



Safer Decisions Save Lives

Proceedings of the Expert Panel on Community Opioid Prescribing

Winter 2016

Institute for Safe Medication Practices Canada
Institut pour l'utilisation sécuritaire des
médicaments du Canada

info@ismp-canada.org www.ismp-canada.org

4711 Yonge Street, Suite 501
Toronto, Ontario M2N 6K8

telephone: 416-733-3131
toll free: 1-866-54-ISMPC
(1-866-544-7672)
fax: 416-733-1146

*A Key Partner in the Canadian Medication Incident Reporting and Prevention System
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ISMP Canada's mandate includes collection, review and analysis of medication incident and near-miss reports, identifying contributing factors and causes and making recommendations for the prevention of harmful medication incidents. Information on safe medication practices for knowledge translation is published and disseminated.

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Institute for Safe Medication Practices Canada

4711 Yonge Street

Suite 501

Toronto ON

M2N 6K8

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Executive Summary

In the Fall of 2015, ISMP Canada, with the financial support of Health Canada, brought together experts in opioid use from across Canada. Expert panel participants were asked to evaluate each of 23 good or promising opioid practices along with the supporting information. The panelists were asked to consider what practices they thought would be likely to result in better and safer opioid management amongst community prescribers. After group discussion of each promising practice, the panelists were asked to score the practice and its impact on prescribing behaviour, opioid patient safety, and whether it should be included in opioid-related clinical decision support tools.

The highest scored good or promising practices were:

- 1) Having electronic medical records automatically convert all opioids to morphine equivalents.
- 2) Having a standardized approach to providing essential information to patients about the use of opioids to treat their pain condition.
- 3) Systematically collecting appropriate information about patients being treated with opioids.
- 4) Systematically assessing and documenting function and pain using validated tools at each visit where opioids are prescribed.
- 5) Assessing risk of harm/addiction on an ongoing basis and using the information to direct the intensity and components of management for patients.
- 6) Recognizing a failed opioid trial and the subsequent initiation of an appropriate tapering regimen.

This report is intended to present the outcome of discussion and debate of the expert panel for the consideration and use by other organizations involved in opioid or medication safety.

Project Background

Using a key set of safe practices in community opioid prescribing, the Safer Decisions Save Lives (SDSL) project will develop functional specifications that will enhance Clinical Decision Support Systems (CDSS) for Electronic Medical Records (EMR) and Non-Electronic Medical Records (Non-EMRs). The enhanced CDSS will equip prescribers to make better informed decisions regarding the introduction and management of opioid therapy.

Improvement in prescribing practices can be achieved through broader and more consistent application of best practices and safeguards related to prescribing. This contention is supported by research conducted by the National Advisory Council on Prescription Drug Misuse report that indicates that the use of practice guidelines has positive patient outcomes. However their effectiveness is currently challenged by two factors:

1. Key components of Clinical Practice Guidelines have not been identified or made accessible to primary care prescribers like family physicians; and
2. Certain elements of the existing practice guidelines require enhancement to render them more effective in opioid therapy.¹

The SDSL project will provide Canadian family physicians and other community-based prescribers (e.g., nurse practitioners with prescribing privileges) with an enhanced safe prescribing tool for more effective clinical decision support in EMR and paper systems.

¹ National Advisory Council on Prescription Drug Misuse report, *First Do No Harm: Responding to Canada's Prescription Drug Crisis*

Methodology - Best and Promising Practices Strategy

Determination of the initial best and promising practices list resulted from a multi-step process:

- *Review of selected clinical guidelines (examples provided):*
 - Canadian Guideline for Safe and Effective Use of Opioids – National Pain Centre
 - Clinical Guidelines for the Use of Chronic Opioid Therapy in Chronic Noncancer Pain – American Pain Society –American Academy of Pain Medicine Opioids Guidelines Panel
 - VA/DoD Clinical Practice Guideline for Management of Opioid Therapy for Chronic Pain
 - Review of guideline reference lists
- Review of academic literature on best and promising practices in opioid prescribing
- Review of secondary literature on best and promising practices in opioid prescribing
 - Regulatory college advice
 - Local and professional association guidelines
- Expert opinion and inspiration
 - ISMP Canada
 - Expert collaborators
 - Key Informants
 - Members of the expert panel

The project welcomes practices with stronger evidence, however is open also to ideas that have not been examined in-depth or carry less evidence, providing there is some rationale or justification that the practice will improve prescriber behaviour. Some of these proposals arise from experience, from the result of analysis of other aspects of prescribing, and some are simply inspired ideas.

The resultant list is a compilation of 23 good or promising practices that may influence prescriber behaviour. This is not an exhaustive list, rather a best effort search and review of ideas that may be able to limit harm when prescribing opioids. Some of these practices rest upon good evidence of effectiveness and have been more rigorously evaluated. Some, however, have not. Experts were asked to review these practices prior to attending the expert panel meeting.

Expert panel participants were asked to evaluate each of the 23 practices presented, along with the supporting information. The panelists were also encouraged to add to or amend the practices based on their expertise and experience.

After group discussion of each promising practice, the panelists were asked to score the practice and its impact on 1) prescribing behaviour, 2) opioid patient safety, and 3) whether it should be included in opioid-related clinical decision support tools. The following scale was used:

- 1 Not likely to improve prescribing behaviour, not likely to improve opioid safety for patients, no need to incorporate in opioid related clinical decision support tools

- 2 Only occasionally likely to improve prescribing behaviour, may occasionally improve opioid safety for patients, not a priority to incorporate in opioid related clinical decision support tools
- 3 Will possibly improve prescribing behaviour, will possibly improve opioid safety for patients, may be useful to incorporate in opioid related clinical decision support tools
- 4 Will probably improve prescribing behaviour, will most likely increase opioid safety for patients, should be incorporated in opioid related clinical decision support tools
- 5 Highly likely to improve prescribing behaviour, will definitely increase opioid safety for patients, must be incorporated in opioid related clinical decision support tools

Each panelist was provided with a wireless device to anonymously submit their score.

