Reducing the risk of serious medication errors in community pharmacy practice

Eastern Medicaid Pharmacy Administrators Association (EMPAA)

November 1, 2017
Newport, Rhode Island

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President, Institute for Safe Medication Practices
ISMP National Medication Errors Reporting Program

Medication Error Reporting Program
Vaccine Error Reporting Program
Consumer Error Reporting Program
ISMP National Medication Errors Reporting Program (MERP)

- Reports from practitioners and consumers regarding medication errors or hazardous conditions
- Focus is on narrative and 2-way communication; not designed as a large database that captures incident reports
- Started in March 1975 with monthly “Medication Error Reports” column in Hospital Pharmacy
- USP-ISMP Medication Errors Reporting Program established in 1991
- ISMP regained full operation in 2008
  - Consumer MERP established in 2008
  - Vaccine Error Reporting program (VERP) established in 2012
Where does ISMP get its information?

- ISMP MERP/VERP
- Consumer MERP
- Practitioners
- PA-PSRS
- FDA MedWatch
- Other sources
- ISMP Canada
- ISMP Spain
- ISMP Brazil
- Practitioners
- Organizations
- Consumers
- Regulatory
- Industry
Medication Error Reporting System

- Early warning system
  - Issue nationwide hazard alerts and press releases
- Learning
  - Dissemination of information and tools
- Change
  - Product nomenclature, labeling, and packaging changes, device design, practice issues
- Standards and Guidelines
  - Advocates for national standards and guidelines
ISMP National Medication Errors Reporting Program (MERP)
ISMP Websites

www.ismp.org  www.medsafetyofficer.org  www.consumermedsafety.org
ISMP Newsletters

Long-Term Care Access Alert

As 50 U.S. insulin safety champions attack cut in Medicare payments, suppliers are working to provide the best possible care...

We asked experts to help us understand the impact of this important change in reimbursement on patients and providers.

Communicating changes in "sourcing center" is an important aspect of the ISMP effort to improve insulin safety. The ISMP has been...
Severe hyperglycemia in patients incorrectly using insulin pens at home

The Institute for Safe Medication Practices (ISMP) National Medication Errors Reporting Program (MERP) has received several reports of patients who failed to remove the inner cover of a standard insulin pen needle prior to attempting to administer the insulin. The latest event resulted in a fatality. A recently hospitalized patient with type 1 diabetes did not know to remove the standard needle cover from the insulin pen needle prior to administration. She was unaware that she was using the pen incorrectly and, thus, had not been receiving any of the insulin doses. The patient developed diabetic ketoacidosis and later died.

To protect staff from needlestick injuries and guard against the reuse of needles, many hospitals use insulin pen needles that automatically re-cover and lock the pen needle once injection has been completed and the needle has been withdrawn from the skin. Such products include NOVOFINE AUTOCOVER (Novo Nordisk) and BD AUTOHEALTH DUO. These safety needles are also recommended for some patients with manual dexterity limitations or if a caregiver is administering the injection to a patient.

With the NovoFire Autocover (Figure 1), safety needle not only holds the outer cover of the needle while it is attached to the insulin pen and then removes it; exposing a plastic needle shield that covers the needle. During administration, as the device is held against the skin and pressure is applied, the needle shield slides back to allow the skin to be punctured and the insulin to be injected once the close button is pressed. As the needle is removed from the skin after administration, the shield slides back over the needle. The needle is hidden throughout the process so the patient will never see it.

The Autocover safety needle system is different from standard insulin pen needles widely used by patients in the home, which do not employ an automatic needle shield. These standard needles are available from brand and generic manufacturers. Because standard pen needles and those with an automatic needle shield may look similar, patients may not be aware of the differences in preparation for administration. Both the automatic safety needle and standard needle systems have a larger outer protective cover that, when removed, exposes either a retractable needle shield (Figure 1) or a plain inner needle cover (Figure 2). The automatic safety needle shield is continued on page 2—NAN

The National Alert Network (NAN) is a coalition of members of the National Coordinating Council for Medication Error Reporting and Prevention (NCCMERP). The network, in cooperation with the Institute for Safe Medication Practices (ISMP) and the American Society of Health-System Pharmacists (ASHP), distributes NAN alerts to warn healthcare providers of the risk for medication errors that have caused or may cause serious harm or death. NCCMERP, ISMP, and ASHP encourage the sharing and reporting of medication errors both nationally and locally, so that lessons learned can be used to increase the safety of the medication user system.

