

Confusing Calcium Product Labels Leads to Hospitalizations

Calcium supplements are available for purchase without a prescription but may also be prescribed or recommended by health care providers.

Calcium products do not display the tablet strength in a consistent format on the front panel in terms of either the elemental calcium ("calcium") or the calcium salt content. Adding to this variability is the fact that some products are labelled as calcium salt, but the displayed strength reflects the elemental calcium content, or vice versa.

Misinterpretation of the product label because of inadequate or confusing labelling practices is problematic and can lead to over- or under-dosing and harmful outcomes.

In three separate incidents reported to ISMP Canada, calcium carbonate 1250 mg (a calcium salt providing elemental calcium 500 mg) was prescribed for a patient discharged from hospital post-parathyroidectomy or thyroidectomy. In each case, the patient took 2.5 tablets per dose, not realizing that the 500 mg presented on the primary display panel label reflected the tablet strength in terms of elemental calcium (such that one tablet would be sufficient for the prescribed dose). All three patients required admission to the intensive care unit for treatment.

Analysis of the incidents with calcium carbonate indicated that the key contributing factor was confusing or misleading information on the front panel of the label. There is a need for all stakeholders to join together to ensure practices are improved. Key recommendations include:

Manufacturers

- The front panel label should clearly state the strength of both forms, for example: "elemental calcium 500 mg (provided in each calcium carbonate 1250 mg tablet)".

Prescribers

- Provide clear written instructions for the patient; these should include the elemental calcium content, the preferred salt (if any), the dose, and the frequency of use.
- Suggest that the patient speak to their pharmacist for assistance when selecting a calcium product and calculating the number of tablets that will provide the recommended dose.

Community Pharmacists

- When possible, stock only those brands of calcium products that provide a clear and accurate description of the calcium content on the front panel label.
- Clarify the dose with the prescriber if it is unclear whether a prescription is expressed in terms of elemental calcium or calcium salt (and if so, which calcium salt).

This bulletin shares incident examples to raise awareness of the risks associated with the lack of standardization of calcium product labels, as well as to highlight opportunities to improve labelling practices. For more details, see the full ISMP Canada [Safety Bulletin](#).

Article provided by Ambika Sharma, Medication Safety Specialist, ISMP Canada.

[Read more](#)



MSSA and Permit Renewal

Any pharmacies that have not yet completed a Medication Safety Self-Assessment (MSSA) or have an outstanding MSSA (last MSSA submitted on or before Jan. 1, 2020) will not be able to renew their pharmacy permit.

Therefore, to complete permit renewal, which runs from Sept. 15 to Nov. 1, pharmacies' MSSAs must be up to date.

The MSSA is a SCPP Regulatory Bylaw requirement as per Part I, subsection 12(2)(b), and must be completed at least once every two years. On a weekly basis, ISMP Canada provides SCPP a list of the pharmacies that have completed an MSSA and the date completed.

This list also includes which pharmacies have not yet completed an MSSA and those that are still in progress. Pharmacy managers can check the date of their last MSSA submission, as well as the due date for their next MSSA submission, in the Membership Information section on the homepage of their Pharmacy Manager Portal.

If the information in your Pharmacy Manager Portal is incorrect, please contact info@saskpharm.ca. For information on how to complete the MSSA, please see the [Medication Safety Self-Assessment \(MSSA\) Quick Start Guide](#).

The date of the last MSSA can also be found on the Community Pharmacy Incident Reporting (CPIR) system, in the MSSA section (last complete MSSA has an arrow beside the date).

Focus on Continuous Quality Improvement Plans

Having a Continuous Quality Improvement (CQI) plan within the pharmacy is not only a bylaw requirement but also helps to focus attention on any potential issues within the pharmacy that should be addressed in order to improve patient safety.

As SCPP continues to roll out Quality Improvement Reviews (QIRs), the Field Operations team is noticing that the most common deficiency during QIRs is an incomplete CQI plan. Therefore, to assist pharmacy staff in ensuring they have a complete CQI plan, SCPP has created a CQI Plan Cheat Sheet. Pharmacies are encouraged to print the cheat sheet and have it handy when developing, monitoring, and updating their CQI plan. Please see below a copy of the cheat sheet. To access a copy for printing, [click here](#).