The following descriptive scale was used in interpreting the numerical weighted score:

Score	Improve Prescribing Behaviour	Improve Opioid Safety for Patients	Incorporate into Clinical Decision Support Tools
1.0 to 1.2	<i>Not likely to</i>	<i>Not likely to</i>	<i>No need to</i>
1.3 to 1.7	<i>Not likely to To Only occasionally likely to</i>	<i>Not likely to To Only occasionally likely to</i>	<i>No need to To Not a priority to</i>
1.8 to 2.2	<i>Only occasionally likely to</i>	<i>Only occasionally likely to</i>	<i>Not a priority to</i>
2.3 to 2.7	<i>Only occasionally likely to To Will possibly</i>	<i>Only occasionally likely to To Will possibly</i>	<i>Not a priority to To May be useful to</i>
2.8 to 3.2	<i>Will possibly</i>	<i>Will possibly</i>	<i>May be useful to</i>
3.3 to 3.7	<i>Will possibly</i>	<i>Will possibly</i>	<i>May be useful to</i>
3.8 to 4.2	<i>Will probably</i>	<i>Will probably</i>	<i>Should</i>
4.3 to 4.7	<i>Will probably To Highly likely to</i>	<i>Will probably To Highly likely to</i>	<i>Should To Must</i>
4.8 to 5.0	<i>Highly likely to</i>	<i>Highly likely to</i>	<i>Must</i>

Results

Each practice is presented in ranked order in this report, along with the scoring provided by the expert panel and highlights of the discussion that took place. The opinions, principles, guidelines, practices, and advice outlined in this document are not necessarily those of ISMP Canada, those of the participants or their organizations, or those of any individual. This report is written in an anonymous fashion, and no statement or opinion or score should be attributed to any one person or organization. Not all evidence, knowledge, or advice may have been available or taken into account when preparing this document and not all possible practices informing safe opioid prescribing may have been considered or presented.

This report is intended to present the outcome of discussion and debate of the expert panel for the consideration and use by other organizations involved in opioid or medication safety. The report is not intended to establish professional regulations or standards and as such the proceedings of the meeting and contents of the report must be evaluated in the context of professional standards, regulations and expectations.

Table 1 provides a summary of the scoring for the expert panel session and a calculated weighted score for each practice.

Table 1: Percent panelists selecting each score and overall Weighted Score

Practice	Weighted Score/5
Automatic Conversion to Morphine Equivalents	4.9
Standardized Approach to Patient Information and Education	4.8
Consistency of Information Collection and Presentation	4.7
Monitoring and Assessment of Pain and Function	4.6
Management of High-Risk Patients	4.6
Discontinuing and/or Tapering Opioids	4.6
Integration of Real-Time Data from Prescription Monitoring Programs	4.4
Identification and Monitoring of Red Flag Triggers	4.3
Non-Opioid Options	4.3
Overdose and Harm Prevention	4.3
Addiction Risk Assessment	4.2
Replacement of Prescriptions	4.1
Prescriber Self-Audit and Evaluation	4.1
Urine Drug Screening	4.0
Watchful Dose	4.0
Management of Co-Medications	3.9
Assessment for and Management of Opioid Use Disorder	3.7
Reduced Doses in Patients at Risk of Toxicity	3.6
Comorbid Mood Disorder Screening	3.5
Initial Opioid Selection	3.3
Dose Titration	2.7
Automated Urine Drug Screening Interpretation	2.4
Use of As-Needed Dosing	1.6

Practice – Automatic Conversion to Morphine Equivalents

Automatic conversion of opioid doses to morphine equivalents in the EMR display and prescription may reduce the errors associated with manual calculation and provides a reminder of the opioid dose.

Expert Panel Scoring

Members of the expert panel gave this practice a weighted score of **4.9** out of 5, indicating that the prescribing practice *will highly likely* improve opioid prescribing behaviour, *will highly likely* increase opioid safety for patients, and *must be* incorporated in opioid-related clinical decision support tools.

Experts scored this practice highly, indicating that it would highly likely improve opioid prescribing behaviour and increase opioid safety for patients. There was recognition that conversion tables are often difficult to use and can involve multiple steps (e.g. to convert from oxycodone to fentanyl, some conversion tables require conversion of oxycodone to morphine, then morphine to fentanyl). Furthermore, it was pointed out that conversion tables are often uni-directional and conservative, leading to potential overdosing if the same table is used in a backwards conversion manner.

There was agreement that incomplete cross-tolerance is an aspect of opioid conversion that may not be fully appreciated by community prescribers.

Experts felt that the existing Opioid Manager app (available at <http://www.opioidmanager.com/>) is useful. This app not only calculates the morphine equivalents, but also incorporates the discount if switching to another opioid.

Practice – Standardized Approach to Patient Information and Education

Primary care prescribers would benefit from having a standardized approach to providing essential information to patients about the use of opioids to treat their pain condition.

Expert Panel Scoring

Members of the expert panel gave this practice a weighted score of **4.8** out of 5, indicating that the prescribing practice *highly likely* improve opioid prescribing behaviour, *highly likely* increase opioid safety for patients, and *must be* incorporated in opioid-related clinical decision support tools.

