

COMPASS Program – How are we doing?

As we reach the four-and-a-half-year mark since the COMPASS Program became mandatory in all Saskatchewan community pharmacies and almost all pharmacies have had a Quality Improvement Review (QIR), this is a good time to look back on improvements that have been realized because of the implementation of COMPASS and how we are making patient care safer in Saskatchewan pharmacies.

In addition to the number of incidents reported and the type and outcome of incidents, there are four other statistics that are monitored by SCPP to determine any progress with our quality improvement efforts.

These four other statistics are:

- Comparative stats on prescriptions filled and incidents reported
- Average number of incidents reported per pharmacy reporting
- Percentage of pharmacies reporting
- Harm Incidents as a percentage of overall incidents

With respect to the comparative stats on prescriptions filled and incidents reported, there has been a decrease in the number of incidents reported per 100,000 prescriptions filled.

At the beginning of the program there were approximately 50 incidents reported per 100,000 prescriptions filled. The number of incidents has decreased to 25.2 per 100,000 prescriptions filled.

One explanation for this decrease could simply be that the number of incidents that are occurring has decreased; however, it is also possible that the type of incident being reported has changed. At the beginning of the program pharmacies were reporting all incidents, both actual incidents and near misses, but with increased workloads, they may now only be reporting actual incidents. This reduction is encouraging and a signal of safer community pharmacies.

The average number of incidents reported per pharmacy reporting has also decreased since the beginning of the COMPASS program.

Initially, each pharmacy reporting would report, on average, 4.2 incidents. This has decreased to about an average of 2.9 incidents per pharmacy reporting. An explanation for this is that pharmacy staff have a decreased amount of time to report incidents and have prioritized incidents. This is supported by a slight shift from the majority of incidents reported per month being near misses to the majority now being No Harm. It is also possible that pharmacies have fewer incidents to report due to strategies being implemented to prevent incidents.

There has also been a decrease in the percentage of pharmacies reporting. Initially, there were approximately 48 per cent of pharmacies reporting incidents each month. The average dropped within a few months to 39.2 per cent of pharmacies reporting.

After another decrease the number of pharmacies reporting is currently 36.1 per cent. There is variability from month to month, but overall, the percentage remains around 36.1 per cent. An explanation for the variability in the percentage could be related to workload and whether staff have the time to report incidents or whether there are fewer incidents to report.

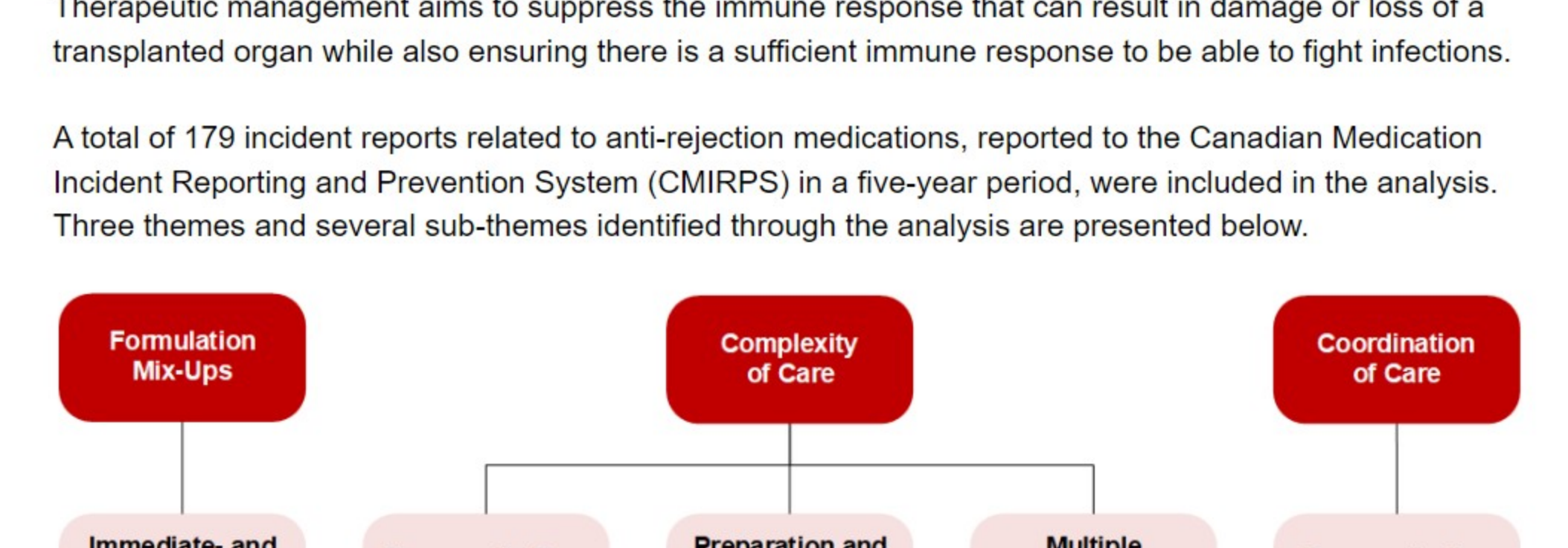
The last statistic that has seen some change since the implementation of the COMPASS program is harm incidents as a percentage of overall incidents. The overall percentage of harm incidents has increased since the implementation of the COMPASS program.

