

# TECH talk CE

THE NATIONAL CONTINUING EDUCATION PROGRAM FOR PHARMACY TECHNICIANS 1 CEU

FREE

ANSWER ONLINE FOR INSTANT RESULTS AT [WWW.CANADIANHEALTHCARENETWORK.CA](http://WWW.CANADIANHEALTHCARENETWORK.CA)

MAY 2013

## APPROVED FOR 1 CE UNIT



Approved for 1 CE unit by the Canadian Council on Continuing Education in Pharmacy. File no. 1065-2013-688-I-T. Not valid for CE credits after May 12, 2014.

Answer this CE online for instant results and accreditation. Visit [www.CanadianHealthcareNetwork.ca](http://www.CanadianHealthcareNetwork.ca)

### CE JUST FOR TECHNICIANS

Tech Talk CE is the only national continuing education program for Canadian pharmacy technicians.

As the role of the technician expands, use Tech Talk CE as a regular part of your learning portfolio. Note that a passing grade of 70% is required to earn the CE credit.

Tech Talk CE is generously sponsored by Teva. Download back issues at [www.CanadianHealthcareNetwork.ca](http://www.CanadianHealthcareNetwork.ca). The author has no competing interests to declare.

### ANSWERING OPTIONS

1. Answer the lesson online and get your results instantly at [www.CanadianHealthcareNetwork.ca](http://www.CanadianHealthcareNetwork.ca)

2. Use the reply card included with this CE lesson. Print the lesson, circle the answers on the card, and fax it to Mayra Ramos at 416-764-3937.

To pass this lesson, a grade of 70% (11 out of 15) is required. If you pass, you will receive 1 CEU. You will be advised of your results in a letter from Tech Talk. Please allow 8 to 12 weeks.

### CE FACULTY

#### CE Coordinator:

Margaret Woodruff, RPh, BScPhm, MBA  
Humber College

#### Clinical Editor:

Lu-Ann Murdoch, BScPhm

#### Author:

Certina Ho, RPh, BScPhm, MISt, MEd  
Atsushi Kawano, BSc, MSc, BScPhm

#### Reviewer:

Debra Chartier

# How to handle a medication error

by Certina Ho, RPh, BScPhm, MISt, MEd and Atsushi Kawano, BSc, MSc, BScPhm

## Learning objectives

Upon successful completion of this lesson, you will be able to do the following:

1. Understand the professional responsibilities of managing medication incidents under provincial regulations and within the expanded scope of practice.
2. Recognize human factors and environmental factors in medication incident occurrence.
3. Apply a system-based approach for handling medication incidents.
4. Identify error prevention principles.

### Introduction

Pharmacy technicians comprise a new, allied healthcare profession, and with that comes new responsibilities—and liabilities. This lesson reviews appropriate strategies for handling medication errors. It also presents a system-based approach to prevent similar incidents or near misses from happening again in the future.

### CASE STUDY

Stacey, a community pharmacy manager, saw an opportunity to expand cognitive services at her pharmacy by working with newly regulated pharmacy technicians. Stacey's pharmacy team included two pharmacists and a pharmacy assistant, Derek, who had recently completed the bridging program to become a registered pharmacy technician. Stacey was excited to start delegating new responsibilities (as outlined under the expanded roles of regulated pharmacy technicians) to Derek. Stacey wanted to slowly integrate Derek into his new role by getting him to check prescriptions during the night shift (thought to be the slowest period for incoming prescriptions). During the night shift, Derek was also responsible for dispensing, cashing out customers, and signing off on prescriptions.

Stacey was responsible for entering prescriptions, completing the therapeutic check for all prescriptions, OTC roaming (ie, looking after patients' concerns regarding over-the-counter medications), and completing medication reviews for patients.