A complete CQI plan includes discussion and follow-up for relevant medication incidents, one or two improvement initiatives identified from the MSSA, and any safety training that is being planned for pharmacy staff.

SCPP is recommending that the CQI plan be documented using the Quality Improvement tool on the CPhIR website. This tool allows the pharmacy staff to not only document the CQI meeting, but also create the CQI plan. It also allows for efficient monitoring and updating of the CQI plan.

Within the tool, there is the ability to import new medication incidents and MSSA improvement initiatives for discussion, and to update any previous medication incidents or MSSA improvement initiatives. Safety training can also be added or updated.

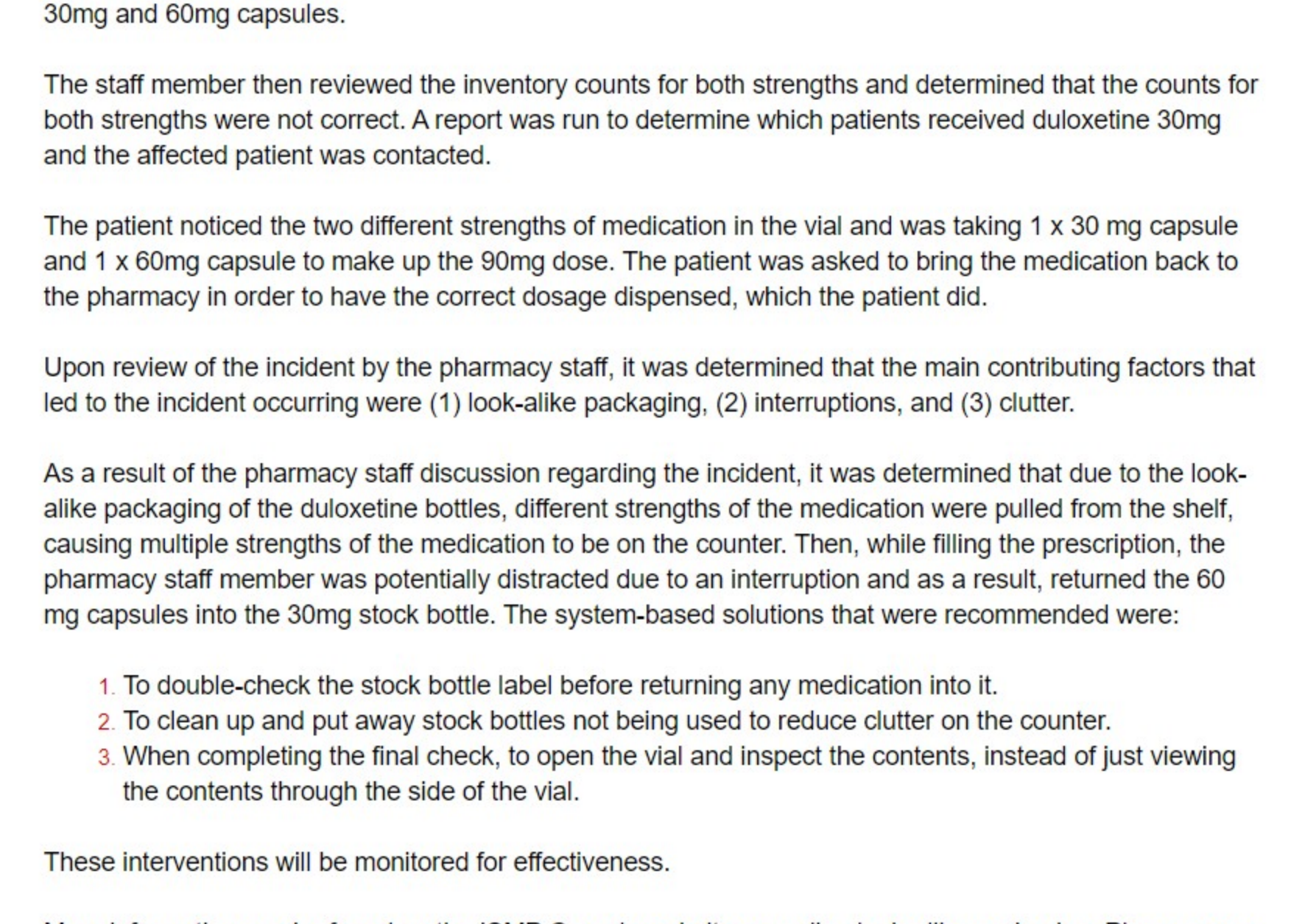
Every pharmacy must have an up-to-date CQI plan that is regularly monitored and updated. For more information on documenting the CQI meeting activities and CQI plan, please see the video icon on the Quality Improvement tab on the CPhIR website or [see this link](#).