The purpose of the Targeted Medication Safety Best Practices for Hospitals is to identify, inspire, and mobilize widespread, national adoption of consensus-based best practices for specific medication safety issues that continue to cause fatal and harmful errors in patients, despite repeated warnings in ISMP publications. Hospitals can focus their medication safety efforts over the next 2 years on these best practices, which are realistic and have been successfully adopted by numerous organizations. While targeted for the hospital-based setting, some best practices may be applicable to other healthcare settings. The Targeted Medication Safety Best Practices for Hospitals have been reviewed by an external expert advisory panel and approved by the ISMP Board of Trustees. Related issues of the ISMP Medication Safety Alert! are referenced after each best practice.


www.ismp.org

• Purpose: inspire widespread adoption of consensus-based best practices on specific error-related issues that continue to harm patients and/or cause death

• **Primary target areas:**
  – IV vincristine
  – Oral methotrexate
  – Patient weights in metric units
  – Neuromuscular blocking agents
  – High alert drug via smart pumps
  – Availability of antidotes and rescue agents

• Use of oral syringes
• Oral liquid dosing devices
• Glacial acetic acid
• Eliminate liter bags of sterile water
• Use of technology for IV admixture compounding
Using the high alert drug concept with prescription dispensing

• Focus safety efforts on high alert drugs

• Drugs that bear a heightened risk of causing significant patient harm when they are used in error. Although mistakes may or may not be more common with these drugs, the consequences of an error are clearly more devastating to patients

• Identify specific error problems – methotrexate, opioids, compounding errors, insulin issues, insulin pen needle issues, etc. (NAN Alert)

• Patient education checklist for high alert drugs
**ISMP List of High-Alert Medications in Community/Ambulatory Healthcare**

**High-alert medications** are drugs that bear a heightened risk of causing significant patient harm when they are used in error. Although mistakes may or may not be more common with these drugs, the consequences of an error are clearly more devastating to patients. We hope you will use this list to determine which medications require special safeguards to reduce the risk of errors and minimize harm.

<table>
<thead>
<tr>
<th>Classes/Categories of Medications</th>
<th>Specific Medications</th>
</tr>
</thead>
<tbody>
<tr>
<td>antiretroviral agents (e.g., efavirenz, lamivudine, raltegravir, ritonavir, combination antiretroviral products)</td>
<td>carBAZepine</td>
</tr>
<tr>
<td>chemotherapy agents, oral (excluding hormonal agents) (e.g., cyclophosphamide, mercaptopurine, thiotepa)</td>
<td>chloral hydrate liquid, for sedation of children</td>
</tr>
<tr>
<td>hypoglycemic agents, oral</td>
<td>heparin, including unfractionated and low molecular weight heparin</td>
</tr>
<tr>
<td>immunosuppressants agents (e.g., azathioprine, cycloSPORINE, tacrolimus)</td>
<td>metFORMIN</td>
</tr>
<tr>
<td>insulin, all formulations</td>
<td>methotrexate, non-oncologic use</td>
</tr>
<tr>
<td>opioids, all formulations</td>
<td>midazolam liquid, for sedation of children</td>
</tr>
<tr>
<td>pediatric liquid medications that require measurement</td>
<td>propylthiouracil</td>
</tr>
<tr>
<td>pregnancy category X drugs (e.g., bosantan, ISOtretinoin)</td>
<td>warfarin</td>
</tr>
</tbody>
</table>

**Background**

Based on error reports submitted to the ISMP Medication Errors Reporting Program (ISMP MERP), reports of harmful errors in the literature, and input from practitioners and safety experts, ISMP created a list of potential high-alert medications. During June-August 2006, 463 practitioners responded to an ISMP survey designed to identify which medications were most frequently considered high-alert drugs by individuals and organizations. In 2008, the preliminary list and survey data as well as data about preventable adverse drug events from the ISMP MERP, the Pennsylvania Patient Safety Reporting System, the FDA MedWatch database, databases from participating pharmacies, public litigation data, literature review, and a small focus group of ambulatory care pharmacists and medication safety experts were evaluated as part of a research study funded by an Agency for Healthcare Research and Quality (AHRQ) grant. This list of drugs and drug categories reflects the collective thinking of all who provided input. This list was created as part of the AHRQ funded project “Using risk models to identify and prioritize outpatient high-alert medications” (Grant # 1P20HS017107-01).
High-Alert Medications

