MEDICATION ERRORS PREVENTION UPDATE -FL APPROVED/LAW-

ACTIVITY DESCRIPTION
This knowledge based program will give health care providers an understanding of the behavioral aspect of medication errors and how various personality types might be more susceptible to different types of medication errors. The program will also review the components of a pharmacy’s Continuous Quality Improvement Committee and methods to evaluate the effectiveness of the CQI systems.

This program is approved for Florida Medication Errors Credit.

TARGET AUDIENCE
The target audience for this activity is pharmacists and pharmacy technicians in hospital, community, and retail pharmacy settings.

LEARNING OBJECTIVES
After completing this activity, the pharmacist will be able to:

- Describe the components of a pharmacy’s Continuous Quality Improvement committee and how to evaluate the effectiveness of the CQI system
- State the behavioral aspect of medication errors and how various personality types may result in the making of medication errors
- List five areas of the pharmacy system that should be evaluated to ensure an optimal pharmacy environment that will result in minimal medication errors. Discuss the importance of balance in the regulation of pharmacy

After completing this activity, the pharmacy technician will be able to:

- List the most common types of medication errors
- Identify strategies to minimize the most common errors made by pharmacy technicians

ACCREDITATION
PHARMACY
PharmCon, Inc. is accredited by the Accreditation Council for Pharmacy Education as a provider of continuing pharmacy education.

NURSING
PharmCon, Inc. is approved by the California Board of Registered Nursing (Provider Number CEP 13649) and the Florida Board of Nursing (Provider Number 50-3515). Activities approved by the CA BRN and the FL BN are accepted by most State Boards of Nursing.

CE hours provided by PharmCon, Inc. meet the ANCC criteria for formally approved continuing education hours. The ACPE is listed by the AANP as an acceptable, accredited continuing education organization for applicants seeking renewal through continuing education credit. For additional information, please visit http://www.nursecredentialing.org/RenewalRequirements.aspx

Universal Activity No: 0798-0000-12-089-L03-P&T
Credits: 1 contact hour (0.1 CEU)

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ACTIVITY TYPE
Knowledge-Based Live Webinar
ABOUT THE AUTHOR
David Brushwood is professor of Pharmaceutical Outcomes and Policy at the University of Florida College of Pharmacy. A graduate of the schools of pharmacy and law at the University of Kansas, professor Brushwood practiced both professions prior to entering academia. Professor Brushwood has developed error prevention programs for several pharmacy chains. His research interests are in the areas of regulating for outcomes, medication error prevention, and pain management policy. He has received grant funding from numerous agencies including the Robert Wood Johnson Foundation, the National Institutes of Health, and the National Community Pharmacy Foundation.

Professor Brushwood received the 2012 Pellegrino Medal. The award honors nationally-recognized leaders “for contributions to healthcare ethics in the selfless spirit of Edmund D. Pellegrino.” He also has twice been selected as a Mayday Scholar in Pain Policy by the American Society of Law, Medicine & Ethics. Professor Brushwood is a frequent contributor to pharmacy journals and to law journals. He developed, and serves as an advisor for the UF online Master of Science in Pharmacy, a graduate program offering seven areas of specialization in regulatory pharmaceutical fields.

FACULTY DISCLOSURE
It is the policy of PharmCon, Inc. to require the disclosure of the existence of any significant financial interest or any other relationship a faculty member or a sponsor has with the manufacturer of any commercial product(s) and/or service(s) discussed in an educational activity. David Brushwood reports no actual or potential conflict of interest in relation to this activity.

Peer review of the material in this CE activity was conducted to assess and resolve potential conflict of interest. Reviewers unanimously found that the activity is fair balanced and lacks commercial bias.

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**ERROR IS NORMAL**

The Behaviors We Can Expect

- Human error - inadvertent action; inadvertently doing other than what should have been done; slip, lapse, mistake.

- At-risk behavior - behavioral choice that increases risk where risk is not recognized or is mistakenly believed to be justified.

- Reckless behavior - behavioral choice to consciously disregard a substantial and unjustifiable risk.

**PUNISHMENT PROS**

- Pros
  - Quick and easy to do.
  - Makes it seem as if something productive is being done.
  - Potential deterrent effect—Leads to risk avoidance. (Some risks are not worth taking).
PUNISHMENT CONS

- Cons
  - Ineffective—threats do not prevent unintentional conduct.
  - Leads to cover up of errors to avoid punishment.
  - Deters risky but beneficial activities. (some risks are worth taking)

Now, A Lesson Learned From Aviation.

