believes that adoption and institution of these practices will lead to optimal patient safety through enhanced pharmacy medication delivery systems, improved performance generally and, ultimately, a significant reduction in medication errors.

OREGON BOARD OF PHARMACY
Medication Error Reduction Research Council

Recommendations for Optimizing Patient Safety and Reducing Medication Errors

1. Develop policies and procedures for providing complete incident reports submitted to designated entities for each Quality Related Event (QRE) occurrence. A QRE is defined as any departure from the appropriate dispensing of a prescribed medication that is not corrected prior to the delivery of the medication.

The term "quality-related event" includes variations from the specifications of a prescription, such as wrong drug, strength, directions, and wrong dosage form. The term also includes packaging or warnings that fail to meet recognized standards, the delivery of a medication to the wrong patient, and failure to detect and appropriately manage a significant actual or potential problem with a patient's drug therapy.

Recommended Actions:

- Create a system for reporting medication errors to the Oregon Patient Safety Commission/ISMP to promote analysis of the occurrence of the QRE and prevent similar events from recurring.
- Promote a non-punitive atmosphere for reporting of medication errors.
- Voluntarily report QRE to the Oregon Patient Safety Commission.

2. Institute a system to review incident reports quarterly at the pharmacy. Perform root cause analysis and include information from such review in the quality improvement programs. Reviewers should include pharmacists, pharmacy technicians, and appropriate management personnel.

Recommended Actions:

- Evaluate the QRE's that occurred in the pharmacy on a regular basis, summarize them quarterly, spot trends, and identify the **root cause** of the QRE's.
- Implement improvements/interventions based on the information gathered as part of the root cause analysis and create a scalable report format.
- Publicize changes to pharmacy staff.

3. Develop and implement an effective work flow plan that is evaluated periodically to maximize effective use of space, equipment, technology, and staff.

Recommended Actions:

- Develop policies and procedures to ensure that the appropriate individuals are completing appropriate tasks.
- Consider the use of automated devices and technology to aid staff.

- Explore ways to optimize patient care services, i.e. providing separate area for confidentiality when counseling patients.
- Evaluate the workflow in the pharmacy to determine optimum dispensing area, or consider restructuring to maximize efficiency and safety.

4. Routinely poll customers regarding quality of care and satisfaction with service as part of the counseling routine.

Recommended Actions:

- Develop a customer-focused survey to identify areas of improvement.
- Review the findings of the survey with pharmacy staff to develop solutions to improve patient satisfaction.
- Include patient-focused feedback opportunities during counseling.

5. Develop and implement a comprehensive technician-training program that requires
pharmacy technician trainees to demonstrate competence functioning as pharmacy technicians and qualify for registration as technicians.

Recommended Actions:

- Include a checklist and file a copy with policies and procedures documentation.
- Require technicians registered by the Board to meet and maintain certification requirements.
- Provide Continuing Education (CE) opportunities for pharmacy technicians.
- Require competency in the technician's area of work, and review annually.

6. Implement a policy requiring that counseling be offered to every patient receiving a prescription, regardless of whether the prescription is new or a refill. During patient counseling, the pharmacist should verify that the patient understands the purpose, proper use and expected outcomes of their drug therapy. Counseling should also include information as to the safe and accurate use of prescribed medication(s). Educating patients about the safe and effective use of medications promotes patient involvement in their own care and is an important component of any medication error reduction strategy. Patient counseling may have a beneficial impact by reducing the incidence of quality-related events.

Recommended Actions:

- Dispense or recommend proper measuring device (e.g. oral dosing spoon) with all liquid medications. Instruct patients or caregivers on how to use the measuring device.
- Provide written patient drug information materials with all new outpatient prescriptions dispensed.
- Develop standard counseling procedures that include checks for the following:
    - Right patient
    - Right drug
    - Right drug for this patient

- Appropriate dosing schedule
- Appropriate route of administration
- Correct route of administration for this patient
- Verification that the patient understands why they are taking drug
- Verification that the patient understands how to use the drug

7. Develop policies and procedures that insure patient profiles are routinely updated for drug allergies, *(patient weight-based dosed drugs),* adverse reactions, over-the-counter medication usage, alternative medication/herbal remedy usage, and health related changes such as pregnancy, new diagnosis or change in health status.

Recommended Actions:

- Develop a policy that requires allergy information be updated when filling or refilling a prescription.
- Require all new prescriptions include allergy information.
- Develop a policy of updating patient's weight.
- Ask patients about their use of OTC medications and herbal remedies, and document responses in the patient profile.
- Ask patients about any changes in health status.
- Update patient profiles as part of the regular dispensing process.