The expert panel agreed that providing patients with the right information was key to setting expectations about their pain and opioid prescription management.

There was agreement that there should be documented informed consent/treatment agreement for all patients, including expectations and goals of therapy, medication side effects, risk of addiction, consequences of lost prescriptions, dangers involved with sharing, recognition of toxicity, response to potential overdose, and reasons for discontinuation. Documentation should also include what the patient understands. There was a suggestion that the informed consent be shared with the community pharmacist so that the pharmacist can support the management plan and reinforce patient expectations.

With respect to involving non-prescriber health care professionals, experts agreed with involving the pharmacist and office staff in delivering patient information to enhance the team approach to patient management, and also offset prescriber workload.

Adverse effects and impact on activities of daily living were also discussed. Driving during periods of dose adjustment was one particular area of concern that was raised.

There was acknowledgement that having a consistent approach decreases the risk of overlooking critical information, and that involving the patient in the documentation of the conversation (e.g., by checking boxes, or initialing passages, or by providing copies of the documents) encourages the patient to pay attention, enhances the appearance of entering a contract, and demonstrates that the prescriber is serious about the information communicated.

Practice – Consistency of Information Collection and Presentation

Primary care prescribers should systematically collect appropriate information about patients being treated with opioids using standardized templates offered by EMRs. This information needs to be presented back to the prescriber in an easy-to-understand and useable format.

Expert Panel Scoring

Members of the expert panel gave this practice a weighted score of **4.7** out of 5, indicating that the prescribing practice *will probably to highly likely* improve opioid prescribing behaviour, *will probably to highly likely* increase opioid safety for patients, and *should to must be* incorporated in opioid-related clinical decision support tools.

The practice highlights the need to standardize information collected using templates during an opioid/pain-related visit.

There was little discussion about this practice as the panel scoring indicated that experts were overwhelmingly in favour of this practice and referred to the Opioid Manager as an excellent example. The adoption of consistent practices reduces the risk of omitting critical steps in opioid management, ensures complete documentation, and assists in reviewing the response to therapy.

Practice – Monitoring and Assessment of Pain and Function

Community prescribers of opioids should assess and document function and pain using validated tools at each visit where opioids are prescribed.

Expert Panel Scoring

Members of the expert panel gave this practice a weighted score of **4.6** out of 5, indicating that the prescribing practice *will probably to highly likely* improve opioid prescribing behaviour, *will probably to highly likely* increase opioid safety for patients, and *should to must be* incorporated in opioid-related clinical decision support tools.

Panelists were in agreement that the goal of therapy is to improve function (e.g., distance walked), not necessarily pain itself and that these parameters should be measured in a systematic way.

The Brief Pain Inventory (BPI) is commonly used for monitoring a patient's progress over time. The BPI is designed to record pain severity and its impact on the patients function. Experts use the BPI in patient interviews and with each visit to assess the effectiveness of opioid treatment. The BPI can be self-administered as well. There are 2 versions of the BPI – the original version which consists of 30+ questions and a short form that poses 9 questions (see chart below).

Assessment tools from the Washington State Agency Guidelines were also discussed. There are 2 tools presented in these guidelines, and comments from the panelists suggest both are brief and straight-forward to administer.

Selected tools discussed by the expert panel used to assess pain and function:

Tool	Link
Brief Pain Inventory – full version	http://www.opioidrisk.com/node/1393
Brief Pain Inventory – short form	http://www.npcrc.org/files/news/briefpain_short.pdf
3 Item PEG Assessment Scale	http://www.agencymeddirectors.wa.gov/Files/2015AMDGOpioidGuideline.pdf (page 10)
2 Item Graded Chronic Pain Scale	http://www.agencymeddirectors.wa.gov/Files/2015AMDGOpioidGuideline.pdf (page 10)

Practice – Management of High-Risk Patients

Ongoing risk assessment should direct the intensity and components of management for high-risk patients.

Expert Panel Scoring

Members of the expert panel gave this practice a weighted score of **4.6** out of 5, indicating that the prescribing practice *will probably to highly likely* improve opioid prescribing behaviour, *will probably to highly likely* increase opioid safety for patients, and *should to must be* incorporated in opioid-related clinical decision support tools.

This practice is closely associated with Practice #1, and was originally presented as monitoring of high-risk patients. However, experts agreed that the practice should be more encompassing and include the cycle of ongoing risk assessment which will in turn determine the intensity of monitoring and other management-related aspects of care, and could be incorporated into the electronic health record. This practice includes activities carried out by prescribers, nurses, and pharmacists.

Experts agreed that a management plan for populations at various risk profiles should be tailored to encompass frequency of assessment, parameters for monitoring, prescribing considerations (e.g., dispensing amounts), and direction for referral to experts.

Practice – Discontinuing and/or Tapering Opioids

Recognition of a failed opioid trial by primary care prescribers should initiate a voluntary taper off of the opioid in chronic opioid users.

Expert Panel Scoring

Members of the expert panel gave this practice a weighted score of **4.6** out of 5, indicating that the prescribing practice *will probably to highly likely* improve opioid prescribing behaviour, *will probably to highly likely* increase opioid safety for patients, and *should to must be* incorporated in opioid-related clinical decision support tools.

Experts felt that it was critical to recognize a failed opioid trial with no functional improvement and deal with it early, rather than years later.

Experts distinguished the tapering practice for chronic versus acute pain, as well as involuntary and voluntary situations.

Experts felt that in some cases of acute pain situations with a short duration of opioid use, a taper was not necessary. It was further agreed that the taper need not necessarily be to zero, but should go back to the dose where there was a demonstrated improvement in function or pain - this may not be zero.