- Warfarin (Coumadin)
- Lovenox (enoxaparin)
- Methotrexate (Rheumatrex, Trexal)
- Fentanyl Patch (Duragesic)
- Hydrocodone with Acetaminophen (Vicodin, Lortab)

High-Alert Medications: Version en español

- Warfarina
- Enoxaparina
- Paracetamol con acetaminofen (Tums)
- Humalog (insulin lispro)
- Lantus (insulin glargina)
- Apidra (insulin glulisina)

DO NOT TAKE THIS MEDICINE EVERY DAY!

Fatal errors have happened when methotrexate was prescribed, dispensed, and/or taken daily instead of once or twice a week. Treatment for rheumatoid arthritis and psoriasis (or other certain conditions) requires just one to three doses (12 hours apart) taken each week.
Ex-pharmacist Eric Cropp found guilty in medication death of Emily Jerry, 2

By Michael Sangiacomo, The Plain Dealer

Email the author | Follow on Twitter

on May 13, 2009 at 7:26 PM, updated May 14, 2009 at 8:19 AM

Former pharmacist Eric Cropp was found guilty of involuntary manslaughter Wednesday in the death of a 2-year-old girl killed by a lethal injection of a salt solution during a cancer treatment.

John Kuntz/The Plain Dealer Kelly Jerry, whose daughter Emily died after receiving a lethal dose of salt solution during a cancer treatment, attends a court hearing Wednesday in which Cropp, right, pleaded no contest to involuntary manslaughter. Jerry declined to comment at the hearing.

Cropp, 40, of Bay Village, pleaded no contest to the charge at a hearing in Cuyahoga County Common Pleas Court. Judge Brian Corrigan will sentence Cropp on July 17. The maximum sentence is five years in prison and a $10,000 fine.

Prosecutors dropped a reckless homicide charge as part of a plea deal.

Cropp was the supervising pharmacist at Rainbow Babies & Children's Hospital on Feb. 26, 2006, when pharmacy technician Katie Dudash prepared a chemotherapy solution for Emily Jerry that was 23 percent salt. The formula called for a saline base of less than 1 percent.

The child died on March 1 after slipping into a coma.

As the supervising pharmacist, Cropp had the duty to inspect and approve all work prepared by the technicians before it was given to patients. Dudash agreed to testify against Cropp and was never charged.

The Ohio Board of Pharmacy stripped Cropp of his license in 2007. Since then, he
Role of state boards of pharmacy

• Remediation efforts by state boards (form of disciplinary action) vs. Just Culture

• Understanding that most often, when an error happens the pharmacy, rather than the pharmacist, is where the focus should be.

• Quality improvement programs for “quality related events” (QREs)

• Pharmacies must be proactive in addressing errors, not reactive. Should show evidence they utilize error reports and alerts from ISMP and others.

• State boards need to disseminate errors they learn about that haven’t yet happened at other pharmacies, rather than punish a pharmacist for making error.

• BOPs should use experts in error prevention to guide their efforts to protect the public health, not just practicing pharmacist panels
**Just Culture – The Three Behaviors**

<table>
<thead>
<tr>
<th>Human Error</th>
<th>At-Risk Behavior</th>
<th>Reckless Behavior</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Inadvertent action: slip, lapse, mistake</em></td>
<td><em>A choice: risk not recognized or believed justified</em></td>
<td><em>Conscious disregard of unreasonable risk</em></td>
</tr>
<tr>
<td>Manage through changes in:</td>
<td>Manage through:</td>
<td>Manage through:</td>
</tr>
<tr>
<td>• Processes</td>
<td>• Removing incentives for At-Risk Behaviors</td>
<td>• Remedial action</td>
</tr>
<tr>
<td>• Procedures</td>
<td>• System changes</td>
<td>• Disciplinary action</td>
</tr>
<tr>
<td>• Training</td>
<td>• Creating incentives for healthy behaviors</td>
<td></td>
</tr>
<tr>
<td>• Design</td>
<td>• Increasing situational awareness</td>
<td></td>
</tr>
<tr>
<td>• Environment</td>
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</tr>
</tbody>
</table>