A JUST CULTURE IN HEALTH CARE

“The single greatest impediment to error prevention in the medical industry is that we punish people for making mistakes.”

- Dr. Lucian Leape

JUSTICE FOR WHOM?

After an inadvertent error has been made by a pharmacist, who is interested in justice being served?

- Patient
- Patient’s Family
- Pharmacist
- Health Care Institution
- Health Care System
- Public

RECENT CRIMINAL PROSECUTIONS

- USA—Pharmacist Eric Cropp (2006)
  - Technician inadvertently prepares chemo w 23% saline & not normal saline-pediatric pt dies.
  - Pharmacist pled no-contest to involuntary manslaughter—6 months in prison, license revocation.
- UK—Pharmacist Elizabeth Lee (2007)
  - Pharmacist dispenses propranolol when prednisolone prescribed-geriatric pt death unrelated to error.
  - Pharmacist convicted, sentenced to 3 mo in jail, conviction affirmed, jail suspended on appeal, license voluntarily surrendered.
**HISTORICAL ANTECEDENTS**

- Tessymond’s Case 168 English Reports 169 (1828).
- “Chymist delivered a viol with paregoric label on it, but with laudanum in it.”
- “The laudanum bottle and the paregoric bottle stood side by side.”
- “If a party is guilty of negligence, and death results, the party guilty of that negligence is also guilty of manslaughter.”

**MORE RECENT MEDICATION ERRORS**

**CASE STUDY I: LOOK & SOUND ALIKE DRUG NAMES**

- Abilify dispensed when Aricept prescribed.
- Aricept label placed on original manufacturer container of Abilify.
- Patient became confused; hospitalized.
- Prevention: Review meds with patient or caregiver at pickup; bar-code scanner when affixing label to bottle.

**MORE RECENT MEDICATION ERRORS**

**CASE STUDY II: PATIENT ALTERING DOSAGE FORM**

- Patient attempted to chew Exalgo tablet.
- Due to difficulty swallowing, patient sought to facilitate drug use, broke tooth.
- Prevention: Patient counseling that this product is not to be broken, chewed, dissolved, crushed or injected; this information should be included on auxiliary label and not hidden in voluminous printed matter.

**MORE RECENT MEDICATION ERRORS**

**CASE STUDY III: OPHTHALMIC USE OF TOPICAL DRUG**

- Eye medication Durezol prescribed and topical wart remover Duraspal dispensed.
- Duraspal is an unapproved OTC product and did not undergo FDA evaluation for potential name confusion.
- Prevention: Scrutinize product labeling to avoid wrong route of administration; report problems with drug name confusion to the FDA through MedWatch.
**RECENT MEDICATION ERRORS**
**CASE STUDY IV: FAILURE TO ADDRESS PRESCRIBER ERROR**

- Prescriber issues order for methotrexate to treat RA once daily, rather than once weekly. Pharmacist fails to detect and rectify prescriber error.
- Patient suffers methotrexate toxicity.
- Prevention: Pharmacist performance of DUR then contact with prescriber to verify accuracy of order.

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**FDA & ISMP**
**UNCLEAR ABBREVIATIONS CAMPAIGN**

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Problem</th>
<th>Suggestion</th>
</tr>
</thead>
<tbody>
<tr>
<td>U</td>
<td>Mistaken for zero, number four, cc</td>
<td>Write out “unit”</td>
</tr>
<tr>
<td>IU</td>
<td>Mistaken for IV, number ten</td>
<td>Write out “international unit”</td>
</tr>
<tr>
<td>Trailing zero</td>
<td>Decimal point is missed</td>
<td>Write “.5 mg” not “.5 mg” Do use leading zeros, write “.05 mg” not “.5 mg”</td>
</tr>
<tr>
<td>MgSO4 &amp; MgSO4</td>
<td>Can be confused for each other</td>
<td>Write out “magnesium sulfate” or “magnesium sulfate”</td>
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</tbody>
</table>

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**THE GOAL IS SYSTEM IMPROVEMENT**

“You can put a good pharmacist into a bad system and the system will win every time.”