Panelists identified that serious credible threats against the prescriber or criminal behaviour constitute circumstances in which an involuntary taper should occur. In these situations, the opioid dose can be tapered off more quickly.

Experts shared taper strategies including:

- include patient input into determining a voluntary taper
- connect patients with options for suboxone or methadone
- involve the pharmacist (if the pharmacist has been trained) in the taper process
- switch to another opioid to take advantage of incomplete cross tolerance
- use of non-pharmacological options
- provide the prescriber with talking points to review with the patient including setting expectations for the patient regarding how they will feel during the taper and at discontinuation. MyOpioidManager has a download for scripts that can be used by the prescriber

Practice – Integration of Real-Time Data from Prescription Monitoring Programs

Prescription monitoring programs (PMPs) need to provide real-time data in an easy-to-access manner to primary care prescribers at the time of decision-making in order to have an impact on prescribing.

Expert Panel Scoring

Members of the expert panel gave this practice a weighted score of **4.4** out of 5, indicating that the prescribing practice *will probably to highly likely* improve opioid prescribing behaviour, *will probably to highly likely* increase opioid safety for patients, and *should to must be* incorporated in opioid-related clinical decision support tools.

Overviews of prescription monitoring programs (PMPs) from different provinces were shared with the group. Panelists generally agreed that primary care providers need to have easy access to real-time data from PMPs when decisions are made in order for the practice to be effective.

For example, in one province, prescribers working in emergency rooms and walk-in clinics are mandated to review the patient record with real-time data from the Provincial PMP. Both doctors and pharmacists have access to the PMP, which will include not just opioids, but also benzodiazepines once fully implemented. Feedback from physicians about this initiative has been positive.

At this time, not all jurisdictions have such a real-time database, and not all community prescribers have the capability to access this data.

Practice – Identification and Monitoring of Red Flag Triggers

EMRs should monitor and track critical information to support appropriate opioid management and highlight red flags to the community prescriber.

Expert Panel Scoring

Members of the expert panel gave this practice a weighted score of **4.3** out of 5, indicating that the prescribing practice *will probably to highly likely* improve opioid prescribing behaviour, *will probably to highly likely* increase opioid safety for patients, and *should to must be* incorporated in opioid-related clinical decision support tools.

The panel voted on the practice of EMR monitoring and displaying red flag triggers for the prescriber. This includes EMRs being able to:

- identify patients who request early refills on opioid prescriptions by calculating and displaying expected “run out” dates
- track and graph crucial information about opioid management and highlight expected results or deviances (e.g., PHQ-9, BPI scores, functional scores)

It was agreed that although some red flags would in principle, be easy to establish (e.g., early refill, frequent visits, worsening functional scores), any number of clinical or behavioural factors could potentially form a red flag and that further deliberation would be required. Alternatively, red flags could be flexible and variable to suit prescribing patterns of the practitioner.

Practice – Non-Opioid Options

Community prescribers should try non-pharmacological and non-opioid options first, before considering opioids, and proceed to opioids only if indicated for the clinical situation.

Expert Panel Scoring

Members of the expert panel gave this practice a weighted score of **4.3** out of 5, indicating that the prescribing practice *will probably to highly likely* improve opioid prescribing behaviour, *will probably to highly likely* increase opioid safety for patients, and *should to must be* incorporated in opioid-related clinical decision support tools.

Opioids are only one of the treatment options for pain. There was broad agreement that non-pharmacological treatment options should be considered first. If pharmacological options are required, non-opioid options should be evaluated before even considering opioids. Opioids should only be used if the previous treatment options were ineffective or caused adverse effects, and only if opioids have been demonstrated to be effective for the particular type of pain being treated.

It was acknowledged that patient preference and values should also be taken into account when evaluating different treatment options.

Suggested information to include with this practice:

- a list of non-pharmacological options with evidence to support condition being treated
- a list of non-opioid pharmacological options with evidence and risks of treatment
- evidence (or lack of evidence) of opioid therapy for different clinical situations
- scripts and talking points for care providers to use for difficult conversations with patients (suggested borrowing lines from Washington State guidelines)

Practice – Overdose and Harm Prevention

Patients need to be informed about the safe storage and disposal of opioid medications, the importance of not sharing medications, avoidance of other recreational drugs, awareness of toxicity, and interventions in suspected overdose.

Expert Panel Scoring

Members of the expert panel gave this practice a weighted score of **4.3** out of 5, indicating that the prescribing practice *will probably to highly likely* improve opioid prescribing behaviour, *will probably to highly likely* increase opioid safety for patients, and *should to must be* incorporated in opioid-related clinical decision support tools.

This practice focuses on prevention of overdose and harm from opioids through safe storage, avoidance of sharing the medications, as well as managing unwanted and unused opioid medication by returning them to the pharmacy for safe disposal.

One expert suggested that harm reduction should include avoidance of concomitant use with sedating medications, other recreational substances, and alcohol. In that sense, this practice has some overlap with Practice #11.

The timely and appropriate identification and response to toxicity or overdose was also discussed, including the use of naloxone by community responders. The importance of involving family members (where possible) in the recognition and initial management of overdose was also emphasized.

Practice – Addiction Risk Assessment

Community prescribers of opioids should perform an addiction risk assessment prior to initiating opioids and at intervals throughout the duration of treatment.

Expert Panel Scoring

Members of the expert panel gave this practice a weighted score of **4.2** out of 5, indicating that the prescribing practice is *probably likely* to improve opioid prescribing behaviour, is *probably likely* to increase opioid safety for patients, and *should* be incorporated in opioid-related clinical decision support tools.