One night, the pharmacy received more than the usual amount of patient requests at the pharmacy counter and via phone calls, the online third-party billing system was down, and incoming prescription counts were at least 1.5 times higher than a typical weekday evening shift. On this unexpectedly busy night, Mr. Smith came to the counter with a prescription for his wife. The prescription for Mrs. Smith was for NovoRapid® Penfill (insulin aspart). Stacey entered the prescriptions correctly on the computer. Since the fridge for storing insulin was just next to the pharmacy in-counter, Stacey quickly grabbed a Penfill package from the fridge, left it on the dispensing counter, and attended to another patient who had been waiting for her to conduct a medication review. The phone had been ringing constantly. Derek was rushed during the dispensing process and accidentally checked the wrong medication. Derek signed off on a Novolin®ge 30/70 Penfill (insulin injection 30%;

insulin isophane 70%) instead of NovoRapid® Penfill (insulin aspart). Stacey knew Mr. Smith very well, as she managed all his medications for the past three years). Mr. Smith was a diabetic on stable insulin management with Novolin®ge 30/70 Penfill (insulin injection 30%; insulin isophane 70%). Mr. Smith appeared to be in a rush. Derek handed Stacey the prescription for Mrs. Smith. Even though Stacey entered the prescription for Mrs. Smith, she assumed the medication was for Mr. Smith because of the Novolin®ge 30/70 Penfill (insulin injection 30% and insulin isophane 70%). After Stacey counselled Mr. Smith about his insulin management, Mr. Smith left the pharmacy.

A few days later, Mr. Smith phoned the pharmacy and said his wife had to visit the emergency department because of symptoms associated with hyperglycemia. Mrs. Smith's symptoms were resolved at the emergency department and she was sent home the same day. However, Mr. Smith was threatening to take legal action against Stacey and her pharmacy team. Stacey checked Mrs. Smith's profile on the computer and realized that the wrong medication was given to Mr. Smith for his wife. Stacey was visibly shaken about what happened and asked Derek to talk to Mr. Smith.

**Background**

The opening scenario describes a medication incident that no pharmacy technician wants to face in his or her career. Unfortunately, with increased responsibilities, pharmacy technicians will likely be confronted with situations of near misses or even medication incidents. This lesson illustrates the responsibilities of pharmacy technicians and outlines a systematic strategy to deal with medication incidents, including proactive preventive strategies at the pharmacy (or work setting), as well as an appropriate approach by the pharmacy staff to disclose and discuss the medication incident with the patient and family members.

**Expanded scope of practice**

As the pharmacy profession evolves, pharmacy technicians will be increasingly relied upon to complete all technical aspects of new and refill prescriptions. The expected competencies for pharmacy technicians are established by the National Association of

**TABLE 1 - Envisioned responsibilities within pharmacy technicians' expanded roles**

Technical task	Example
Accepting verbal prescriptions*	Dr. Jones calls the pharmacy because Ms. Jane requires a new prescription for Ventolin® HFA. Pharmacy technicians can accept the verbal prescription from Dr. Jones over the phone independent of the pharmacist.
Transferring prescriptions†	Pharmacy A calls Pharmacy B to request a prescription transfer for Ms. Jane. Pharmacy technicians can complete the transfer independent of the pharmacist.
Completing final technical checks for prescriptions	A patient presents to the pharmacy for a new prescription or to claim a refill. After the therapeutic check of the prescription performed by the pharmacist, during the dispensing process, pharmacy technicians can independently verify that the prescription vial contains the correct amount of the correct drug and that it is labelled correctly for the patient. The pharmacist can then give the prescription to the patient with full confidence that the prescription vial contains the accurate medication, quantity, and label.

\*Pharmacy technicians are required to follow Provincial Acts and Regulations that govern verbal prescriptions and transferring prescriptions.

†Amendments to the Food and Drug Act Regulations have been proposed to enable regulated pharmacy technicians to receive and provide prescription transfers; government approval of these amendments is still pending.

Pharmacy Regulatory Authorities.<sup>(1)</sup> At the provincial level, each regulatory college is responsible for instituting the required legislation in order to allow for regulation of pharmacy technicians and subsequently authorize pharmacy technicians to assume expanded roles.

Pharmacy technicians are expected to make meaningful impact on patient care in community, hospital, and long-term care settings. They will assume more responsibilities with full implementation of their expanded scope of practice; this will include accepting verbal prescriptions, transferring prescriptions, and completing the final technical check for prescriptions (Table 1).

The evolution of the pharmacy profession is creating exciting opportunities for both pharmacists and pharmacy technicians to improve patient care. Pharmacy technicians are in a unique position to help pharmacists maximize patient encounters and achieve desired therapeutic outcomes. However, the steps required to integrate the expanded roles of pharmacy technicians into daily workflow need to be coordinated with all pharmacy staff members. If they are not, near misses or medication incidents due to miscommunication, lack of trust, and inconsistency are more likely to occur.