**Console**

**Coach**

**Punish**

Example, at risk behavior - bottle scanned twice rather than each of two look-alike bottles removed from the shelf.
Example – At Risk Behavior

• A cardboard that has bar-coded labels taped to it to speed up product selection
Risk models to improve safety of dispensing high-alert medications in community pharmacies

Michael E. Cohen, Judy L. Smutzer, John E. Westphal, Sharon Conrow Condon, and Donna M. Horn

Abstract

Objectives: To determine whether a computerized probabilistic risk assessment can create accurate approximations of detailed risk models that describe error pathways, estimate the incidence of preventable adverse drug events (PADEs) with high-alert medications, rank the effectiveness of interventions, and provide a more informative picture of risk in the community pharmacy setting than is available currently.

Design: Developmental study.

Setting: 22 community pharmacies representing three U.S. regions.

Participants: Model-building group: six pharmacists and three technicians. Model validation group: 11 pharmacists and staff at two pharmacies observed.

Intervention: A model-building team built 10 event trees that estimated the incidence of PADEs for four high-alert medications: warfarin, intravenous fluids, methotrexate, and insulin analogs.

Main outcome measures: Validation of event tree structure and incidence of defined PADEs with targeted medications.

Results: PADEs with the highest incidence included dispensing the wrong dose/quantity (1.83/1,000 prescriptions), dispensing warfarin to the wrong patient (1.22/1,000 prescriptions), and dispensing an inappropriate fluid or parenteral dose due to a prescribing error (7.3/10,000 prescriptions). PADEs with the lowest incidence included dispensing the wrong drug when filling a warfarin prescription (9.43/1 billion prescriptions). The largest preventable reductions in risk were provided by increasing patient counseling (27–68% reduction), conducting a second data entry verification process during prescription verification (59–87% reduction), computer alerts that can’t be bypassed (up to 100% reduction), opening the bag at the point of sale (50% reduction), and use of barcoding technology (almost a 100% reduction in risk if technology not used). Combining two or more interventions resulted in further overall reduction in risk.

Conclusion: The risk models define thousands of ways process failures and behavioral elements combine to lead to PADEs. This level of detail is unaffordable from any other source.

Keywords: Risk assessment, high-alert medications, preventable adverse drug events, event trees.

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Correspondence: Judy Smutzer, RN, BSN, FSMP, Institute for Safe Medication Practices, 290 Laketown Dr., Suite 200, Horsham, PA 19044. Fax 215-516-1659. E-mail: jsmutzer@ismp.com

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<table>
<thead>
<tr>
<th>Evaluated interventions*</th>
<th>Errors before action, per 1,000 prescriptions</th>
<th>Errors after action, per 1,000 prescriptions</th>
<th>Decrease in risk (increase in risk) %</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PADE: Medication dispensed to the wrong patient due to a bagging error or bag selection error at the point of sale</strong></td>
<td>1.22 (1.22/1,000)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A: Open the bag at the point-of-sale to view all filled prescriptions</td>
<td></td>
<td>0.534</td>
<td>56</td>
</tr>
<tr>
<td>B: Increase adherence with following a patient identification process from 50% to 80%</td>
<td></td>
<td>0.804</td>
<td>34</td>
</tr>
<tr>
<td>C: Increase patient counseling from 30% to 50%</td>
<td></td>
<td>0.889</td>
<td>27</td>
</tr>
<tr>
<td>D: Reduce at-risk behavior of working on more than one patient’s medications during product verification and bagging (which lowers the bagging error rate from 0.4 to 0.1 per 1,000 prescriptions)</td>
<td>1.11</td>
<td></td>
<td>9</td>
</tr>
<tr>
<td>Action A and action B</td>
<td></td>
<td>0.233</td>
<td>81</td>
</tr>
<tr>
<td>Action A and action B and action C</td>
<td></td>
<td>0.169</td>
<td>86</td>
</tr>
<tr>
<td>Action A and action B and action C and action D</td>
<td></td>
<td>0.154</td>
<td>87</td>
</tr>
</tbody>
</table>
Quarterly Action Agendas

• One of the most important ways to prevent medication errors is to learn about problems that have occurred in other organizations and to use that information to prevent similar problems at your practice site.