The initial percentage of harm incidents was 2.5 per cent. This percentage increased to 3.2 per cent in 2018 and increased again to 4.5 per cent in 2020. However, the actual number of harm incidents is not increasing, but remains steady; therefore, a possible explanation is the reduced number of overall incidents being reported as compared to the occurrence and reporting of harm incidents.

Pharmacy staff may be prioritizing the reporting of harm incidents and so, consequently, an increased percentage of harm incidents as per overall incidents is seen.

The above statistics are encouraging and is showing that the implementation of the COMPASS program has not only increased awareness of system issues that are causing medication incidents, but also encouraged pharmacies to develop and implement strategies to mitigate these system issues, and this is having an impact on the number of incidents occurring and thus being reported.

Overall, the above statistics appear to show an improvement in safety in community pharmacies.



Anti-Rejection Medications: Analysis of Reported Errors

Patients who have undergone an organ transplant require multiple medications to prevent organ rejection. Therapeutic management aims to suppress the immune response that can result in damage or loss of a transplanted organ while also ensuring there is a sufficient immune response to be able to fight infections.

A total of 179 incident reports related to anti-rejection medications, reported to the Canadian Medication Incident Reporting and Prevention System (CMIRPS) in a five-year period, were included in the analysis. Three themes and several sub-themes identified through the analysis are presented below.



Key points from the analysis:

Knowledge gaps related to the differences in medication names, salt compounds, and formulations led to mix-ups between noninterchangeable products.