- Dr. Tony Grasha

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**IDEALISTIC PHARMACISTS AND IMPROVEMENT OF THE PHARMACY SYSTEM**

- The Fudger
- The Civil Disobedient
- The Outlaw Hero
- The System Critic

- These are intentional actors who want to help patients, but who create challenges for the profession and for those who regulate the profession.

Modified from Prof. Sidney Watson, St. Louis University School of Law
THE FUDGER

- **Example**
  - Using in-date returned drugs for indigent patients.
- **Traits**
  - Illegal
  - Private and Hidden
  - Seeks to Avoid Punishment
  - Purpose of to help another without changing the perceived injustice
- **Impact**
  - Short circuits the larger discussion within a democratic profession.
  - Subverts community by breaking trust.
  - Demeans the fudger
  - Corrupts the fudger.

THE CIVIL DISOBEDIENT

- **Example**
  - Compounding less expensive formulations of commercially available drugs, pursuant to patient-specific Rx.
- **Traits**
  - Illegal
  - Open and Public
  - Accepts Punishment
  - Purpose is to Change Law Through Crisis and Creative Tension.
- **Impact**
  - Operates Within the Structure of a Democratic Profession.
  - Creates Community by Trusting the Community.
  - Civil Disobedient Risks Severe Punishment.
  - Civil Disobedient Risks Being Dismissed as Extremist.

THE OUTLAW HERO

- **Example**
  - Dispenses high doses of prescribed opioids for pain management, despite knowledge of diversion & abuse.
- **Traits**
  - Illegal
  - Public
  - Seeks to Avoid Punishment
  - Purpose is to Help Others and Change Law
  - Acts in Community
- **Impact**
  - Perpetuates Myths about challenges in treating Chronic Pain.
  - Creates Alternative Communities of Trust-Pain Management, Addiction Medicine
  - Punishment is Almost Inevitable
  - Danger that Outlaw Hero Will Become Mere Outlaw.

THE SYSTEM CRITIC

- **Example**
  - Speaks Up and/or Refuses to Work When System Circumstances are a “Setup for Failure.”
- **Traits**
  - Legal
  - Public
  - Purpose is to Help Others and Change Law
  - Trusts Legal and Political Processes
  - Has High Personal Risk to the System Critic
- **Impact**
  - Encourages Active Participation in Ongoing Professional Conversation.
  - Builds Community
    - With Patients.
    - With Society.
    - With Other HCPs.
  - Threatens Ordinary Way of Doing Things.
  - System Critic Appears to be a “Whiner.”
**SYSTEM IMPROVEMENT AND BOARDS OF PHARMACY**

- Approximately 40 boards of pharmacy have adopted some form of CQI as a way to prevent medication errors.
- CQI is proactive rather than reactive.
- Focus is on system improvement rather than individual punishment.
- Florida was the first state to adopt a CQI program.

**TIME FOR A BREAK**

- Let’s take 10 minutes to refresh ourselves, and then we will continue the program.
- When we return, we will discuss the specifics of the Florida CQI law and the key steps to take in complying with it.

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**10 MINUTE BREAK !!!**

Are you a Fudger, Civil Disobedient, Outlaw Hero or a System Critic? Or something else?

Give an example!

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**5 minutes remaining !!!**

REMINDER:
IF YOU HAVE QUESTIONS, TYPE THEM IN THE CHAT BOX AND SUBMIT THEM.
ALL QUESTIONS WILL BE ANSWERED AT END OF PRESENTATION AS TIME PERMITS.
THE FLORIDA CQI RULE
IDENTIFY AND EVALUATE QUALITY-RELATED EVENTS (QRES)

Variation from order
- Incorrect drug.
- Incorrect strength.
- Incorrect dosage form.
- Incorrect patient.
- Inadequate or incorrect packaging, labeling, or directions.

THE FLORIDA CQI RULE
IDENTIFY AND EVALUATE QUALITY-RELATED EVENTS (QRES)

Failure to Identify and Manage
- Over-utilization or under-utilization.
- Therapeutic duplication.
- Drug-disease contraindications.
- Drug-drug interactions.
- Incorrect dose or duration.
- Allergies
- Clinical abuse/misuse.

FLORIDA CQI PROCESS

- CQI Committee
- Record QREs (confidential & protected)
- Review at least every 3 months
- Record, measure, assess, improve quality
- Review procedure
  - Remedy problem for patient
  - Consider effects on quality due to staffing levels, workflow, technological support
**COMPLIANCE WITH CQI STANDARDS**

- Select a Quality Team Leader.