• The ISMP Quarterly Action Agenda is prepared for leadership to use with an interdisciplinary committee or with frontline staff to stimulate discussion and action to reduce the risk of medication errors.

• [http://www.ismp.org/Newsletters/acutecare/actionagendas.aspx](http://www.ismp.org/Newsletters/acutecare/actionagendas.aspx)
### ISMP Ambulatory Care Action Agenda

**May - August 2017**

One of the most important ways to prevent medication errors is to learn about problems that have occurred in other organizations and to use that information to prevent similar problems at your practice site. To promote such a process, the following selected agenda items have been prepared for you and your staff to stimulate discussion and collaborative action to reduce the risk of medication errors. These agenda topics appeared in the ISMP Medication Safety Alert! Community/Ambulatory Care Edition between May 2017 and August 2017. Each item includes a brief description of the medication safety problem, recommendations to reduce the risk of errors, and the issue to locate additional information. The Action Agenda is also available for download in a Word format at www.ismp.org/Newsletter/ambulatory/actionagenda.asp. To learn how to use the ISMP Ambulatory Care Action Agenda at your practice site, visit www.ismp.org/newsletters/ambulatory/HowToUseAA.asp.

#### Key

- **ISMP high-alert medication**

<table>
<thead>
<tr>
<th>Issue</th>
<th>Problem</th>
<th>Recommendation</th>
<th>Organization Assessment</th>
<th>Action Required/Assignment</th>
<th>Date Completed</th>
</tr>
</thead>
<tbody>
<tr>
<td>08/17</td>
<td>Reported errors with tacrolimus have been caused by mix-ups between drug strengths that differ by a factor of 10, regular and extended-release formulations, and look-alike names; confusion when dispensing more than one strength for the patient’s dose; and compounding an oral liquid formulation. Also, the manufacturer’s label for ASTGRAF XL “ONE-DAILY” has been misinterpreted by patients as meaning take one capsule per dose, rather than following the directions on the prescription label. Some of the errors resulted in patient harm including organ rejection.</td>
<td>Standardize compounding concentrations and recipes [see ASHP Compounded Oral Liquid Version 1.01 at <a href="http://www.ismp.org/actd-7981">www.ismp.org/actd-7981</a>]. When expressing doses less than 1 mg, always include a leading zero. Display the brand names for extended-release formulations on drug ordering and verification screens. Avoid the use of the modifier “IR” for immediate-release products. Stock all available strengths that might be prescribed and use the simplest single strength or combination of strengths to match prescribed doses. Educate patients using “teach back” methods.</td>
<td></td>
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<tr>
<td>05/17</td>
<td>ISMP has received reports from consumers that oral suspensions were inappropriately mixed. In one case, a 3-year-old girl ran out of her cephalaxin oral suspension in 7 days instead of the prescribed duration (10 days) despite following the provided dosing instruction. It was suspected that the incorrect amount of diluent was used to reconstitute the antibiotic. Inappropriately reconstituted medications can lead to adverse events including wrong doses and treatment failures. ISMP has also received reports of oral suspensions that were not reconstituted before they were dispensed to the patient.</td>
<td>Add a note or other distinct visual cue to the prescription receipt indicating that the product needs to be reconstituted. Explore ways to leverage technology at the point-of-sale to reduce the risk of dispensing a product that has not been reconstituted. Incorporate an independent double check of the volume of diluent measured for reconstitution prior to the actual reconstitution of the product. After the product is reconstituted, give the product to the pharmacist to counsel the patient, using the “teach back” method, on how to measure the medication. Provide the patient with an appropriate oral syringe or other metric measuring device that corresponds with the instructions for use.</td>
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</tbody>
</table>
Error reporting

• State-required quality improvement programs should NOT be just about internal errors but should also require evidence showing that pharmacy is being proactive (ISMP reports etc.).