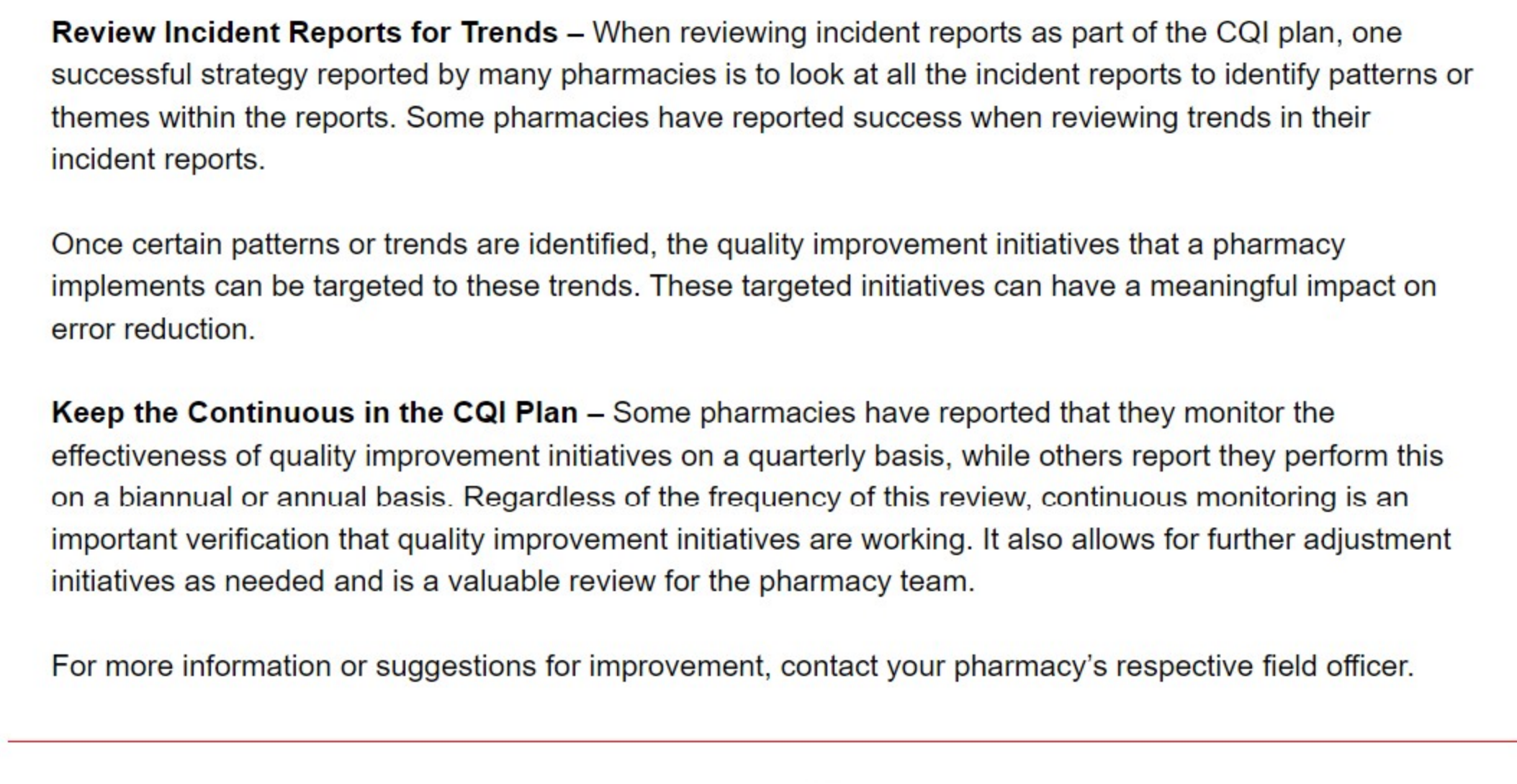
Errors most often occurred between immediate-release and extended-release tacrolimus products. Mix-ups between mycophenolate mofetil and mycophenolate sodium were also reported.

Cyclosporine and tacrolimus are both commonly used immunosuppressants with a narrow therapeutic index requiring regular therapeutic drug monitoring. Some errors related to the frequent dose changes often required to maintain targeted blood levels.

After a transplant, patients must take specific doses of multiple medications, at specific times, to prevent organ rejection. Several incidents described administration of partial doses and mix-ups between administration times. In other instances, the pharmacy team identified potential drug interactions with the many medications and adjusted the regimens accordingly.

Several incidents demonstrated the challenges with coordinated care among multiple health care providers within the hospital and in the community. Contributing factors included medication review discrepancies and ambiguous documentation.

This thematic analysis highlights areas of risk in the medication-use system and shares selected safety tips. [Read the full bulletin](#) for more details.



Continuous Quality Improvement – Helpful Tips

The following helpful tips are provided to assist pharmacy staff with their quality improvement efforts.

Continuous Quality Improvement Plan – A complete Continuous Quality Improvement plan involves discussion and documentation of three areas by the pharmacy team: incident report discussion and resulting plans for implementation of safety initiatives, MSSA improvement initiatives, and staff education. Any initiatives implemented in the pharmacy should also be monitored and documented for effectiveness as part of your CQI plan.

Review Incident Reports for Trends – When reviewing incident reports as part of the CQI plan, one successful strategy reported by many pharmacies is to look at all the incident reports to identify patterns or themes within the reports. Some pharmacies have reported success when reviewing trends in their incident reports.

Once certain patterns or trends are identified, the quality improvement initiatives that a pharmacy implements can be targeted to these trends. These targeted initiatives can have a meaningful impact on error reduction.