**Understanding medication safety and medication incidents**

"People working in health care are among

the most educated and dedicated workforce in any industry. The problem is not bad people; the problem is that the system needs to be made safer."<sup>(2)</sup>

Integrating the technical checks performed by pharmacy technicians with the therapeutic verifications done by pharmacists is meant to ensure that patients will receive appropriate and effective medication therapy. On the other hand, establishing a culture of patient safety in the work setting is also essential to improve medication safety and overall patient care. Healthcare practitioners who embrace a culture of patient safety recognize that pharmacists and pharmacy technicians are human, and therefore mistakes are possible.<sup>(3)</sup> It is impossible to expect that humans will deliver a perfect performance all the time. In fact, accidents or mistakes are typically related to flaws in the system (eg, the environment or the work setting) and human errors should be expected as part of any work environment. To prevent mistakes from happening in a pharmacy setting, we need to develop a system that is resilient to expected human errors. First, we need to apply a system-based approach to handling medication incidents and move way from the traditional mentality of "blame and shame." If a medication incident is discovered, we should do the following:

- Acknowledge in a positive way the staff member(s) who reported the incident

- (instead of penalizing them), so that everyone in the pharmacy team is aware of the event and can learn from it.
- Look into the potential causes or contributing factors in the work setting or the environment (that is, the medication distribution system) that may have allowed the incident to happen (instead of finding who's to blame).
  - Be aware that errors occur everywhere (as do near misses). Hence, we need to work together as a team to find out why the incident occurred, what the contributing factors may be, and what changes or improvements can be made in the workflow or the environment in order to prevent

similar incidents from happening again. Some of the potential or typical contributing factors of medication incidents in a community pharmacy are look-alike or sound-alike drug names, labelling and packaging issues, dangerous abbreviations, illegible handwriting, miscommunication between staff, and lack of independent double checks.<sup>(3)</sup>

**Analysis of case study**

The opening scenario illustrates a medication incident that can complicate the integration of pharmacy technicians into pharmacy practice. The high rate of medication incidents that occur in pharmacy

settings is often due to many uncontrollable variables.<sup>(4)</sup> After a medication incident occurs, healthcare professionals need to resolve any immediate patient-related concerns and implement appropriate safeguards that address contributing factors. The following sections refer to the opening scenario. Let's discuss key learning points involved in handling medication incidents.

*Learning Point 1: How should Derek prepare and deliver the disclosure for Mr. Smith?*

If a medication incident results in harm (regardless of the degree), healthcare providers are recommended to take

