Establishing a Multisectoral Collaborative Drug Diversion Program in a Canadian Health System

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To cite: Braun N. Establishing a multisectoral collaborative drug diversion program in a Canadian health system. *Can J Hosp Pharm.* 2024;77(3):e3551. doi: 10.4212/cjhp.3551

INTRODUCTION

Drug diversion is a clandestine activity that often goes unreported.[1] When drug diversion occurs within a health system, patients may receive care from a health care worker who is impaired by self-administered controlled substances, may fail to receive prescribed analgesia that has instead been diverted,[2] or may contract a viral or bacterial infection from syringes used to divert and self-administer medications.[3] Most health care workers who divert drugs are experiencing substance use disorder and risk many negative outcomes, including overdosing on diverted controlled substances.[4,5] Research has also suggested that substance use among health care workers has increased since the COVID-19 pandemic,[6] which may contribute to an increased incidence of drug diversion.

Drug diversion—the redirection, within a health system, of a medication from its intended destination by health care workers for personal use, sale, or distribution to others[7]—happens in all health systems that handle controlled substances.[8] Canadian health systems are reporting increased losses of controlled substances,[9] and recent Canadian research,[4,10,11] practice guidelines,[12] and media reports[13] have recommended that health systems prevent drug diversion by addressing gaps in control processes related to procuring, preparing, storing, dispensing, wasting, and returning controlled substances. However, it is unclear whether changing control processes alone is effective, as health care workers experiencing substance use disorder may be compelled to circumvent control processes to access controlled substances.[14]

Accordingly, US health systems have published case studies[15,16] describing how they applied practice guidelines[17] and accreditation standards[18] to establish multisectoral collaborative drug diversion programs for detecting, responding to, and investigating signs of diversion. However, there is a paucity of literature describing the establishment of similar detection and investigation efforts in Canadian health systems.[19] Without a collaborative approach to addressing drug diversion, patients, health care workers, and health systems remain at risk from this clandestine and under-reported activity.

This article helps to address this gap by describing the establishment of a multisectoral collaborative drug diversion program in a Canadian health system, thereby providing a road map for other health systems looking to establish their own drug diversion programs.

DESCRIPTION OF PROGRAM

The Fraser Health Authority (FHA) serves a region of 1.9 million people in southwestern British Columbia. Recognizing the need for a drug diversion program, FHA established a program in 2019 for its 12 acute care hospitals and other health care facilities. The following sections of this article describe the 4 key components of FHA's drug diversion program and how the organization implemented them.

Hire a Drug Diversion Lead

The first key component that FHA implemented was the hiring of a Drug Diversion Lead (DDL). Published literature and practice guidelines state that a DDL is required to manage the operations of a drug diversion program, including establishing and sustaining processes to detect, investigate, and mitigate diversion.[12,17,20,21] The DDL is also the health system's resource to support staff with subject matter expertise concerning laws, regulations, bylaws, and best practices related to controlled substances and diversion.[21]

Drug diversion programs are multisectoral, and health systems have therefore hired DDLs from various disciplines, including pharmacy, nursing, and law enforcement.[15,16] In this case study, FHA hired a pharmacist (N.B.) who, in past roles, had collaborated with multiple teams in various health systems to provide substance use disorder and harm reduction services.

Create a Drug Diversion Oversight Committee

Signs of drug diversion require responses and actions from multiple teams within a health system. The second key component that FHA implemented was therefore a drug diversion oversight committee to lead these responses and

actions. Practice guidelines and previous studies indicate that an oversight committee should include senior leaders from pharmacy, nursing, human resources, risk management, and security, and that these committee members should have the following responsibilities[7,12,15-17,20,21]:

- overseeing the program and addressing barriers to its work
- developing and maintaining the health system's policies and procedures related to diversion (including procedures for investigating signs of diversion)
- reviewing data and findings from diversion investigations
- providing education to the health system's staff
- considering the health system's responses to new legislation and regulations

FHA's oversight committee (known internally as the FHA Drug Diversion Advisory Group) is chaired by the DDL and includes representation from pharmacy, nursing professional practice, human resources, risk management, and security. Initially, FHA's oversight committee met monthly to develop a Drug Diversion Policy and a Drug Diversion Protocol that outline the process for responding to and investigating signs of drug diversion within FHA. The policy specifies that all FHA staff must report signs of drug diversion to their supervisor or to FHA's anonymous whistle-blower hotline. Examples of behaviours, appearance, or work habits that may indicate drug diversion include performing minimal or inconsistent documentation, missing shifts or arriving early to or leaving late from shifts, wearing long sleeves when not appropriate, and frequently volunteering to administer controlled substances to other nurses' patients.[7,8,20]

Detect Drug Diversion with Software

In addition to creating policies that require staff to report signs of drug diversion, current literature and US practice guidelines also recommend that health systems use drug diversion detection software to proactively monitor for diversion.[17,21-23] Drug diversion detection software analyzes data from automated dispensing cabinets (ADCs) to generate reports that identify staff who have withdrawn significantly higher quantities of controlled substances from ADCs than their peers. Reviewing these reports at regular intervals can detect drug diversion before outward signs of diversion are observed.[22,23]

To implement this third key component of FHA's program, the DDL collaborates with pharmacy and nursing colleagues to generate and review drug diversion software reports 3 times a year for all units in FHA facilities with ADCs. A representative from each FHA facility first reviews these reports and identifies staff members who have withdrawn anomalous quantities of controlled substances. The DDL then conducts additional analyses to recommend patient charts for audit by facility representatives. According to the audit findings (e.g., repeated withdrawals of controlled substances without corresponding documentation of medication administration), the manager of the staff member(s) identified and the DDL decide whether to initiate a diversion investigation.