• External reporting requirement to a PSO. Not just to chain corporate headquarters. Strive to share internal data to improve learning

• Chains should deidentify, collate and share publicly via an outside PSO

• ISMP Canada mandatory reporting program
Making error reporting work

• Capitalize on altruism
• No public disclosure of involved staff
• Personal response to reporters
• Feedback and changes communicated
• Non-critical of individuals – it’s the system
• Expert and credible analysis
• De-identified information forwarded to authorities
• Regulator and manufacturer advocacy
Data Elements

• Possible causes
  • Critical patient information missing?
  • Critical drug information missing?
  • Miscommunication of drug order?
  • Drug name, label, packaging problem?
  • Drug storage or delivery problem?
  • Drug delivery device problem?
  • Environmental, staffing, or workflow problems.
  • Lack of staff education?
  • Lack of patient education?
  • Lack of quality control or independent check systems?

(Assess-ERR™ [www.ismp.org/Tools/AssessERR.pdf])
Root Cause Analysis Workbook for Community/Ambulatory Pharmacy
Information technology

• More is needed to understanding how IT systems, product labeling, drug names, etc., contribute to errors

• Example: therapeutic duplication due to automatic renewal of discontinued chronic medications by pharmacy

• Example: Renewal requests to prescriber for medication discontinued by a different prescriber
Pharmacy automatic prescription refills can contribute to medication errors and waste

by Michael R. Cohen, RPh, MHA, @PhillyHealth | CheckUp

When you have a prescription filled regularly for a chronic condition like high blood pressure or diabetes, chances are your pharmacy will ask you to opt in for a service that allows them to automatically dispense the prescription before your medication runs out. Once you agree, you will be notified by phone call or email when refills are ready for pick-up. The service will continue to contact you until you finally stop by the pharmacy.

The good news is the service eliminates the need for the patient to renewal request a refill, so it helps patients follow their doctor's instructions. It can improve safety in the pharmacy since staff can better prioritize their work, they won't feel as rushed. Most pharmacists appreciate it because there's no longer a demand on demand since patients don't need to stand by in the pharmacy until the prescription is ready.

But there's also a downside. The system may be fraught with errors and ways in which electronic prescribing systems currently used by doctors do not ensure that electronically discontinued medications are properly communicated to the patient. It's a known flaw that has gone uncorrected by the industry and government since the prescribing began. Unfortunately, unless the patient and their doctor remember to communicate that changes in medication therapy have taken place. But if they don't know about changes to the computer is not reset. The automated system may not follow, dispensing unused prescribed potentially harmful medications.

I wrote earlier about a patient who was taking Carbimid, a heart medication. The doctor increased the dose from 62 mg to 160 mg. The elderly patient did not know about this change until she walked into the pharmacy and was told she had run out of medication.

Pharmacy dispensing of electronically discontinued medications.

Abstract

BACKGROUND: Most physician offices do not transmit orders for medication discontinuation to the pharmacy, creating the potential for errors in dispensing of previously prescribed medications. Electronic health records offer the potential to assess this patient safety concern.

OBJECTIVE: To assess the frequency of and potential patient harm associated with pharmacy dispensing of discontinued medications in the ambulatory setting.

DESIGN: Retrospective cohort study.

SETTING: Multispecialty group practice in eastern Massachusetts using an electronic health record.

PATIENTS: 30 adults patients with an electronic discontinuation order for antihypertensive, antithrombin, anticoagulant, oral hypoglycemic, and statin medications between November 2006 and October 2009.

MEASUREMENTS: Dispensing of discontinued medications within 12 months and associated potential patient harm.

RESULTS: Among 83,920 targeted medications that were electronically discontinued, 1218 (1.5% [95% CI, 1.4% to 1.5%]) were subsequently dispensed by the pharmacy. A mean of 1.0 (SD, 0.3) times during the 12-month follow-up. Among the top 10 most frequently electronically discontinued medications, the rate of subsequent dispensing by a pharmacy was between 0.9% for methotrexate to 2.5% for metformin. Manual chart review of 416 medication-dispensing events that were precluded as high risk according to an automated algorithm for potential harm in 50 (12%) cases, including clinical reactions (n = 18), laboratory abnormalities (n = 17), duplicated medication classes dispensed (n = 8), and potential allergic reactions (n = 7).

LIMITATION: Information on pharmacy dispensing was available for only 52% of medication orders.

CONCLUSION: The dispensing of discontinued medications represents an important ambulatory patient safety concern. Electronic health records should be utilized to facilitate better communication between providers and pharmacies and improve medication safety.

PRIMARY FUNDING SOURCE: National Institutes of Health.
Need to control interruptions, distractions, etc.