**TABLE 2 - Disclosing a medication incident to the patient or family<sup>(5)</sup>**

Stages	Recommendations	Examples relating to case study
<b>Step 1:</b> Is disclosure of a medication incident appropriate or necessary?	<ul style="list-style-type: none"> <li>• Decide if disclosure will have meaningful benefits for the patient and healthcare professionals.</li> </ul>	Mr. Smith's wife was harmed (ie, hyperglycemia resulting in a visit to the emergency department) due to the medication incident. Disclosure is appropriate because it helps Mr. Smith understand the events that led to his wife receiving the wrong medication.
<b>Step 2:</b> Preparing the disclosure	<ul style="list-style-type: none"> <li>• The most responsible healthcare provider who is involved in direct patient care facilitates the disclosure process.</li> <li>• All healthcare providers involved in the medication incident are prepared to discuss relevant events to the patient and family members.</li> <li>• The disclosure takes place at a time convenient for the patient and family members.</li> <li>• The disclosure takes place in person with the patient and family members.</li> <li>• The location of the disclosure should be private and free of interruptions.</li> <li>• Adequate time should be set aside to allow a complete discussion about the medication incident.</li> </ul>	As the most responsible healthcare provider, Stacey should be taking the lead to disclose the events to Mr. Smith. However, the medication incident has caused Stacey to lose focus of the situation. Fortunately, Derek is also prepared to discuss the medication incident with Mr. Smith. Mr. Smith returns to the pharmacy unexpectedly. This makes it difficult to plan an appropriate time and place for the disclosure. In this situation, Stacey and Derek need to direct Mr. Smith to a private area for the disclosure. If Mr. Smith's unexpected arrival complicates the disclosure, Stacey and Derek need to make further arrangements to continue the disclosure at a time and place convenient for everybody.
<b>Step 3:</b> Disclosure	<ul style="list-style-type: none"> <li>• Focus on the events that led to the medication incident.</li> <li>• Events are clearly explained using clear and understandable terminology.</li> <li>• Prepare to answer questions related to the medication incident.</li> <li>• Use "active listening" skills to establish a connection with patient and family members.</li> </ul>	Possible script: "Hi Mr. Smith, I want to take a moment to discuss the events that led to your wife getting the wrong medication. After we received Mrs. Smith's prescription, it was correctly entered into the computer system. However, there was a backlog of new prescriptions that caused me to rush and pick the incorrect medication that looked similar to the one that was supposed to be given to your wife. After Stacey finished with a medication consult with another patient, she saw you waiting and assumed the medication I selected was for you and not for your wife ...."
<b>Step 4:</b> Apology	<ul style="list-style-type: none"> <li>• Offer an apology that communicates genuine sincerity about the medication incident.</li> </ul>	Possible script: "At this time I just want to say Stacey and I are both very sorry about this whole situation ...."
<b>Step 5:</b> Continued feedback	<ul style="list-style-type: none"> <li>• Discuss future steps to avoid similar events from occurring in the future.</li> <li>• Communicate new findings about the medication incident to the patient and family members.</li> <li>• Provide ongoing support to the patient and family members.</li> </ul>	Possible script: "Although we can't change the past, we assure you that steps are being taken to prevent this from happening again. The medications that were mixed-up are no longer stored next to each other. Also, there are stickers that help us easily distinguish the two products. More importantly, we have a new independent double check system to make sure the right patient receives the right medication. We feel terrible about what has happened. Please know that everything is being done to make sure this does not happen again. If you need more information or want to talk to us, feel free to call the pharmacy or drop by in person."

TABLE 3 - Providing support for “the second victim”<sup>(6)</sup>

Support initiatives	Recommendations
Open recognition of the second victim	Develop a systematic approach to support pharmacy team members after a medication incident
Appropriate reassurance from pharmacy staff	Prevent negative reaction from pharmacy staff by increasing staff awareness and recognition of the issue and offering empathy
Opportunity to debrief about the medication incident	Pharmacy staff involved in the incident should have the opportunity to discuss the incident with the pharmacy manager, other staff members, or peers, and information and support should be provided
Professional support	Involve trained counsellors to reduce long-term emotional and psychological burden

immediate action or make arrangements to discuss the situation with the patient. The action plan should be patient-oriented to begin with. Every disclosure will be different based on the medication incident and the patient involved. A five-step approach is outlined in Table 2.

*Learning Point 2: What steps should be taken to ensure Derek receives appropriate support from staff and management?*

Caregivers or healthcare providers are often not recognized as “victims” after a medication incident. However, medication incidents can cause healthcare professionals to experience substantial emotional burden.<sup>(6)</sup> For this reason, patient safety literature uses the term *second victim* to describe the psychological impact of medication incidents from the healthcare perspective.<sup>(6,7)</sup> As the second victim, healthcare professionals involved with medication incidents can often feel shame, guilt, anger, and self-doubt.<sup>(6)</sup>

Possible human error is unavoidable, and often inevitable, when processing prescriptions. As newly regulated healthcare professionals with expanded roles and responsibilities, pharmacy technicians are more likely to be involved in near misses or medication incidents. This may potentially compromise continuous professional development and self-esteem. Pharmacy managers are encouraged to develop appropriate strategies or policies in order to minimize the emotional burden of the second victim in any medication incidents. These proactive or continuous quality improvement measures will ensure pharmacy team members (including pharmacy technicians) receive the

necessary emotional, psychological, and practical support.

*Learning Point 3: How to identify immediate or underlying causes of the medication incident. What happened? Why did it happen?*

As previously mentioned, mistakes are typically related to flaws in the medication distribution system. Referring to the opening scenario, the following contributing (both human and environmental) factors were likely involved in the “incorrect medication” incident of Mrs. Smith’s prescription.