Conduct Drug Diversion Investigations

The fourth key component of FHA's drug diversion program is the conduct of investigations when signs of diversion are observed or detected by audit. It has been recommended that oversight committees develop procedures for their respective health systems to use when investigating signs of diversion, and that these investigative procedures should define the following aspects of drug diversion investigations[5,12,17,20,21]:

- whom the DDL includes in an investigative team
- whom the DDL notifies that an investigation has been started
- how to determine when external reporting (e.g., to Health Canada, a regulatory college, law enforcement) is required
- how to ensure patients and staff stay safe (e.g., by removing staff from service during an investigation or changing access to controlled substances)
- what evidence will be collected and by whom
- who will interview staff associated with reported signs of diversion and by what process
- to whom the DDL will send the final report at the end of an investigation

FHA's oversight committee developed a set of investigative procedures to meet these requirements, which were then included in the Drug Diversion Policy and the Drug Diversion Protocol. When signs of diversion are observed or detected by auditing, the DDL forms an investigative team, made up of members from the teams represented on the FHA oversight committee and the manager of the area where signs of diversion have been identified. The DDL then assigns actions to other team members to keep patients and staff safe, meet reporting requirements, and gather evidence. Once team members have completed these actions and collected all available evidence, the DDL reconvenes the investigative team to confirm its key findings and review its recommendations to mitigate future instances of diversion. The DDL then concludes the investigation by writing a final report and distributing it to investigative team members, FHA oversight committee members, and FHA senior leadership.

EVALUATION OF PROGRAM

The drug diversion program was initiated in 2019. FHA had confirmed 1 instance of drug diversion in 2018, the year before the start of the program. In 2019, the first year of the program, FHA conducted 13 drug diversion investigations and confirmed 8 instances of diversion. Then, from January 2020

to December 2023 (the period of the most recently available summary data), FHA conducted an additional 32 investigations and confirmed an additional 15 instances of diversion, for totals of 45 investigations and 23 instances (51%) of diversion since program implementation. As recommended by Canadian practice guidelines and literature, FHA supports, when deemed appropriate, the rehabilitation and return to work of staff who are experiencing substance use disorder and who have diverted controlled substances.[8,12,21,24]

FHA initiated almost the same number of investigations on the basis of observations reported by staff (n = 24, 53%) and on the basis of diversion software (n = 21, 47%), which demonstrates the importance of both methods in detecting diversion.

Almost all investigations (n = 40, 89%) confirmed the presence of practice deficiencies, which suggests that FHA's drug diversion detection methods are also effectively identifying opportunities to improve the quality and safety of its services, regardless of whether drug diversion was confirmed to have occurred. The following are examples of the practice deficiencies identified:

- not administering, documenting, and/or wasting controlled substances in alignment with best practices and/or FHA policy
- issuing and accepting verbal orders for controlled substances in non-emergency situations
- not storing controlled substances in patient care areas in alignment with the double- or triple-lock procedure described in the Canadian practice guidelines[12]
- storing controlled substances in patient care areas in a lock box while titrating doses, despite FHA not explicitly authorizing this practice
- leaving keys to a patient care area's narcotic cupboard in an unsecure location

On the basis of practice deficiencies identified and recommendations made by investigative teams, FHA, the oversight committee, and the DDL have taken additional actions to mitigate drug diversion and improve quality and safety, including the following:

- educating staff about the requirement to report signs of diversion and informing them that this reporting keeps patients safe and helps staff get help when they need it
- reminding staff of best practices for ordering, administering, documenting, and wasting controlled substances
- revising FHA policies for security and storage of controlled substances
- installing additional ADCs
- exploring procurement of "second-generation" detection software, which detects diversion sooner than FHA's current software by using artificial intelligence to analyze data from multiple sources (including electronic medical records)[25]

IMPLICATIONS FOR PRACTICE

Despite the risks it presents to patients, health care workers, and health systems, drug diversion is "substantially underestimated, undetected, and underreported".[8] By applying the best practices and real-world experience described in this article, health systems can establish multisectoral collaborative drug diversion programs to keep patients safe and help staff experiencing substance use disorder to get the help they need when they need it.

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Competing interests: None declared.

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Funding: None received.

Acknowledgements: The author acknowledges Erin Peebles, MD, FRCPC, MHPE, for providing insightful edits and feedback on presubmission drafts of this manuscript.

Submitted: September 26, 2023
Accepted: January 25, 2024
Published: July 10, 2024