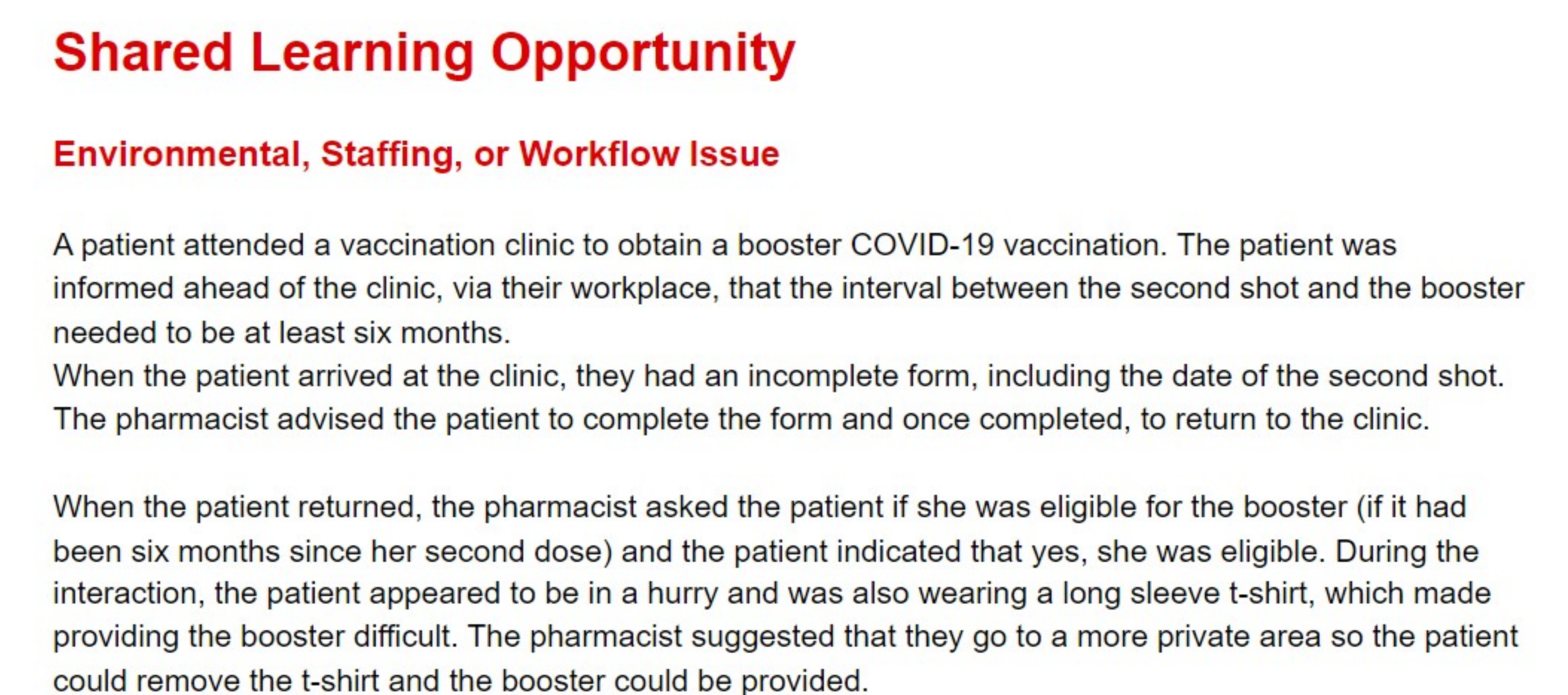
Keep the Continuous in the CQI Plan – Some pharmacies have reported that they monitor the effectiveness of quality improvement initiatives on a quarterly basis, while others report they perform this on a biannual or annual basis. Regardless of the frequency of this review, continuous monitoring is an important verification that quality improvement initiatives are working. It also allows for further adjustment initiatives as needed and is a valuable review for the pharmacy team.

For more information or suggestions for improvement, contact your pharmacy's respective field officer.

NEW! National Incident Data Repository Safety Brief

SCPP would like to introduce the new National Incident Data Repository Safety Brief. The brief contains Saskatchewan specific information regarding the number and types of incidents reported into CPhIR, as well as tips to help prevent errors. ISMP Canada has developed this brief to optimize safe medication practices.

This is a biannual publication (with six-month reporting periods), however because this is the inaugural edition, analysis of one year of data is presented.