The practice as originally presented to the expert panel identified not only the need to undertake the risk assessment, but also who was at risk and the types of questions to ask.

Experts were in agreement that in general, all patients treated with opioids (including surgical and cancer patients), should undergo some risk assessment prior to initiating opioids and at intervals throughout the duration of opioid treatment. The integration of the assessment tool should be triggered through the usual prescribing practice.

Members pointed out that these tools are not used to “catch people” but are used to identify the risk for addiction in individuals. Some patients scoring at a low risk may become addicted to opioids, and not all patients scoring at a high risk will become addicted. Panelists advised that the stratification of risk will be used to guide the prescriber’s management and monitoring plan for opioid use in the patient, including the interval at which the assessment should be repeated.

Members of the panel identified a number of risk assessment tools that they use in practice, with the ORT being the most frequently used:

Tool	Additional Information
Opioid Risk Tool (ORT)	http://www.opioidrisk.com/node/1203
Screener and Opioid Assessment for Patients with Pain-Revised (SOAPP-R)	http://www.opioidrisk.com/node/1209
Screening Instrument for Substance Abuse Potential (SISAP)	http://www.opioidrisk.com/node/1397
Single question screening test for drug use	http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2911954/

Practice – Replacement of Prescriptions

Patients should understand that primary care prescribers should rarely have to replace a lost or stolen prescription, and will only do so with compelling reasons.

Expert Panel Scoring

Members of the expert panel gave this practice a weighted score of **4.1** out of 5, indicating that the prescribing practice *will probably* improve opioid prescribing behaviour, *will probably* increase opioid safety for patients, and *should be* incorporated in opioid-related clinical decision support tools.

This practice addresses prevention of opioid misuse through controlling the prescriptions written for opioids. Primary care prescribers are expected to work collaboratively with pharmacists and in general, not to replace lost or stolen prescription.

Experts felt that prescriptions should be addressed under Practice #19 Patient Information, but generally agreed on the practice. Some experts felt that this practice should not be too rigid, if there is a compelling reason for prescription replacement. Daily prescriptions were raised as an alternative option.

Practice – Prescriber Self-Audit and Evaluation

Self-audit of quarterly statistics can benefit primary care prescribers by identifying outliers that carry safety risks and triggering necessary action.

Expert Panel Scoring

Members of the expert panel gave this practice a weighted score of **4.0** out of 5, indicating that the prescribing practice *will probably* improve opioid prescribing behaviour, *will probably* increase opioid safety for patients, and *should be* incorporated in opioid-related clinical decision support tools.

This practice suggests that primary care prescribers should review quarterly statistics on their own prescribing practice for self-audit purposes. Data should be easy to access and review through the EMR.

In particular, the safeguard suggests reviewing the following parameters:

- patients on high or watchful doses
- patients who present earlier than expected for refills
- patients who have had doses escalated rapidly
- patients who do not have a urine screen

Some experts thought that having data provided by prescription monitoring programs where available may be more useful than pulling data from the EMR.

Practice – Urine Drug Screening

Community prescribers of opioids should perform urine drug screening based on intervals informed by the results of addiction risk assessment.

Expert Panel Scoring

Members of the expert panel gave this practice a weighted score of **4.0** out of 5, indicating that the prescribing practice *will probably* improve opioid prescribing behaviour, *will probably* increase opioid safety for patients, and *should be* incorporated in opioid-related clinical decision support tools.

Experts were generally in agreement that urine drug screening (UDS) is a useful tool to improve opioid prescribing behaviour and to increase opioid safety if incorporated into opioid-related clinical decision tools, especially for high-risk patients (as determined by addiction risk assessments), even if prescribed opioids for a short period of time. UDS can be used to assess adherence to opioid therapy and detect the use of other substances which may interact dangerously with opioids or identify those individuals using illicit substances.

Risk stratification would identify the approximate UDS interval; this could be triggered in the electronic health record based on the stratification results. However, it was acknowledged that screening at routine intervals may not be helpful as some patients learn to manipulate UDS results if they know in advance when the next screening is scheduled.

There was general agreement that community prescribers needed to be supported if UDS is implemented. Some prescribers may not be aware of how to do UDS and this would be a barrier to performing and interpreting UDS in practice. It was agreed that prescribers may need assistance to correctly interpret the results and have easy access to information that would help them understand screening outcomes. Additionally, prescribers would need to know how to manage a patient with a confirmed positive result.

Practice – Watchful Dose

Watchful doses can be helpful trigger for primary care physician prescribing opioids to re-evaluate therapy.

Expert Panel Scoring

Members of the expert panel gave this practice a weighted score of **4.0** out of 5, indicating that the prescribing practice *will probably* improve opioid prescribing behaviour, *will probably* increase opioid safety for patients, and *should be* incorporated in opioid-related clinical decision support tools.

A watchful dose is a dose above which there is increased association with opioid related harms. While it was generally agreed that the concept of a watchful dose would be helpful, there was acknowledgement of the wide variability across jurisdictions and organizations as to what constitutes a watchful dose and what actions to take when that dose is approached. One panelist pointed out that Washington State’s watchful dose of 120mg ME guidelines has been associated with reducing opioid overdose deaths, although opioid associated deaths can occur at any dose.

There was also debate on whether or not the primary care prescriber should seek a second opinion once the patient has reached the watchful dose threshold. Some experts felt that the second opinion may not be accessible or may result in a recommendation for a higher dose of opioid.

Some agreement was created by a “traffic light” concept, whereby doses approaching watchful doses may be flagged yellow, and those above flagged in red, accompanied by suggested actions such as

increased frequency of monitoring, increased frequency of dispensing, or referral to a pain specialist.