- Define “Quality-Related Event.”

**COMPLIANCE WITH CQI STANDARDS**

- Describe the Practice Process.
  - Receiving the prescription.
  - Data entry.
  - Prospective Drug Use Review.
  - Prescription assembly.
  - Final check.
  - Patient counseling.
  - Medication delivery.

**COMPLIANCE WITH CQI STANDARDS**

- Develop a QRE recording system.

- Train pharmacy staff in CQI.

**THE CQI TEAM MEETING**

- Purpose is to improve patient care not blame anyone.

- Focus in on the future, not the past.
THE CQI TEAM MEETING

- Everything said in the meeting is confidential.
- Quality Team Leader’s job is to ask good questions and lead discussion—not to provide all the right answers.

REVIEWING FACTS ABOUT EVENTS

- Was the Rx a phone in or written (paper, fax, computer)?
- Was the Rx new or continuing therapy?
- Was the Rx for a person who was waiting or for will-call or delivery?
- Was the person to whom Rx was delivered the patient or an agent of the patient?

REVIEWING FACTS ABOUT ENVIRONMENT

- How many Rxs were filled on the day the QRE occurred?
- How many pharmacists/techs were working on that day?
- Is it documented that DUR was consistently being done on that day?
- Is it documented that patient counseling was consistently being done on that day?
- Was anything special or unusual about the day the QRE occurred?

EVALUATING STAFFING ISSUES

- Are staff scheduled to efficiently handle peaks in prescription volume?
- Are staff properly trained regarding CQI guidelines?
- Are technicians encouraged to ask “dumb” questions?
- Are pharmacists conducting final check of every prescription?
EVALUATING WORKFLOW ISSUES

- Is the pharmacy work area neat, clean, and organized for accuracy?
- Is the pharmacy following a standard workflow, organized into stations?
- Are waiting and will-call Rx's appropriately separated?
- Are look-alike and sound-alike drugs separated to avoid confusion?

EVALUATING COMMUNICATION ISSUES

- Are data entry and Rx assembly staff separated from interruptions?
- Is necessary equipment (scanner, fax, photocopier, etc.) available?
- Is telephonic equipment of sufficient quality that callers can be clearly heard?
- Are people picking up medications being asked their telephone number?

LOOKING TOWARD THE FUTURE

- What challenges have we identified?
- What solution(s) should be implemented to address our challenges?
- How will we implement our solutions?
- How will we know that an identified solution has been successful?
- Whose responsibility is it to determine whether a chosen solution has been successful.

WHAT DOES THE SYSTEM CRITIC CHECK BEFORE PUTTING PATIENTS AT RISK?

- Personnel Checks.
- Process Checks.
- Communication Checks.
- Personnel Checks.
- Management Checks.
PERSONAL CHECKS

• Am I feeling physically and mentally well today?
• Do I possess sufficient knowledge of the therapies used at this practice site?
• Do I have the skills necessary to perform well as this practice site?
• Am I able to free myself of personal distractions today?
• Do I have available the reference materials I need?

PROCESS CHECKS

• Are policies and procedures for this practice site clearly established?
• Does this practice site have the necessary equipment?
• Are the medications and supplies at the practice site adequate?
• Is the physical layout uncluttered and logically organized?
• Is the practice site free of unnecessary distractions?

COMMUNICATION CHECKS

• Is the communication technology adequate?
• Will the counseling area allow for complete, private patient education?
• Are there adequate written materials to use in patient education?
• Am I able to consult trusted colleagues if I need assistance or advice?

PERSONNEL CHECKS

• Do I have sufficient supportive personnel?
• Are pharmacy technicians well-trained and experienced?
• Do personnel have a sense of responsibility for their actions?
• Do support personnel appreciate the limits of their role?
• Does the work environment emphasize the importance of teamwork?
**MANAGEMENT CHECKS**

- Is there a clear understanding of who is in charge of the pharmacy?
- Is management available to me today if I have questions?
- Do I feel I have the necessary support of management to succeed today?

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**CONCLUSION**

- Medication Error Prevention is a Shared Responsibility
  - Manufacturers
  - Prescribers
  - Pharmacists
  - Patients & their Caregivers
  - Regulators
- “Forgive and Remember”
  - Dr. Charles Bosk