Warning: corn-related allergens
Non-medicinal ingredients don’t appear on drug labels

The goal of every pharmacist involved in patient care is to help people improve their health. But most pharmacists don’t know that the combination of a little-known allergy and a lack of non-medicinal ingredient (NMI) information can cause serious harm.

The allergy is caused by corn-derived additives, which are found in many medications, but are generally not listed as an NMI on container labels or in product monographs. Corn is an inexpensive source for the sugars and cellulosics found in prescription drugs – even drug bottles may be made from corn. While corn is most common, other potential allergens such as potatoes and rice may also be used by drug manufacturers.

The following situation came to the CPBC’s attention, and is an example of what can happen even when a patient’s corn allergy is known.

**The situation**
A pharmacist and physician worked to find what they believed was a suitable product for a patient with a severe corn allergy; part of their research involved checking the product’s CPS monograph, which didn’t indicate corn derivatives. After being told that the product did not contain corn products, the patient took the drug while still in the pharmacy and proceeded to drive to work. Approximately 10 minutes later she started to have breathing problems and had to pull off the highway and administer emergency anaphylactic medication. She went to a hospital and was administered an IV solution, but the problem wasn’t solved: her blood pressure kept dropping and she was still having problems breathing.

In this situation, both drugs the patient received had corn-based ingredients.

**CPBC response**
When the CPBC was informed of the above adverse reaction, the college brought the issue of insufficient NMI labeling information to Health Canada’s attention. Health Canada replied that the product monographs it approves are a good source of NMI information; however, product monographs do not list the source of NMIs.

Health Canada’s online drug product database doesn’t include information on NMIs; the agency has told the college it plans to address the lack of NMI information with both its online drug product database and product monographs, but this will take some time to implement.

As for the CPS, many product monographs are not listed, and those that are do not include NMI sources, a further stumbling block for pharmacists checking for potential allergens. And prescription drug container labels do not contain this information because it is not mandatory.

“The lack of information available to pharmacists is a very serious problem,” says Sharon Kerr, CBPC quality outcomes specialist who has been in touch with Health Canada on this issue. “There is more ingredient information on cosmetic and shampoo labels than on the drug product labels pharmacists use to dispense prescriptions. Pharmacists don’t have easy access to important information that could prevent life threatening allergic reactions.”

continued on page 3

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**Olympic Rx plans**

Dan Klingspon, lower right, met recently with CPBC representatives Marshall Moleschi, Suzanne Solven, and George Budd. Mr. Klingspon is a B.C. pharmacist who will be organizing pharmacy services for the 2010 Olympic Winter Games.
Do you want to keep the KA as an option?

In British Columbia pharmacists have a legislated mandate to periodically demonstrate professional development. To meet this requirement we have the Professional Development and Assessment Program (PDAP). It is designed by pharmacists, refined by pharmacists, and best of all, achieved by pharmacists: 97 per cent of Cycle 1 participants successfully completed a knowledge assessment, learning and practice portfolio (LPP), OSCE, or practice audit.

Recently, questions and concerns regarding the knowledge assessment have been brought to the college’s attention. I have highlighted some of the answers below, the rest will be provided in an upcoming “FYI.”

- There are seven different KA exam forms, with between 65 and 70 questions. The questions on each form are fixed. Exams used in Cycle 1 will not be used in Cycle 2; however exam questions come from a common item bank and are used on different forms.
- The KA follows the same standards and processes as other national and international entrance and certification exams such as PEB, MCAT, and Ontario College of Pharmacists.
- The college uses a UBC testing specialist to carry out analyses to evaluate the quality of exam questions and review the reliability and validity of exam scores.
- The results of these analyses, along with the specialist’s recommendations, are used to ensure that differences in the exams are taken into account when determining examinees’ final scores.
- The specialist’s analyses is combined with comments from examinees which identify exam questions that might, in rare cases, be dropped before final scores are determined.
- This thorough process is done to ensure the best possible outcome for our registrants.