Continuous Quality Improvement (CQI) Plan Cheat Sheet

Note: The Quality Improvement tab in CPhIR is the recommended place to document your CQI Plan

Have you included in your plan:

- New incidents discussed during the CQI meeting?
- The action plans created for each incident?
- Updates to previously discussed incidents and their action plans?
- New MSSA Improvement Initiative(s) identified from the most recent MSSA?
- The action plans created for the MSSA improvement initiative?
- Updates to previous MSSA improvement initiatives?
- Upcoming staff safety education?



Shared Learning Opportunity

Look-alike/Packaging - Environmental, Staffing or Workflow Problem

A refill prescription was in the process of being prepared for a patient for duloxetine 30 mg capsules (dose 90mg). The pharmacy staff member poured the medication from the duloxetine 30mg stock bottle onto the counting tray and noticed that there were two different strengths of duloxetine in the bottle, specifically 30mg and 60mg capsules.

The staff member then reviewed the inventory counts for both strengths and determined that the counts for both strengths were not correct. A report was run to determine which patients received duloxetine 30mg and the affected patient was contacted.

The patient noticed the two different strengths of medication in the vial and was taking 1 x 30 mg capsule and 1 x 60mg capsule to make up the 90mg dose. The patient was asked to bring the medication back to the pharmacy in order to have the correct dosage dispensed, which the patient did.

Upon review of the incident by the pharmacy staff, it was determined that the main contributing factors that led to the incident occurring were (1) look-alike packaging, (2) interruptions, and (3) clutter.

As a result of the pharmacy staff discussion regarding the incident, it was determined that due to the look-alike packaging of the duloxetine bottles, different strengths of the medication were pulled from the shelf, causing multiple strengths of the medication to be on the counter. Then, while filling the prescription, the pharmacy staff member was potentially distracted due to an interruption and as a result, returned the 60 mg capsules into the 30mg stock bottle. The system-based solutions that were recommended were:

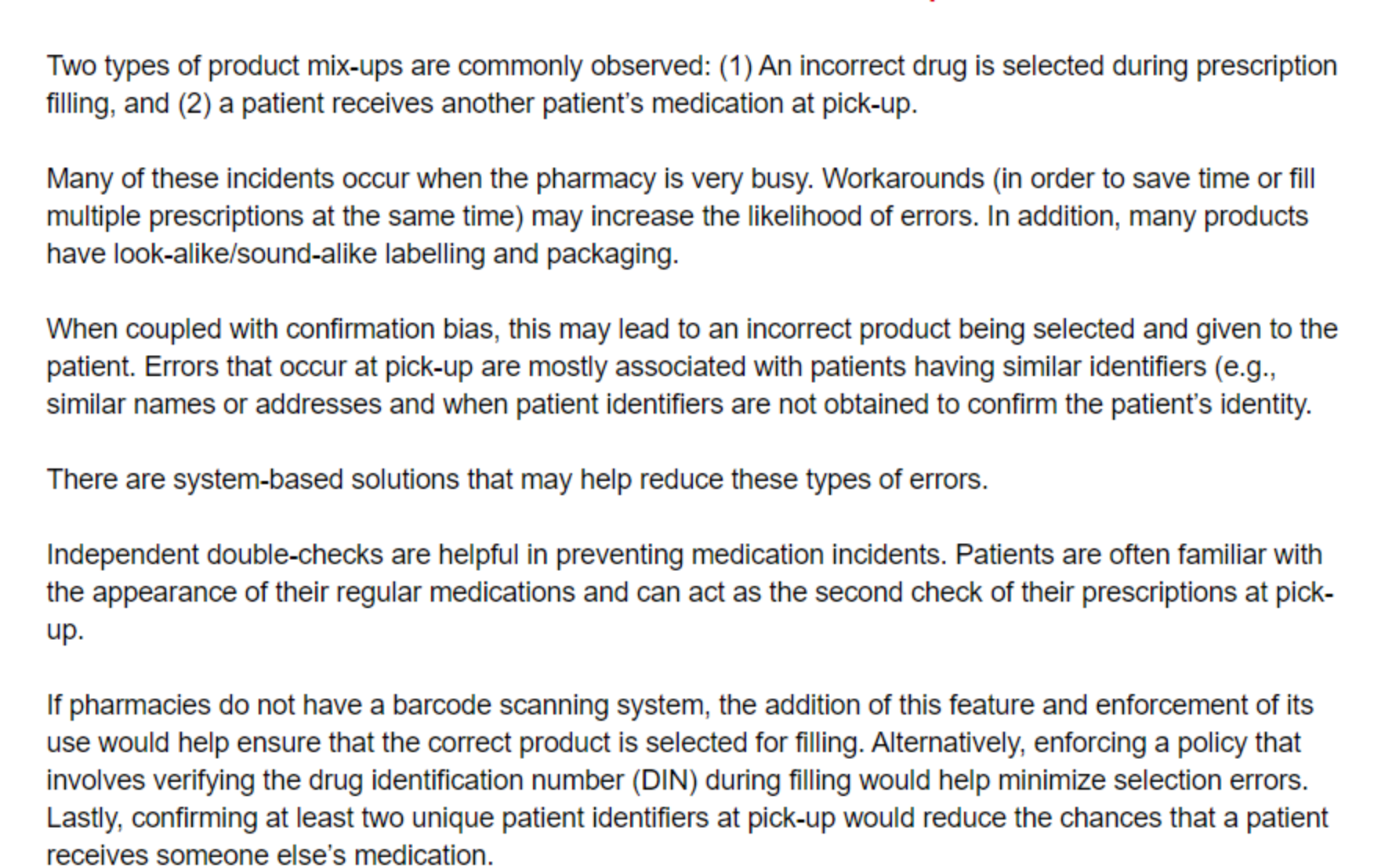
1. To double-check the stock bottle label before returning any medication into it.
2. To clean up and put away stock bottles not being used to reduce clutter on the counter.
3. When completing the final check, to open the vial and inspect the contents, instead of just viewing the contents through the side of the vial.

These interventions will be monitored for effectiveness.

More information can be found on the ISMP Canada website regarding look-alike packaging. Please see a short presentation under the CE and Resources section of the CPhIR website - ["A multi-incident analysis of medication incidents related to look-alike packaging"](#) – January 2017.

This incident was reported here with the involvement and permission of the Saskatchewan community pharmacy.

[Read more](#)



Incidents that Occur Due to Product Mix-Up

Two types of product mix-ups are commonly observed: (1) An incorrect drug is selected during prescription filling, and (2) a patient receives another patient's medication at pick-up.

Many of these incidents occur when the pharmacy is very busy. Workarounds (in order to save time or fill multiple prescriptions at the same time) may increase the likelihood of errors. In addition, many products have look-alike/sound-alike labelling and packaging.

When coupled with confirmation bias, this may lead to an incorrect product being selected and given to the patient. Errors that occur at pick-up are mostly associated with patients having similar identifiers (e.g., similar names or addresses and when patient identifiers are not obtained to confirm the patient's identity).

There are system-based solutions that may help reduce these types of errors.

Independent double-checks are helpful in preventing medication incidents. Patients are often familiar with the appearance of their regular medications and can act as the second check of their prescriptions at pick-up.