- **Workload or interruptions.** The incident happened on an unexpectedly busy night. Typical workflow was interrupted by unanticipated downtime of the online third-party billing system. Distractions and unforeseen multitasking demands might create a challenge to the human limits and result in preventable errors in the dispensing process.
- **Look-alike or sound-alike drug names.** The drug names NovoRapid® Penfill (insulin aspart) and Novolin®ge 30/70 Penfill (insulin injection 30%; insulin isophane 70%) do look alike, to some extent, especially when we are in a rush or multitasking.
- **Look-alike labelling or packaging.** The labelling and packaging of NovoRapid® Penfill (insulin aspart) and Novolin® ge 30/70 Penfill look quite similar. They can easily be mixed up, especially if they are stored side-by-side in the fridge.
- **Independent double check for high alert drugs.** Insulin is known to be one of the top 10 drugs most frequently reported as causing harm due to medication error.<sup>(8)</sup> The dispensing of Novolin®ge 30/70 Penfill (insulin injection 30%; insulin isophane 70%) did not really undergo an independent

double check process. The prescription was entered by the pharmacist, who also selected the product from the fridge (as part of the dispensing process). With distractions (such as constant telephone calls) or in a rushed situation, it is possible that human factors, such as confirmation bias (explained below), might influence the checking process. In this case, the pharmacy technician assumed that the Penfill package that was placed on the dispensing counter by the pharmacist was the correct medication and signed off on it.

- **Information provided to patient delegate.** Typically, prescription counselling for the patient or the patient delegate at the pick-up counter or the private counselling area should be the final gate-keeping step to communicate and double check that the right medication has been provided to the right patient. However, on account of a rushed situation, this step was omitted.
- **Confirmation bias.** As human beings, confirmation bias (which leads us to see information that confirms our *expectation* rather than what’s actually there), can be inevitable, especially when we are under stress or confronted with many distractions in a busy environment. In the opening scenario, the pharmacist (Stacey) saw Mr. Smith in the pharmacy and expected that he was here for his usual medication (Novolin®ge 30/70 Penfill). Her confirmation bias simply led her to ratify, rather than challenge, her expectation.

*Learning Point 4: How to prevent similar incidents from happening again in the future.*

From the patient’s (or the family’s) point of view, whenever harm occurs in a medication incident, it is important for them to know the following: the facts (refer to Learning Point 1 and Table 2); the possible causes, ie, why the incident happened (refer to Learning Point 3); that the healthcare provider and the pharmacy are sorry for what happened (refer to Learning Point 1 and Table 2); and what steps will be taken to prevent similar incidents in the future (refer to Table 4).<sup>(5)</sup>

Error prevention strategies should be system-based, with an ultimate goal of making the practice setting safer and more user-friendly, while taking into consideration that human factors and human errors are part of any work environment.<sup>(9)</sup> According to the error prevention principles,<sup>(10)</sup> the

TABLE 4 - Error prevention principles<sup>\*(10)</sup>

Contributing factors	Error prevention principles*	Application to opening scenario
Workload or interruptions	Rules and policies	Pharmacy management may set up a policy mandating that back-up support be available from front-store staff if the pharmacy is experiencing an unexpected high volume of prescriptions or unanticipated technical interruptions, etc.
Look-alike or sound-alike drug names	Reminders, checklists, and double checks	Display the Institute for Safe Medication Practices (ISMP) list of confused drug names ( <a href="http://www.ismp.org/tools/confuseddrugnames.pdf">www.ismp.org/tools/confuseddrugnames.pdf</a> ) at each dispensing workstation to educate and remind pharmacy staff about different pairs of look-alike and sound-alike drug names.
	Education and information	
	Automation and computerization	Providing there is financial or logistical availability, install barcoding technology into the dispensing workstations; in addition to the visual check of the Drug Identification Number (DIN) during dispensing, scanning the barcode on the inventory drug product may also serve as an independent double check.
Look-alike labelling or packaging	Automation and computerization	Same as above.
	Rules and policies	Pharmacy management may set up a policy to separate the storage of drug products with look-alike labelling or packaging (such as using dividers or baskets in the fridge to segregate the various types of insulin products or applying stickers to the product package in order to help pharmacy staff distinguish similar-looking drug products).
Independent double check for high alert drugs	Reminders, checklists, and double checks	Display the ISMP list of high-alert medications ( <a href="http://www.ismp.org/tools/highalertmedications.pdf">www.ismp.org/tools/highalertmedications.pdf</a> ) at each dispensing workstation to educate and remind pharmacy staff about drugs that are most frequently reported as causing harm due to medication incidents.
	Education and information	
	Rules and policies	Pharmacy management may set up a policy requiring that an independent double check process be performed by another pharmacy technician (or the pharmacist on duty if another pharmacy technician is not available) during the dispensing process of high alert medications.
Information provided to patient delegate	Education and information	While counselling on the prescription at the pick-up counter or private counselling area, initiate a dialogue with the patient or the patient's delegate regarding the medication that is being picked up. Very often, this can serve as an independent double check or gate-keeping step in order to ensure that the right medication is provided to the right patient.
Confirmation bias	Reminders, checklists, and double checks	Engaging another pharmacy team member to perform independent double checks during the dispensing process may often overcome confirmation bias of an individual staff member.