Selected Examples of Watchful Doses

Organization	Watchful Dose	Reference
Canadian 2010 Guidelines (National Opioid Use Guideline Group)	200 mg ME	http://nationalpaincentre.mcmaster.ca/documents/opioid_guideline_part_b_v5_6.pdf
Washington State Agency Medical Directors’ Group Guidelines	120 mg ME	http://www.agencymeddirectors.wa.gov/Files/2015AMDGOpioidGuideline.pdf
Canadian Society for Addiction Medicine 2011 Position	200 mg ME	http://www.csam-smca.org/wp-content/uploads/2014/01/CSAM-Position-Statement-on-Opioid-Prescribing-for-Chronic-Non-Cancer-Pain.pdf
American Society of Interventional Pain Physicians (ASIPP) 2012 guidelines	91 mg ME	Manchikanti L, Abdi S, Atluri S, Balog CC, Benyamin RM, Boswell MV et al. American Society of Interventional Pain Physicians (ASIPP) guidelines for responsible opioid prescribing in chronic non-cancer pain: Part 2--guidance. Pain Physician 2012; 15:S1-S66.
Veterans Affairs (United States)	200 mg ME	http://www.va.gov/painmanagement/docs/cpg_opioidtherapy_fulltext.pdf

ME = morphine equivalent per day

Practice – Management of Co-Medications

In patients who are already taking benzodiazepines, community prescribers should taper the benzodiazepine to the lowest possible dose, with a goal of discontinuation.

Expert Panel Scoring

Members of the expert panel gave this practice a weighted score of **3.9** out of 5, indicating that the prescribing practice *will probably* improve opioid prescribing behaviour, *will probably* increase opioid safety for patients, and *should be* incorporated in opioid-related clinical decision support tools.

It is recognized that concomitant use of benzodiazepines and opioids can result in significant patient harm, especially in the elderly and patients on more than one benzodiazepine. Experts recommended reducing the benzodiazepine to the lowest possible dose; those on low-dose benzodiazepines may be able to be tapered off completely. While it is ideal that the benzodiazepine be tapered prior to the initiation of opioids, in reality, this may not be possible for acute pain situations.

Pharmacists are also a source of expertise in recommending a benzodiazepine taper when they are aware that an opioid has been prescribed.

Non-benzodiazepine medication classes that may need to be adjusted were also explored including other central nervous system depressants and psychotropic drugs. Panellists agreed that drug-drug and drug-disease interactions associated with opioids can be complex and expressed a need for more research and resources in this area.

Other concerns that were raised include identifying driving risks for patients on risky combinations of medications.

Practice – Assessment for and Management of Opioid Use Disorder

Primary care prescribers should be continually assessing for the presence of opioid use disorder and referring to addiction clinics where applicable and available.

Expert Panel Scoring

Members of the expert panel gave this practice a weighted score of **3.7** out of 5, indicating that the prescribing practice *will possibly to probably* improve opioid prescribing behaviour, *will possibly to probably* increase opioid safety for patients, and *may be useful to should be* incorporated in opioid-related clinical decision support tools.

Experts agreed that for primary care prescribers, this practice should deal mostly with assessment rather than management of opioid use disorder. In most areas, management would mean referral to an addictions specialist, who would assume the management role. With the exception of the primary care provider prescribing buprenorphine (see below), management concepts should play less of a role.

Experts discussed the proper terminology for “opioid use disorder” as primary care prescribers may not be familiar with this particular term. It was suggested and agreed that “opioid use disorder” should remain as it stays true to the DSM and its diagnostic criteria (see: <http://pcssmat.org/wp-content/uploads/2014/02/5B-DSM-5-Opioid-Use-Disorder-Diagnostic-Criteria.pdf>)

It was recognized however, that there may not exist a validated, clinically useful tool for primary care providers to use for the assessment of opioid use disorder.

Experts thought that including how to prescribe buprenorphine (Suboxone) and how to manage patients on this medication would be useful for primary care providers as many community physicians in the United States manage patients on buprenorphine successfully. It was also mentioned that supporting the use of buprenorphine for the primary care prescriber would be especially useful in more remote areas of the country, where access to specialists is more limited than in urban areas.

Practice – Reduced Doses in Patients at Risk of Toxicity

Prescribers should start opioids at lower doses in patients who are at high risk of opioid toxicity. This includes the elderly, those with impaired renal, hepatic or respiratory function, sleep apnea, heavy alcohol users, and those taking high-dose benzodiazepines or other sedating medications.

Expert Panel Scoring

Members of the expert panel gave this practice a weighted score of **3.6** out of 5, indicating that the prescribing practice *will possibly to will probably* improve opioid prescribing behaviour, *will possibly to will probably* increase opioid safety for patients, and *maybe use useful to should be* incorporated in opioid-related clinical decision support tools.

Panelists discussed the merits of including heavy alcohol drinkers and high-dose benzodiazepine users in the group.

Generally, experts felt there were other practices/principles that would be more useful to include in opioid-related clinical decision support software or that this practice could be incorporated into Practice #10 or #11.

Practice – Comorbid Mood Disorder Screening

Primary care prescribers should periodically screen patients for comorbid mood disorders using validated tools.

Expert Panel Scoring

Members of the expert panel gave this practice a weighted score of **3.5** out of 5, indicating that the prescribing practice *will possibly to will probably* improve opioid prescribing behaviour, *will possibly to will probably* increase opioid safety for patients, and *maybe use useful to should be* incorporated in opioid-related clinical decision support tools.

The presented practice encompassed screening of patients with validated tools to identify those with or at risk of mood, anxiety disorder or other mental health condition. There was agreement about the importance of addressing mental health disorders in opioid therapy and that proper treatment improves overall pain behaviour and function.