8. Utilize available age and weight adjusted dosing guidelines when appropriate.

Recommended Actions:

- Verify pediatric dosing to ensure proper dose.
- Develop specific pediatric and geriatric guidelines for age and weight adjusted dosing.
- Acquire or utilize reference materials, textbooks and /or computer software that directly addresses pediatric and geriatric dosing.
- When appropriate and necessary, verify that the doses are appropriate for the patient.

9. Provide pharmacies access to appropriate reference materials and to the Oregon Board of Pharmacy website.

Recommended Actions:

- Provide Internet access to pharmacists to research clinical information.
- Establish a clinical department to serve as a resource for dispensing pharmacists.
- In addition to required reference texts, provide additional reference materials, such as computer software programs relevant to the particular practice setting.
- Insure that all pharmacists have access to the Oregon Board of Pharmacy website.

10. Monitor patient therapy for compliance. When necessary and appropriate, question adherence to prescriber directions when a medication intended for chronic use is filled outside of expected timeframes.

Recommended Actions:

- Monitor prescription drug usage among chronic disease state patients to ensure compliance.
- Ask the patient if a drug therapy change has occurred and if needed, contact the prescriber to obtain updated information.
- Ask patients how they are feeling, paying attention to improvements in the patient's condition as well as adverse effects.

11. Develop written policies and procedures to assure outdated stock or stock with an expiration date that does not allow sufficient time for dispensing by pharmacy or use by patient is segregated from other stock and either prepared to return to manufacturer or destroyed and documented.

Recommended Actions:

- Periodically inspect the expiration date on medication stock bottles.
- Periodically inspect the expiration date on medication containers in the refrigerator or freezer.
- Identify short dated items with a colored label, indicating expiration date.
- Check expiration dates on all products prior to completing the filling and dispensing of medication.

12. Adopt written policies and procedures pertaining to handling of filled prescription orders waiting for pick-up by patient or patient representative.

Recommended Actions:

- Verify the patient's name, address, and date of birth when prescription orders are picked up.

13. Adopt written policies and procedures relating to return of unclaimed prescriptions to stock.

Recommended Actions:

- Adopt a policy that only a pharmacist may return medication to the stock with appropriate checks.

14. Develop procedures to ensure drug recalls are acted upon in a timely manner.

Recommended Actions:

- Adopt procedure that personnel receiving recall notice are required to immediately bring recall notification to the pharmacist's attention.

15. Explore the reasons for out-of-stock items.

Recommended Actions:

- Collect data and analyze trends related to out-of-stock items.
- Utilize a computer program to determine inventory employing maximum/minimum strategies.
- Consider auto replacement technology.
- Refer to the FDA shortage list

16. Adopt a policy allowing for continuation of therapy for out of stock or unavailable items.

Recommended Actions:

- Inform patient or caregiver that the medication is out of stock or unavailable.
- If known, inform patient or caregiver when the medication would be available.
- Offer to make arrangements for the patient or caregiver to pick up the medication at another location.
- If the availability form manufacturer will result in interruption of therapy, offer to call the physician to discuss a change in therapy.

17. Adopt a policy allowing pharmacists an appropriate lunch break when they work six or more hours in a day.

Recommended Actions:

- Develop policies and procedures regarding the operation of the pharmacy during the temporary absence of the pharmacist for breaks and meal periods.
- Develop policies and procedures detailing the authorized duties of ancillary staff during temporary absences of the pharmacist; the pharmacist's responsibilities for checking all work performed by ancillary staff; and the pharmacist's responsibility for maintaining the security of the pharmacy.

18. Develop policies and procedures regarding proper staffing.

Recommended Actions:

- Regularly review staffing requirements to ensure a safe environment.
- Ensure that available and competent staff is available during periods of high activity.

19. Utilize interpreters/services as necessary.

Recommended Actions:

- Employ individuals who speak a second language
- Engage an interpreter service (such as AT&T)
- Develop Policies for dealing with language barriers.

20. Develop policies and procedures, which continually improve pharmacy practice by incorporating strategies to optimize therapeutic outcomes.