\*According to the error prevention principles,<sup>(10)</sup> in order of effectiveness, from high to low: automation and computerization; reminders, checklists, and double checks; rules and policies; education and information.

following strategies are listed in the order of effectiveness, from high to low:

- Forcing functions and constraints
- Automation and computerization
- Simplification and standardization
- Reminders, checklists, and double checks
- Rules and policies
- Education and information

Sometimes, solutions of a higher standard of effectiveness may not be applicable or logistically feasible, but pharmacy team members should strive for these high standards whenever possible.

### Beyond the pharmacy

What if the patient or the patient's family files a complaint against the pharmacy technician and the pharmacy team involved in the medication incident to the provincial

regulatory body? Will this result in disciplinary and punitive measures? According to data provided by the Ontario College of Pharmacists,<sup>(11)</sup> the majority of complaints about medication incidents do not result in referrals to the Discipline Committee. In fact, the Complaints Committee generally handles complaints about medication incidents from a remedial point of view rather than from a disciplinary or punitive approach, provided that the regulated member (eg, pharmacist or pharmacy technician) has acted and responded in the best interest of the patient or the patient's family as well as professionally, responsibly, and ethically when confronted with the medication incident, when disclosing the events related to the incident, and when subsequently

following up with the situation in a patient-oriented and system-based approach. Medication incidents should be viewed not only as learning opportunities for continuous quality improvement for pharmacy team members, but also as reminders of their professional obligations.<sup>(11)</sup>

### Conclusion

The medication distribution system, which involves multiple stages of prescribing, order entry, dispensing, administration, and monitoring, is known to be complex and vulnerable to errors. Human factors are inevitable in each of these stages, often leading to near misses and medication incidents. Therefore, system-based continuous quality improvement measures should be embraced in order to establish a

culture of safety and a work environment with safe medication practices that are resilient to human errors. As part of the pharmacy profession, pharmacy technicians can play a pivotal role in facilitating quality improvement processes in pharmacy practice.

## REFERENCES

1. National Association of Pharmacy Regulatory Authorities (NAPRA). Professional competencies for Canadian pharmacy technicians at entry to practice. Ottawa, ON: NAPRA; 2007. Available from: [http://napra.ca/pages/Practice\\_Resources/](http://napra.ca/pages/Practice_Resources/)

pharmacytechniciancompetencies.aspx.

2. Institute of Medicine. To err is human: building a safer health system. Washington, DC: National Academies Press; 2000.

3. Ho C, Hung P. Keep it safe: community pharmacist development and implementation of strategies to improve patient safety. *Pharmacy Pract* 2010;26(6): 39-45.

4. Witte D, Dundes L. Prescription for error: process defects in a community retail pharmacy. *J Patient Saf* 2007;3:190-4.

5. Canadian Patient Safety Institute (CPSI). Canadian disclosure guidelines: Being open with patients and families. Edmonton, AB: CPSI; 2011. Available from: <http://www.patientsafetyinstitute.ca/english/toolsresources/disclosure/pages/default.aspx>.

6. Wu AW, Steckelberg RC. Medical error, incident investigation and the second victim: doing better but feeling worse? *BMJ Qual Saf* 2012;21:267-70.

7. Scott SD, Hirschinger LE, Cox KR, McCoig M, Brandt J, Hall LW. The natural history of recovery for the health care provider "second victim" after adverse patient events. *Qual Saf Health Care* 2009;18:325-30.

8. ISMP Canada. Top 10 drugs reported as causing harm through medication error. *ISMP Canada Safety Bulletin* 2006;6:1-2. Available from: <http://www.ismp-canada.org/download/safetyBulletins/ISMPCSB2006-01Top10.pdf>.