If pharmacies do not have a barcode scanning system, the addition of this feature and enforcement of its use would help ensure that the correct product is selected for filling. Alternatively, enforcing a policy that involves verifying the drug identification number (DIN) during filling would help minimize selection errors. Lastly, confirming at least two unique patient identifiers at pick-up would reduce the chances that a patient receives someone else's medication.

[Table 5](#) illustrates examples of harm incidents that were associated with product mix-ups.

Table 5. Product Mix-Up Incident Example

Product Mix-Up

Harm incidents occur when an incorrect product was selected, filled, and/or given to the patient.

Incident Example

A prescription was brought in by a patient for three different medications. One of them was a narcotic. As the pharmacy was busy, the pharmacist counted the medications, while the student was entering the prescription into the dispensing software. The pharmacist noticed that a different brand of narcotic was entered and billed to the third-party insurance and hence a return-to-stock process is needed. However, one of the three medications was incorrectly returned to the narcotic stock bottle. As a result, the patient received two different brands of narcotic medication and did not receive one of his other medications. The error was discovered when the pharmacy was filling the same narcotic for a different patient.

The above information was reprinted from ISMP's Canada Report – COMPASS Harm Incidents Qualitative Analysis – July 2019, pages 8-9.

We want to hear from you!

One of the goals of COMPASS is to promote shared learning between Saskatchewan pharmacies regarding incidents, unsafe practices and other important issues to improve pharmacy care in Saskatchewan.

One way to promote shared learning would be to report an incident/error that occurred within your pharmacy. If your pharmacy has had an incident that would be a good learning opportunity for other Saskatchewan pharmacies, please forward it to SCPP Medication Safety at info@saskpharm.ca.

Any information regarding the pharmacy and the person who provided the details of the incidents/errors will be kept anonymous. The College encourages open sharing of incidents/errors so everyone can learn from them.

Statistics

Statistical reports are provided to bring awareness of the importance of identifying, reporting, and discussing medication incidents. A total of 33,343 incidents have been reported to the Community Pharmacy Incident Reporting (CPhIR) database between December 1, 2017, and June 30, 2021. The statistics below relate to this time period.

Outcomes

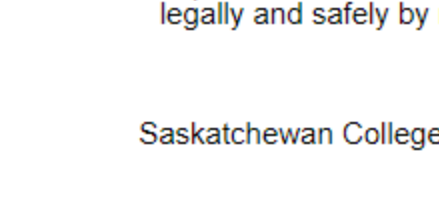
- **19,545** reported incidents had an outcome of NO ERROR/NEAR MISS, which means the incidents were intercepted BEFORE they reached the patient.
- **12,827** NO HARM incidents, which means the incidents reached the patient but did not cause harm.
- **957** reported incidents did result in HARM, with most of these in the category of MILD or MODERATE HARM. There have been 3 incidents reported with an outcome of DEATH.

Incident Types – Top Three

- Incorrect dose/frequency – **7,809**
- Incorrect quantity – **5,670**
- Incorrect drug – **5,580**

394 pharmacies have either started or completed their Medication Safety Self-Assessment (MSSA) online data entries.

904 Continuous Quality Improvement (CQI) meetings have been held.



The SMART Medication Safety Agenda

The topic of the latest edition of the SMART Medication Agenda is **Metformin**. All previous editions of the SMART Medication Safety Agenda can be found under the COMPASS link on the SCPP website under [COMPASS Newsletters](#).

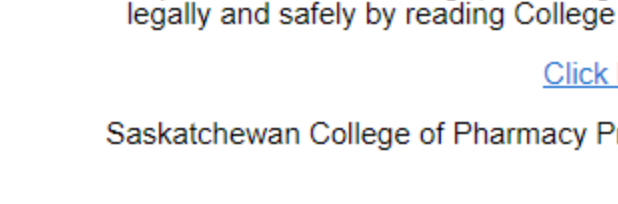
Contact

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The profession of pharmacy is continually evolving. Information in past publications may likely be outdated, and it is vital and incumbent on pharmacy professionals to seek out the most updated version of SCPP policies, guidelines and [bylaws](#) in more [recent publications](#), the [news section](#), and the [Reference Manual](#).

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