• Environmental issues - interruptions, noise, poor lighting (drive up window, pharmacy calls, preauthorization of prescriptions, clarification of e-Rx by doctors (office staff sometimes.; Sometimes not done at all even though questionable)

• Interruptions for vaccinations, plus pharmacists and technicians have quotas to meet and are pressured to meet or exceed. Can effect bonuses.

• Time pressures and quotas for prescription dispensing (various metrics used for pharmacist bonuses). The 15-minute promise!
Value pharmacist clinical services

• Pharmacist clinical knowledge and patient care not valued by third parties
• Not paid for important pharmacy interventions or clinical services
• Focus is how many prescriptions “filled” per unit of time.
• Few patients receive actual counseling (beyond just take one tablet three times a day)
• The insulin pen needle NAN alert is example of major safety issue How many pharmacists would even be aware of the problem let alone teach the patient?
Severe hyperglycemia in patients incorrectly using insulin pens at home

The Institute for Safe Medication Practices (ISMP) National Medication Errors Reporting Program (MERP) has received several reports of patients who failed to remove the inner cover of a standard insulin pen needle prior to attempting to administer the insulin. The latest event resulted in a fatality. A recently hospitalized patient with type 1 diabetes did not know to remove the standard needle cover from the insulin pen needle prior to administration. She was unaware that she was using the pen incorrectly and, thus, had not been receiving any of the insulin doses. The patient developed diabetic ketoacidosis and later died.

To protect staff from needlestick injuries and guard against the reuse of needles, many hospitals use insulin pen needles that automatically re-cover and lock the pen needle once injection has been completed and the needle has been withdrawn from the skin. Such products include NovoRine Autocover (Novo Nordisk) and BD Autoshield DUO. These safety needles are also recommended for some patients with manual dexterity limitations or if a caregiver is administering the injection to a patient.

With the NovoFire Autocover (Figure 1) safety needle for example, the user holds the outer cover of the needle while it is attached to the insulin pen and then removes it, exposing a plastic needle shield that covers the needle. During administration, as the device is held against the skin and pressure is applied, the needle shield slides back to allow the skin to be punctured and the insulin to be injected once the release button is pressed. As the needle is removed from the skin after administration, the shield slides back over the needle. The needle is hidden throughout the process so the patient will never see it.

The Autocover safety needle system is different from standard insulin pen needles widely used by patients in the home, which do not employ an automatic needle shield. These standard needles are available from brand and generic manufacturers. Because standard pen needles and those with an automatic needle shield may look similar, patients may not be aware of the differences in preparation for administration. Both the automatic safety needle and standard needle systems have a larger outer protective cover that, when removed, exposes either a retractable needle shield (Figure 1) or a plain inner needle cover (Figure 2). The automatic safety needle shield is continued on page 2—NANV
Interacting with patients in wake of a dispensing error

• Greater understanding needed on how to respond to patient concerns and dispensing errors, how to care for patients who report an error
Watchdog: Pharmacies miss half of dangerous drug combinations

The Chicago Tribune tested 255 pharmacies to see how often stores would dispense risky drug pairs without warning patients. Fifty-two percent of the tested pharmacies sold the medications without mentioning the potential interaction. (Chicago Tribune)

By Sam Roe, Ray Long and Karisa King · Contact Reporters
Chicago Tribune
DECEMBER 19, 2016, 0:44 AM

The Tribune reporter walked into an Evanston CVS pharmacy carrying two prescriptions: one for a common antibiotic, the other for a popular anti-cholesterol drug.

Taken alone, these two drugs, clarithromycin and simvastatin, are relatively safe. But taken together they can cause a severe breakdown in muscle tissue and lead to kidney failure and death.

When the reporter tried to fill the prescriptions, the pharmacist should have warned him of the dangers. But that’s not what happened. The two medications were packaged, labeled and sold within minutes, without a word of caution.

The same thing happened when a reporter presented prescriptions for a different potentially deadly drug pair at a Walgreens on the Magnificent Mile.

And at a Wal-Mart in Evergreen Park, a Jewel-Osco in River Forest and a Kmart in Springfield.
ISMP National Medication Errors Reporting Program

Medication Error Reporting Program
Vaccine Error Reporting Program
Consumer Error Reporting Program