The practice proposed using PHQ-9 for screening of depression and GAD-7 for anxiety. However, experts suggested other screening alternatives, including HADS.

Members of the panel identified a number of risk assessment tools that they use in practice:

Tool	Additional Information
Patient Health Questionnaire (PHQ)-9	For screening of depression http://www.opioidrisk.com/node/3320 www.uspreventiveservicestaskforce.org/Home/GetFileByID/218
Generalized Anxiety Disorder (GAD)-7	For screening of anxiety http://www.opioidrisk.com/node/3706 http://archinte.jamanetwork.com/article.aspx?articleid=410326
Hospital Anxiety and Depression Scale (HADS)	For screening of anxiety and depression http://www.opioidrisk.com/node/3710

Practice – Initial Opioid Selection

Prescribers should use a low initial starting dose and tailor the medication to the clinical factors and co-morbidities of the patient

Expert Panel Scoring

Members of the expert panel gave this practice a weighted score of **3.3** out of 5, indicating that the prescribing practice *will possibly to will probably* improve opioid prescribing behaviour, *will possibly to will probably* increase opioid safety for patients, and *maybe use useful to should be* incorporated in opioid-related clinical decision support tools.

Experts acknowledged that opioids can cause significant harm if used without careful patient assessment and prudent opioid selection. This practice deals with how to select the appropriate opioid, and when presented, this practice generated much discussion.

Experts expressed that community prescribers should not be limited to certain opioid options when prescribing because of the subtle differences between the different opioids. It was felt that physicians often prescribe specific opioids mainly because of local education and familiarity with specific opioids, and this experience supports safe use of the drug.

However, experts expected that an EMR that held the functionality to incorporate patient-specific factors, such as renal dysfunction, may be better able to help guide prescribers to more appropriate options (e.g., opioids that are not renally excreted). Some panelists, however, felt that this practice of guiding prescriber opioid selection would be difficult to translate into the EMR in an easy-to-use format.

Other ideas that were discussed include automatic conversion of opioid doses to morphine equivalents (captured under Practice #18 – EMR safeguards: conversion to morphine equivalents), and identification of red-flag triggers (Practice #8).

There was general agreement by experts that the following principles support safe opioid selection:

- opioids can harm; start doses low
- take patient factors into consideration to guide prescribers to better options
- take drug factors and prescriber experience into account
- consider switching to long-acting opioid for chronic pain
- if possible, avoid high potency long-acting oxycodone and fentanyl patches

Practice – Dose Titration

Prescribers should start opioids at a dose no higher than 30-40 mg of morphine equivalents per day. When considering dose titration, doses should not be increased by more than 20-30% of the original dose, and only when pain and function have improved.

Expert Panel Scoring

Members of the expert panel gave this practice a weighted score of **2.7** out of 5, indicating that the prescribing practice *will only occasionally* to *will possibly* improve opioid prescribing behaviour, *will only occasionally* to *will possibly* increase opioid safety for patients, and is *not a priority* to *maybe use useful* to be incorporated in opioid-related clinical decision support tools.

The practice as presented to the panel included maximum starting doses, appropriate clinical situations for a dose increase, as well as a suggested dose. Experts felt that this practice, as presented, was too prescriptive and included too many concepts that would be hard to translate into a “how to” for the prescriber.

One expert suggested putting a limit (in morphine equivalents), after which if there was no improvement in function and pain, tapering the opioid off would be suggested.

Several experts felt that this practice would be low on their priority list and the expert panel scoring reflects this sentiment.

Practice – Automated Urine Drug Screening Interpretation

EMRs should provide supporting information, not interpretation of urine drug screening results, to primary care providers.

Expert Panel Scoring

Members of the expert panel gave this practice a weighted score of **2.4** out of 5, indicating that the prescribing practice *will only occasionally* to *will possibly* improve opioid prescribing behaviour, *will only occasionally* to *will possibly* increase opioid safety for patients, and *is not a priority* to *may be useful* to incorporate in opioid-related clinical decision support tools.

As originally presented to the expert panel, this practice was to have possible interpretations of urine drug screening results displayed to the primary care prescriber. This is closely associated with Practice #2.

Experts supported EMRs providing additional information (e.g., drug X breaks down into XX, XY, and XZ metabolites) regarding urine drug screening (UDS) to prescribers. They were, however, concerned about the EMR interpreting results (i.e., using algorithms) and drawing conclusions without taking into account the many nuances of UDS interpretation and without appreciating the clinical context.

They also reflected, as in Practice #2, on the need to provide management options when a concerning UDS result was identified, again highlighting the need for clinical context.

Practice – Use of As-Needed Dosing

As-needed dosing with immediate-release opioids for acute pain situations may be beneficial for some patient in certain circumstances (e.g., prior to activity that induces pain).

Expert Panel Scoring

Members of the expert panel gave this practice a weighted score of **1.6** out of 5, indicating that the prescribing practice *will not likely to only occasionally likely to improve opioid prescribing behaviour, will not likely to only occasionally likely to increase opioid safety for patients, and no need to not a priority to be incorporated in opioid-related clinical decision support tools.*

As originally presented to experts, this practice suggested that immediate-release opioids be used for initial titration, prior to activity that induces pain, and for exacerbations of neuropathic pain.

Experts felt that there were 2 distinct concepts presented the way the original practice was phrased: dose titration and as needed dosing; and that the focus should be on as-needed dosing as dose titration could be incorporated into other practices such as Practice #10.

Panelists generally felt that acute pain situations and chronic pain situations should be dealt with differently as they relate to as-needed dosing.