Shared Learning Opportunity

Environmental, Staffing, or Workflow Issue

A patient attended a vaccination clinic to obtain a booster COVID-19 vaccination. The patient was informed ahead of the clinic, via their workplace, that the interval between the second shot and the booster needed to be at least six months.

When the patient arrived at the clinic, they had an incomplete form, including the date of the second shot. The pharmacist advised the patient to complete the form and once completed, to return to the clinic.

When the patient returned, the pharmacist asked the patient if she was eligible for the booster (if it had been six months since her second dose) and the patient indicated that yes, she was eligible. During the interaction, the patient appeared to be in a hurry and was also wearing a long sleeve t-shirt, which made providing the booster difficult. The pharmacist suggested that they go to a more private area so the patient could remove the t-shirt and the booster could be provided.

Due to the pharmacist and patient moving to a different area, the pharmacist did not check PIP prior to the patient receiving their second shot. However, after the patient had received the booster and had left, the pharmacist then checked PIP and it was determined that the patient was not eligible for the booster, as it had not been six months since the second shot.

The patient was informed, and the incident was communicated to health authorities. Information was provided to the pharmacist by the health authorities that it was OK that the patient had received the dose early and it would be considered a booster dose. No adverse effects were experienced by the patient due to the early administration of the booster.

Upon review of the incident by the pharmacy staff, it was determined that the main contributing factors that led to the incident were identified as (1) an environmental, staffing, and workflow problem, specifically workload, interruptions, and noise, and (2) a patient education issue, specifically that the patient was not encouraged to ask questions and eligibility information was not provided directly to the patient.

The system-based solutions that were recommended were:

1. To ensure a double-check is completed regarding patient eligibility prior to vaccinations being given.
2. To confirm with the patient that they are aware of vital information including their eligibility and the date of their previous vaccination.
3. To attempt to limit interruptions while providing services that require the pharmacy staff to be more focused.

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

Statistics

Statistical reports are provided to bring awareness of the importance of identifying, reporting, and discussing medication incidents. A total of **38,708** incidents have been reported to the Community Pharmacy Incident Reporting (CPhIR) database between Sept. 1, 2013, and June 30, 2022. The statistics below relate to this period.

Outcomes

- **21,893** reported incidents had an outcome of NO ERROR/NEAR MISS, which means the incidents were intercepted BEFORE they reached the patient.
- **15,595** NO HARM incidents, which means the incidents reached the patient but did not cause harm.
- **1,199** reported incidents did result in HARM, with most of these in the category of MILD or MODERATE HARM. There have been four incidents reported with an outcome of DEATH.

Incident Types – Top Three

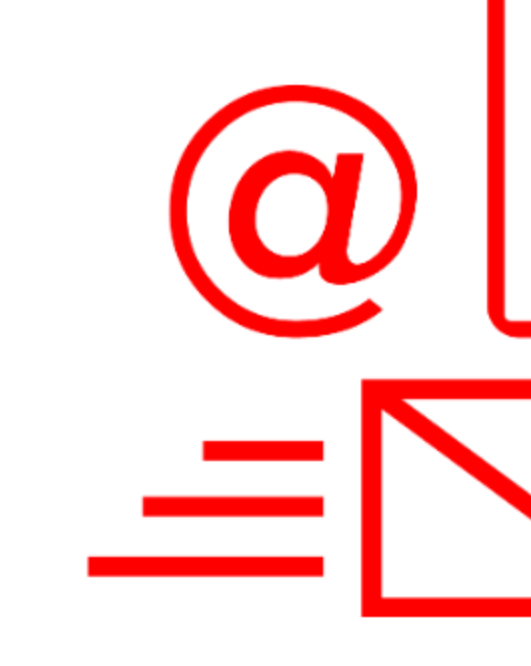
- Incorrect dose/frequency – **8,991**
- Incorrect drug – **6,595**
- Incorrect quantity – **6,364**

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

1,338 Continuous Quality Improvement (CQI) meetings have been held.

Contributing Factors – Top Four

- Interruptions – **4,546**
- Workload – **3,496**
- Look / Sound Alike Names – **1,949**
- Staffing Deficiencies – **1,748**



The SMART Medication Safety Agenda

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

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 a noteworthy 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.

Contact

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