9. Ho C, Poon C. Preventing medication order entry errors: A guided approach to solution development in community pharmacy practice. 2011 Jun 17. [www.CanadianHealthcareNetwork.ca](http://www.CanadianHealthcareNetwork.ca).

10. Grissinger M. Medication error-prevention "toolbox." *P&T* 2003;28(5):298.

11. Guogui S. Do medication errors result in a referral to the Discipline Committee? *Pharmacy Connection* 2009;Mar/Apr:22-23.

## QUESTIONS

Please select the best answer for each question or answer online at [www.CanadianHealthcareNetwork.ca](http://www.CanadianHealthcareNetwork.ca) for instant results.

1. Each of the following technical checks can be performed by registered pharmacy technicians, EXCEPT

- The appropriate amount of water is added to a bottle of amoxicillin 125 mg / 5 mL to reconstitute a 150 mL suspension.
- The prescription label on the bottle of amoxicillin 125 mg / 5 mL reflects the directions authorized by the prescriber.
- Amoxicillin is the drug of choice for the patient's medical condition.
- The number of refills of a prescription authorized by the prescriber is entered into the dispensing system.

2. A system-based approach to handling medication incidents includes each of the following, EXCEPT:

- Finding out who made the mistake(s) that led to the incident.
- Acknowledging the staff member(s) who reported the incident.
- Looking into the potential causes or contributing factors in the work setting or the environment that may have allowed the incident to happen.
- Being aware that errors happen everywhere, and working together as a team to implement changes or improvements in the workflow or the environment in order to prevent similar incidents from happening again.

3. In regards to disclosing a medication incident to a patient, which of the following is CORRECT?

- Healthcare professionals always need to disclose medication incidents to patients, regardless of patient outcomes.
- Disclosures should be done at a time convenient for the healthcare professional.

- Disclosures only involve managerial healthcare professionals and patients.
- Disclosures require a sincere apology from the healthcare professional explaining the medication incident.

4. Which of the following statements is FALSE in relation to events that take place BEFORE the disclosure?

- Only the most responsible healthcare provider can facilitate the disclosure process.
- All healthcare providers involved in the medication incident must be prepared to discuss relevant events to the patient and family members.
- The location of the disclosure should be private and free of interruptions.
- Adequate time should be set aside to allow a complete discussion about the medication incident.

5. Which of the following statements is TRUE in relation to events that take place DURING the disclosure?

- The disclosure focuses on blaming the person that caused the medication incident.
- The disclosure involves the healthcare professional describing the most likely pharmacological mechanism involved in the medication incident.
- The disclosure only focuses on the events that led to the medication incident.
- Healthcare professionals should immediately compensate the patient for his or her troubles.

6. Which of the following statements is FALSE in relation to events that take place AFTER the disclosure?

- Healthcare professionals are required to defer all future patient questions to a

neutral party to help the healing process.

- Healthcare professionals should provide ongoing support to the patient and family members .
- Healthcare professionals should discuss future steps to avoid similar events from occurring again.
- Healthcare professionals are encouraged to continue a positive relationship with the patient.

7. After a medication incident, the "second victim" refers to the

- Regulatory board member
- Family member
- Healthcare professional
- Drug manufacturer

8. Which of the following statements is TRUE in relation to supporting the "second victim" after a medication incident?

- Prevent open recognition
- Organize disciplinary hearings
- Encourage reassurance from staff
- Professional support is not required

9. A human factor that involves leading us to "see" information that confirms our expectation rather than to "see" information that contradicts our expectation is called:

- Internal bias
- Confirmation bias
- Selection bias
- Verification bias

10. The following contributing factors could be involved in a medication incident regarding the mix-up of Prednisone 5 mg and Prednisone 50 mg tablets.

- Look-alike labelling or packaging
- Confirmation bias
- Workload or interruptions

d) All of the above

11. Which of the following solutions would be the most effective in preventing drug name confusion due to look-alike/sound-alike drug names?

- a) Organize an information session to educate pharmacy staff members about various pairs of look-alike/sound-alike drugs
- b) Display the ISMP's list of confused drug names at each dispensing workstation to remind pharmacy team members.
- c) Set up an internal policy that requires an independent double check be performed by another pharmacy technician for all dispensing activities.
- d) Install a bar-coding technology into the dispensing workstations, so that in addition checking the Drug Identification Number (DIN) during dispensing, scanning of the bar-code on the inventory drug product may also serve as an independent double check.