I wonder if underlying these questions is the desire to eliminate the KA as an option in PDAP. Remember, the KA is simply a screen and no one will lose their license because of their score. A registrant has three opportunities over six years to demonstrate professional development. If a registrant is still not successful, then a review will take place outside of PDAP. Realize that if the KA is eliminated, there will be only one tool left for the initial assessment, the LPP. Yes, we are actively exploring the development of a CE-based option, but it will take some time. While I do not know exactly what the CE option would look like, other provinces that have CE portfolios require pharmacists to earn 15 CE units every year. Our current choices are completed once every six years.

In addition, I would like to emphasize that we are committed to continually improving PDAP and reporting on its results. Constructive comments and questions are important and the college welcomes your feedback.

I think the real strength in our program is choice. Choice is the key to allowing pharmacists to select the tool that works best for them. To me it would be a real shame to lose that choice.
Pharmacist's registration permanently cancelled

Nizarali Dodhia defrauded PharmaCare; second offense

In November 2005 Nizarali Kanji Dodhia pleaded guilty in B.C. Supreme Court to charges of fraud over $5,000 contrary to section 380(1)(a) of the Criminal Code, and was sentenced in April 2006 to a two-year prison term. On January 4, 2007, a discipline panel of the College of Pharmacists of B.C. held a hearing to determine the college’s response to Mr. Dodhia’s guilty plea and conviction.

The discipline panel reviewed the circumstances behind the criminal case, and Mr. Dodhia’s history with the CPBC.

The November 2005 guilty plea stemmed from Mr. Dodhia’s activities between January 2000 and May 2002. While working as a practicing Vancouver pharmacist, Mr. Dodhia issued fraudulent claims to the province’s PharmaCare program for services ostensibly rendered to three patients in relation to the provision of diabetes test strips. The patients did not receive the diabetes supplies, but Mr. Dodhia billed PharmaCare for $77,209 for the purported service.

This was not the first time Mr. Dodhia acted in contravention of the Criminal Code or the Pharmacists, Pharmacy Operations and Drug Scheduling Act. In 1998 he was convicted for trafficking a narcotic and unlawfully selling a drug. For this Mr. Dodhia paid a $35,000 fine to the courts and was suspended from the CPBC registry for one year.

The discipline panel considered this past conviction in reaching its decision. Also taken into consideration were: letters of support from family members; his repayment of the money defrauded from PharmaCare; his guilty plea, which made a court trial unnecessary; and his resignation from the college.

The discipline panel was held pursuant to sections 54 and 56 of the Pharmacists, Pharmacy Operations and Drug Scheduling Act, which deal with discipline and the consequences of conviction for an offense relating to the practice of pharmacy and indictable offenses.

After assessing the case, the discipline panel reached its decision on January 31, 2007; Mr. Dodhia and his legal council declined an invitation to attend.

The panel decided to permanently cancel Mr. Dodhia’s CPBC registration, based on his:

- prior trafficking and unlawful drug sales conviction;
- discipline record with the college due to the above conviction and subsequent one-year suspension; and
- recent conviction, again related to professional practice, of fraud over $5,000.

The panel noted, “After considering all of the circumstances, there can be no doubt that Mr. Dodhia’s most recent actions show a serious and flagrant disregard for not only the standards of pharmacy practice but the criminal law. Unfortunately, it appears clear that Mr. Dodhia has not learned from his mistakes.”

Nizarali Dodhia has been removed from the CPBC registry.

Corn-related allergens

continued from front page

What you can do

Pharmacists are requested to use caution and be aware that many drugs and medications contain undisclosed potential allergens in the form of sugars, starches, and cellulosics.

Share the corn allergy example with prescribers, so they are aware of potential allergic reactions patients may face. This relatively unknown but potentially serious allergy highlights the need for pharmacists and other health-care professionals to be involved in ADR reporting.

At the end of this article, you’ll find the URL for Health Canada’s adverse drug reaction reporting form. Add it to the favourites list on your browser, and make it part of your pharmacy’s ADR reporting process. Also listed is a website for potential corn-based allergens. Share both websites with your patients, so they can play an active role in reporting adverse drug reactions and be aware of allergy-related NMIs and food products.