Recommended Actions:

- Consider disease state management programs and certification programs to enhance delivery of pharmaceutical care.
- Initiate a program to monitor HbA1C levels of diabetic patients.
- Counsel patients with diabetes regarding the proper use of glucose monitoring equipment, insulin, syringes, injection techniques, and insulin pens.
- Implement a program to encourage high-risk patients to have cholesterol levels evaluated.
- Encourage patients with asthma to demonstrate proper use of Metered Dose Inhalers, spacers and peak-flow meters.
- Institute and promote procedures to determine if patients utilizing chronic care medications are adhering to prescribed medical regimens.
- Develop a plan for the acquisition of adherence software within an acceptable time frame.
- Provide counseling and conduct activities to help increase immunization rates for patients at high risk for pneumonia and influenza.

21. Develop policies and procedures, which continually ensure the integrity of Biologicals and Pharmaceuticals.

Recommended Actions:

- Require maintaining a daily temperature log on file, and use of an automatically calibrating thermometer on all refrigeration units storing any biologicals or pharmaceuticals.

22. Develop and implement written policies and procedures that enhance anti-counterfeiting measures regarding the receipt, storage and security of controlled substances.

Recommended Actions:

- Visually examine all deliveries promptly on receipt to identify contents and determine if any contaminated, damaged, misbranded, expired or suspected counterfeit drugs are included in the shipment.
- Quarantine any drugs or devices found to be unacceptable for further examination and determination.
- Inspect medication during final verification to assure product accuracy and integrity.
- Request wholesalers to certify that all medications delivered to the pharmacy, not accompanied by a pedigree, are purchased directly from the manufacturer.
- Report suspected counterfeit medications to MedWatch (the FDA Safety Information and Adverse Event Reporting Program), the Board and appropriate law enforcement authorities within three business days.
- Maintain records of counterfeit reports from manufacturers and other sources for a minimum of a three year period.

- Consult NABP's "National Specified List of Susceptible Drug Products" available for reference at http://www.nabp.net/ .
- Educate consumers about the risks of counterfeit medications.
- Encourage consumers to promptly consult with health care professionals if they suspect that their medication is counterfeit.
- Remind consumers to be aware of noticeable differences in their medications or packaging and the occurrence of any adverse events.
- Alert consumers to the important role pharmacists play in identifying, reporting and responding to counterfeit drug events.
- Advise consumers to make online medication purchases from pharmacies that have obtained the Verified Internet Pharmacy Practice Site (VIPPS) seal from the National Association of Board of Pharmacy (NABP).

23. Develop and implement written policies and procedures regarding the identification of medication when requested by a consumer/patient or medical professional. Resources for Non-Emergency Product Identification Requests

[If emergency: call poison control center at 1-800-222-1222]

• **Recommended Actions:**

1. When a prescription is associated with the medication to be identified:
a. Verify the prescription content with the original copy of the prescription dispensed making sure that the markings on the unidentified medication match the prescription medication dispensed and identified from the original prescription.
b. If unidentified medication can not be verified then refer to #2.

2. Identification of a medication with manufacturer's code and/or NDC code or other markings on the product:
a. Utilize available resources and references (see Attachment A) to identify medication by manufacturers' identification codes, NDC code, or drug name.
b. If medication cannot be identified then refer to #3.

3. Identification of a medication that has no markings and/or is a formulation (liquid) that is not positively identifiable:
a. Call the poison control center and describe medication and indication for use if known. (EMERGENCY SITUATION)
b. In non-emergency situations, obtain services for laboratory product analysis, example: http://www.bostonanalytical.com or http://www.bio-concept.com

Attachment A

Online resources for identifying prescription and non-prescription drugs:

• http://www.drugdigest.org click on to Drug library then pill images. *
• http://www.drugs.com/ identifies by, name, codes and/or description. *
• http://www.rxlist.com/interact.htm identifies by code, drug name, or Manufacturer. *
• http://www.drugs.com/manufacturers.html links to Medication manufacturers. *
• *PDRhealth*, The Drug Information Directory. *
• Prescription drugs http://www.pdrhealth.com/drug_info/rxdrugprofiles/alphaindexa.shtml *
• OTC drugs http://www.pdrhealth.com/drug_info/otcdrugprofiles/alphaindexa.shtml *

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• www.mcphs.edu/altmed Center for Complementary and Alternative Pharmacotherapy. *
• http://www.micromedex.com/ Micromedex
• http://www.cp.gsm.com/ *Clinical Pharmacology* Product Identification
• http://www.identadrug.com/ by Pharmacist Newsletter

* Information accessed without charge

Books for identifying drugs may be available at your local public or university library:

• *Ident-A-Drug Reference*; identifies drugs by the numbers, letters and images.
• *Mosby's DrugConsul*
• *Physicians' Desk Reference (PDR)*
• *Facts and Comparisons*