12. Which of the following solutions is the least feasible logistically in a short time frame (eg, 1–3 months) in preventing drug name confusion due to look-alike/sound-alike drug names?

- a) Organize an information session to educate

- b) Display the ISMP's list of confused drug names at each dispensing workstation to remind pharmacy team members.
- c) Set up an internal policy that requires an independent double check be performed by another pharmacy technician for all dispensing activities.
- d) Install a bar-coding technology into the dispensing workstations, so that in addition to checking the Drug Identification Number (DIN) during dispensing, scanning of the bar-code on the inventory drug product may also serve as an independent double check.

13. It is important to initiate a dialogue with the patient or the patient's delegate regarding the medication that is being picked up, because

- a) This is part of customer relationship management.
- b) This is the best moment to explain to the patient other professional services that are offered by the pharmacy.
- c) This may serve as an independent double check or a gate-keeping step to ensure that the right medication is dispensed to

the right patient.

- d) This is part of the responsibilities of a regulated pharmacy technician.

14. Which of the following statements is false?

- a) In most cases, complaints about medication incidents result in remedial recommendations rather than punitive measures by the provincial regulatory body.
- b) The Complaints Committee of a provincial regulatory body will always refer complaints about medication incidents to the Discipline Committee.
- c) Medication incidents should be viewed as a reminder for pharmacy team members of their professional obligations.
- d) When handling a medication incident, it is important that the pharmacy team acts and responds in the best interest of the patient.

15. In order to create a work environment with safe medication practices that are resilient to human errors, we need to

- a) Establish a culture of safety.
- b) Encourage reporting and open discussion of near misses and medication incidents.
- c) Maintain system-based continuous quality improvement measures.
- d) All of the above.

## TECH talk CE

Presented by

pharmacy practice

Sponsored by:



### How to handle a medication error

1 CEU • MAY 2013

CCCEP # 1065-2013-688-I-T Tech.

Not valid for CE credits after May 12, 2014.

### Now accredited by the Canadian Council on Continuing Education in Pharmacy

- |            |            |            |             |             |
|------------|------------|------------|-------------|-------------|
| 1. a b c d | 4. a b c d | 7. a b c d | 10. a b c d | 13. a b c d |
| 2. a b c d | 5. a b c d | 8. a b c d | 11. a b c d | 14. a b c d |
| 3. a b c d | 6. a b c d | 9. a b c d | 12. a b c d | 15. a b c d |

First Name _____		Last Name _____	
Pharmacy Name _____			
Primary Licensing Province _____	Licence # _____	Secondary Licensing Province _____	Licence # _____
Home Address _____	City _____	Province _____	
Postal Code _____	Telephone _____	Fax _____	
Email _____		Year Graduated _____	

#### Type of practice

- Drug chain or franchise
- Banner
- Independent
- Mass merchandiser
- Grocery store pharmacy
- Hospital pharmacy
- Other (specify): \_\_\_\_\_

- Full-time technician
- Part-time technician

- Are you a certified technician?  
 Yes  No

#### Please help ensure this program continues to be useful to you by answering these questions.

1. Do you now feel more informed about "How to handle a medication error"?  
 Yes  No
2. Was the information in this lesson relevant to you as a technician?  
 Yes  No
3. Will you be able to incorporate the information from this lesson into your job as a technician?  Yes  No  N/A
4. Was the information in this lesson...  Too basic  Appropriate  Too difficult
5. How satisfied overall are you with this lesson?  
 Very  Somewhat  Not at all
6. What topic would you like to see covered in a future issue? \_\_\_\_\_

#### HOW TO ANSWER:

Answer ONLINE for immediate results at [www.CanadianHealthcareNetwork.ca](http://www.CanadianHealthcareNetwork.ca)

For information about CE marking, please contact Mayra Ramos at 416-764-3879 or fax 416-764-3937 or email [mayra.ramos@rci.rogers.com](mailto:mayra.ramos@rci.rogers.com). All other inquiries about Tech Talk CE should be directed to Tasleen Adatia at 416-764-3926 or [tasleen.adiatia@rci.rogers.com](mailto:tasleen.adiatia@rci.rogers.com).