Survey – reply and win!

Express your interest in better NMI standards by taking a few minutes to fill out the corn allergy awareness survey inserted in this issue of ReadLinks. Not only can you win great prizes, but you will further the college’s communication with Health Canada on this topic: a survey-response summary will be forwarded to Health Canada to help advance the message that pharmacists want to know more about potentially harmful NMIs.


www.cornallergens.com

POSSIBLE CORN-BASED NMIs

A quick look at a few product monographs in the CPS reveals the following NMIs that could be derived from corn:

- carboxymethyl cellulose
- cellulose microcrystalline
- citric acid
- crosscarmellose
- caramel
- dextrose
- ethylcellulose
- fructose
- hydroxypropyl methylcellulose
- hypromellose
- lactose
- lactic acid
- lethicin
- MSG
- propylene glycol
- sorbic acid.
PRACTICE NOTES

Methadone security update

The college has updated the security requirements section of the Pharmacy Methadone Maintenance Guide. A revised preamble, which states the importance of community considerations in establishing effective security needs, is followed by a concise list of security features to guide methadone-dispensing pharmacies.

Pharmacists dispensing methadone for maintenance should familiarize themselves with the revised guide; pharmacists who dispense methadone for pain should review it as well.

The Pharmacy Methadone Maintenance Guide is posted on the college website. Methadone-dispensing pharmacists may also want to review information on storage cabinet providers available on the college website. For additional information, contact George Budd or Mary McClelland at 604-733-7440 or 1-800-663-1940.


“Prescriber not found”

Don’t make assumptions as to the reason why

Occasionally, pharmacists refilling prescriptions get a “prescriber not found” message on their PharmaNet screen. This may occur for a number of reasons, but it is the prescriber’s private matter. The College of Physicians and Surgeon of B.C. (CPSBC) suggests pharmacists inform the patient requesting the prescription refill that the physician is listed as “not prescribing” and that the patient contact the CPSBC for further information. Patients can call the physicians’ college at 604-733-7758 or 1-800-461-3008.

CSHP home-care guide

Located on society’s website

The Canadian Society of Hospital Pharmacists has produced a new document for pharmacists involved in home care. Guidelines on the Pharmacist’s Role in Home Care is posted on the CSHP website, and is accessible to members. It contains information useful to both hospital and community pharmacists.

Resources


Survey says: pharmacy tech initiative

Pharmacy managers reply in impressive numbers

Pharmacy managers who replied to the CPBC survey on pharmacy technicians provided a wealth of data that will help the college plan information sessions on the registration and regulation of pharmacy technicians.

Almost 750 community and hospital pharmacy managers replied—an impressive 74 per cent response rate. These managers told the college how many techs work in their pharmacies, and whether the techs received external training or were trained “on the job.” The following table provides a snapshot of the response data.

Starting this fall, the college will hold regional information sessions to provide more information on pharmacy technician registration and regulation. Keep an eye on your email, the college website, and upcoming ReadLinks for more information.

Responses to survey on pharmacy technicians

<table>
<thead>
<tr>
<th>Community pharmacies</th>
<th>Responses</th>
</tr>
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<tbody>
<tr>
<td>Managers reporting</td>
<td>74%</td>
</tr>
<tr>
<td>Managers reporting with technicians in pharmacies</td>
<td>93%</td>
</tr>
<tr>
<td>Technicians externally trained</td>
<td>47%</td>
</tr>
<tr>
<td>Technicians internally trained</td>
<td>53%</td>
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</tbody>
</table>

<table>
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<tr>
<th>Hospital pharmacies</th>
<th>Responses</th>
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<tbody>
<tr>
<td>Managers reporting</td>
<td>76%</td>
</tr>
<tr>
<td>Managers reporting with technicians in pharmacies</td>
<td>100%</td>
</tr>
<tr>
<td>Technicians externally trained</td>
<td>93%</td>
</tr>
<tr>
<td>Technicians internally trained</td>
<td>7%</td>
</tr>
</tbody>
</table>

Note: numbers are rounded.

Counterfeit drug awareness

Domestic instances few; foreign examples abound

A patient who enjoys the warmth and relaxation of Southeast Asia every winter tells you about that region’s unbelievably inexpensive erectile dysfunction drugs; another patient journeying to Africa for a wildlife safari asks about purchasing prescription drugs while away. Your response? Patient beware.

While Canada’s prescription and OTC drug supply chains are relatively safe, the same can’t be said for other countries, particularly in developing parts of the world. This reminder is included in Counterfeit Pharmaceuticals in Canada, a publication by the Criminal Intelligence Service Canada posted on the CPBC website (see listing below).

According to the publication, the World Health Organization estimates 10 per cent of global drug supply is bogus, with that number rising to 50 per cent in some South East Asian and African countries. However, this problem can strike close to home. In 2005, two Ontario pharmacies were charged with knowingly selling counterfeit medications. Furthermore, Canadian enforcement officials increasingly come across fake prescription drugs. In 2003, 14.8 kilograms of fake Viagra® were seized by Port of Vancouver officials.

Counterfeit Pharmaceuticals in Canada describes:

- The types of drugs most often counterfeited.
- Organized crime and bogus drug making and distribution.
- Details on the two Ontario incidences.
- Societal effects of counterfeiting, at home and abroad.

www.bcpharmacists.org/pdf/counterfeit_pharmaceuticals_e.pdf
**Child drug safety study**

*Dr. Bruce Carleton has leading role*

Dr. Bruce Carleton, head of the pharmaceutical outcomes program at B.C. Children’s and Women’s Hospitals, is part of a study examining new ways to detect and prevent adverse drug reactions in children.

The Genotype Specific Approaches to Therapy in Childhood (GATC) study builds on research that has identified a strong connection between genetics and childhood ADRs. The $8 million study is being run from the Child and Family Research Institute at the hospital where Dr. Carleton works. The study will analyze saliva and blood DNA samples taken from children across the country.

Researchers hope to answer this question: why do some children have no reaction to a correctly prescribed drug, while their peers experience serious, and sometimes fatal, side effects to the same treatment?

For instance, a *Vancouver Sun* article noted that 20 to 40 per cent of children with brain or bone cancer have hearing loss after taking cisplatin. But 60 to 80 per cent of similarly treated children have no reaction.

The safety and efficacy of juvenile medications is a little investigated area of pharmacology. Dr. Michael Hayden, a Vancouver genetics specialist taking part in the GATC study told the *Vancouver Sun*, “Children have been neglected in drug development and 75 per cent of drugs used in children haven’t been tested in them.”

**Cranberry juice and INRs**

*Counsel on possible interactions*

With warmer weather approaching, drinking fruit juices is a popular way to replace lost fluids and “beat the heat.” But pharmacists with patients taking warfarin for INR maintenance should counsel them to drink cranberry juice in moderation, particularly if they have fluctuating INR levels.

A number of studies (see websites listed) have investigated warfarin and cranberry juice for negative interactions. While none have concluded with a definitive warning to avoid using the anticoagulant and drinking cranberry juice, some of these studies found that this beverage, if consumed in large quantities, could lead to elevated INR levels in some patients.

Questions and Answers

**Q** Two patients arrived at my pharmacy Sunday morning on their way to a walk-in clinic. They were going to South America early Monday morning, and called ahead to the clinic. They were told to pick up travel vaccines from a pharmacy and the clinic physician would inject them. They needed protection against both Hep A and Hep B. The male patient had the initial vaccination of Twinrix ® one month ago, but the female patient had never been vaccinated for either hepatitis strain. The patients didn’t meet the B.C. Centre for Disease Control guidelines for releasing the vaccine without a prescription, but I wanted to help them. Here’s what I did – was it right?

- I called the walk-in clinic physician for a prescription but there was no answer.
- I realized that even though these patients needed prescriptions, I could use my professional judgment and release the vaccines as emergency release prescriptions using my ID as the prescriber.
- I knew that even one dose of a single antigen for Hep A and Hep B given the day before travel provided some protection.
- The male patient needed to receive his second dose of Twinrix ® to enable him to be protected against Hep A and B, so I gave him an emergency prescription for one dose. I told him to get the clinic physician to write a prescription for his third and final Twinrix ® dose in five months.
- I thought the female patient would not be protected with one dose of Twinrix ® as the antigen count for Hep A (720 ELISA) is too low to confer protection. She would require two doses of Twinrix ® so the single antigen was the best choice. After consulting with her, I decided on a 1 mL dose of Havrix ™ 1440 (1440 ELISA Hep A), and a 1 mL dose of Energix-B ® (20ug Hep B). I told her to ask the clinic physician for one-month and six-month prescriptions for Havrix ™ 1440 and Energix-B ® to complete the series when she returned home.

**A** Well done - your professional judgment ensured positive patient outcomes.

**Q** What is the drug scheduling status of Dukoral ™?

**A** Dukoral ™ is a Schedule II product - no prescription required. However, to maintain a complete PharmaNet patient record, it is good pharmacy practice to sell Dukoral ™ as a pharmacist-generated prescription using your pharmacist ID as the prescriber. The patient and pharmacist will then know the date of the primary immunization. If a patient is returning to the area of risk, they will require a booster at three months. It is also good practice to ensure all vaccinations are entered on PharmaNet so that routine immunization schedules can be followed. Pharmacist-generated prescriptions for vaccinations should not be electronically forwarded to third-party payers.

**Q** Is Ranitidine 150 mg prescription or non-prescription?

**A** In B.C. Ranitidine 150 mg is still prescription only. This may change, however, for the time being it will remain as a prescription drug.
Is it good news or bad news? Health Canada is experiencing an increase in the number of reported adverse drug reactions. The federal agency received more than 10,500 new reports in 2006. While this is an increase of only about 100 more ADR cases than the previous year, it also coincided with a 43 per cent jump in the number of ADRs from other countries for drugs available in our nation, which came to Health Canada’s attention.

While over two-thirds of the 2006 domestic ADR reports submitted by drug and health-care product companies were categorized as serious, some experts see the overall reporting as a positive sign that health-care providers, patients, and other stakeholders are recognizing the seriousness of medication side effects.

ADR reporting is voluntary across the country, but Health Canada has been tracking a steady increase over the past few years. The agency doesn’t believe that more people are suffering from ADRs, but rather, more people are aware of the importance of reporting these events. Regardless, a Health Canada spokesperson told CanWest News Service, “We are aware that in most situations, there is considerable underreporting of adverse reactions.”
**Steps this pharmacist can implement to prevent this type of incident from happening again:**

1. Use a checking system to compare the DIN on the inventory container with the DIN on the computer-generated label.
2. Perform a visual check during the final checking process. Rather than relying on memory, compare the contents of the blister pack with the contents of the stock bottle to ensure you are dispensing the correct medication. Check the colour, shape, and markings of each tablet or capsule.

**Perinatal exposure to drugs**

*New guide complete resource for health professions*

CAMH (The Centre for Addiction and Mental Health) and the Motherisk program (Hospital for Sick Children, Toronto) will soon offer a new publication of interest to pharmacists.

*Perinatal Exposure to Psychotropic Medications and Other Substances: A Handbook for Health Care Providers* covers safe use and risks associated with medications and substances taken during pregnancy and breastfeeding. It is available at no cost.

Scheduled for publication in May 2007, the handbook can be ordered by contacting CAMH (see website listed). This comprehensive guide includes information on:

- Pregnancy myths and facts, and the use of psychotropic medications and substances.
- Key principles of caring for women with substance use or mental health issues.
- Screening for substance and medication use in pregnancy.
- Counselling and the therapeutic relationship.
- Effects of the following drugs:
  - Alcohol
  - Amphetamines
  - Antidepressants
  - Antiepileptic drugs (AED)
  - Antipsychotics
  - Benzodiazepines
  - Caffeine
  - Cannabis
  - Club drugs
  - Cocaine
  - Inhalants and solvents
  - Lithium
  - Other sedatives
  - Opioids (including methadone)
  - Tobacco (cigarettes).

The pharmacist involved could not explain why this error occurred and described that his usual blister pack checking procedure involves:

1. Checking the prescription labels against the patient’s blister pack medication summary sheet to make sure that the right medications are being dispensed.
2. Confirming that the number of tablets in each time slot matches the number indicated on the patient’s blister pack medication summary sheet.

**Situations like the one described above provide an excellent opportunity to reflect on your personal pharmacy practice and to make sure your pharmacy has a system in place to identify, prevent, manage, and report practice errors and omissions.**
Developing pharmacy practice: a focus on patient care

The following recent works explore two timely issues for pharmacy: providing care during emergency situations and the profession’s evolution away from dispensing and towards medication and disease-state counseling.

“Pharmacy practice in times of civil crisis: the experience of SARS and ‘The Blackout’ in Ontario, Canada” (Austin, Martin, and Gregory [2007]), Research in Social and Administrative Pharmacy, in press.


Over a dozen B.C. pharmacists presented at the 38th annual Canadian Society of Hospital Pharmacists conference in Toronto this year. Following are the session titles and their presenters.

Conference sessions

Pharmacy Technicians: Recognition as a Health Professional and the Regulatory Process in Canada (Alan Samuelson).

The Art and Science of Peerless Peer Review (Mary H.H. Ensom).

Acid-Base Disturbances – A piACIDly BASE-ic Approach to Interpretation, Diagnosis, and Treatment for Clinical Pharmacists (Sean Gorman).

Don’t Just Talk the Talk: Delivering Effective, Evidence-Based Presentations (Richard Slavik).

Home Care Pharmacists: Practices and Patient Outcomes from Coast to Coast (Carla Ambrosini – with Stacey MacAulay [New Brunswick] and Karen Cameron [Ontario]).

Who’s Your Daddy? A Conflict of Interest Discussion (Robin Ensom).

Toxicology 101 (Debra Kent).

Medication Safety: Practical Tips from a Pediatric Point of View (Roxane Carr and Don Hamilton).

Speaking to the Media: Tips on How to Get the Right Message Out; Well at Least Most of the Time (James McCormack).

Women’s Health Outcomes in an Ethnic Population: The Asian Women’s Health Clinic (Elaine Chong).

How Much “Value” is there in Clinical Practice Guidelines? (James McCormack).

Neuropathic Pain Management – Identify & Treat It (Aggressively) (Donna Buna).

Fellowships awarded

In addition to contributing to the conference sessions, B.C. pharmacists made their mark in another way: the following five were recognized with fellowship status from the society, for their noteworthy, sustained service and practice excellence in an organized health-care setting.

Mark Collins (Lion’s Gate Hospital).

Patricia E. Gerber (Children’s and Women’s Health Centre of B.C.).

Wendy Gordon (Royal Columbian Hospital).

Donald P. Hamilton (Children’s and Women’s Health Centre of B.C.).

Adil S. Virani (Fraser Health Authority).

Email dateline: CPBC

Sign up for pharmacy technician, eDrug info

The college will use email to keep registrants informed about two important initiatives underway: info sessions on pharmacy technician registration and regulation, and updates on the province’s eDrug initiative, which includes a revitalized PharmaNet.

Make sure you stay in the loop on these and other important items.

Updating your email address is simple: log on to the college website, click on the eServices logo, and follow the prompts. Can’t remember your eServices ID? It is printed on all personally-addressed CPBC documents.

Once you’ve updated your email address, you will be entered into a draw for one of two $100 prizes. The latest CPBC registrants to win are Mary Troje and Karen Hill!

COLLEGE AWARDS

WANTED:
TOP-NOTCH PHARMACISTS!

Fill out the college awards nomination form included with this issue of ReadLinks and recognize a B.C. pharmacist for their practice excellence. The form is also located on the college website home page.

Nomination deadline: June 30

www.bcpharmacists.org