Discussion also included consideration of the use of non-pharmacologic options as a safer option if the patient requires only as-needed dosing.

Other items of note

During the course of the meeting, discussion ranged across a number of topics and themes not captured by the list of promising practices. Selected points are outlined here.

- There was discussion among the expert panel about not just putting the spotlight on the prescriber, but involving the entire community (e.g., police, pharmacy, prescribers) in safe opioid strategies. This would have the benefit of spreading the workload burden. For example, working with the local hospital to ensure the emergency department never provides refills for opioids.
- Some panelists incorporated random pill counts into the management of their opioid patients. This practice provides another manner to assess compliance, utilization, and safety in addition to UDS.
- A number of panelists expressed concern about access to specialized pain management expertise and addiction or substance abuse treatment expertise. They expressed caution when suggesting patients be referred to specialists; the specialist may not be available in a timely way and community prescribers may be on their own. In general, the expert panel thought that the national pain management and addiction services infrastructure was underdeveloped.
- Many of the panelists spoke of the importance of defining patient populations for which there is no evidence that opioids provide benefit, or that the risks of opioids outweigh any potential benefit. This information should be better disseminated to prescribers and to patients.
- There was broad agreement that the formal education of prescribing trainees and the ongoing education of prescribing practitioners needs to incorporate more instruction and assessment in acute and chronic pain, and opioid management.
- Several experts reinforced the need for prescribers to have a standardized process when using opioids. Rather than just renewing or increasing opioids, there has to be a comprehensive and appropriate assessment, a careful consideration of the risks and benefits, setting an appropriate goal of therapy, an integration of non-opioid alternatives, a slow and cautious initial dose trial, and continual and meaningful monitoring and re-assessment of function, pain, and physiologic, psychological, or social adverse effects. The experts reflected that doctors would never prescribe anti-hypertensives without careful deliberation of these steps, but prescribers often start opioids without any of these considerations.
- Panelists who were familiar with electronic medical records and other technological tools agreed that most EMRs and information management systems are not yet mature or capable enough to support robust and embedded clinical decision support tools. They did agree that there is enormous potential in integrated supports, but this may not be realized for some time.
- A number of panelists expressed caution about popular, professional, and regulatory messaging stigmatizing patients who truly require and benefit from opioids, or creating barriers for access to

those for whom opioids may be indicated. Prescribers must be mindful that opioids can be effectively used in certain patient populations.

- A number of panelists generously shared safe opioid management products from their own organizations or jurisdictions. These were used to further inform the preparation of this document. Documents that are publically available are linked here:
 - <https://www.cpsbc.ca/files/pdf/PRC-Prescribing-Principles.pdf>
 - <http://www.opioidmanager.com/>

Discussion

Since the list of 23 promising practices were vetted through expert collaborators prior to presentation to the expert panel, it was anticipated that in general, most of the practices would be scored positively. All potential practices generated engaging and productive discussion, resulting in refinement and clarification of a number of the principles or explanatory statements. There was variability in submitted scores for a number of the practices discussed, reflecting the wide variety of practice styles, experience, and opinions of the experts. Despite this, however, most scores submitted tended to be distributed around a singular mode.

The top 6 practices carried a weighted score of at least 4.6 out of 5 and thus the expert panel thought that each of these practices *will probably to highly likely* improve opioid prescribing behaviour, *will probably to highly likely* increase opioid safety for patients, and *should to must be* incorporated in opioid-related clinical decision support tools.

Conversely, the 5 lowest scoring practices scored 3.5 or less out of 5. These were often practices that were thought to be difficult to integrate into EMRs as well as practices that were deemed to be too prescriptive for the primary care providers.

Conclusion

This report summarizes the deliberations of the Expert Panel on Community Opioid Prescribing as they discussed aspects of opioid practice that they thought would have the most positive impact on prescriber behaviour and safety in the community.

Not all of these practices will be fully implementable in the current healthcare environment; existing technology may not be sufficiently mature, practice patterns are often resistant to change, and certain aspects of practice await more convincing evidence. Nevertheless, this document provides insight into a number of good or promising practices that may improve opioid safety and will ideally inform future efforts in addressing many of the vulnerabilities inherent when prescribing drugs. It is also hoped that EMR users, designers, and programmers will look upon these proceedings as an idea of “what could be done” in the context of electronic tools and strive to incorporate the electronic infrastructure needed to facilitate these practices in their products.

Other persons or organizations may wish to take the findings in this document into account when designing clinical decision supports or other interventions to improve opioid prescribing.

Other resources used in the preparation of this document, not referenced previously

National Pain Center – Canadian Guideline for Safe and Effective Use of Opioids for Chronic Non-Cancer Pain (re-written/updated)

<http://nationalpaincentre.mcmaster.ca/opioid/index.html>

Manchikanti L, Abdi S, Atluri S, Balog CC, Benyamin RM, Boswell MV et al. American Society of Interventional Pain Physicians (ASIPP) guidelines for responsible opioid prescribing in chronic non-cancer pain: Part 2--guidance. Pain Physician 2012; 15:S1-S66.

<http://www.painphysicianjournal.com/current/pdf?article=MTcwMw%3D%3D&journal=68>

Canada R, DiRocco D, Day S; A better approach to opioid prescribing in primary care; Journal of Family Practice

http://www.jfponline.com/fileadmin/qhi/jfp/pdfs/6306/JFP_06306_ArticleW1.pdf

Webster LR, Webster RM. Predicting aberrant behaviors in opioid-treated patients: preliminary validation of the Opioid Risk Tool. Pain Med.2005;6:432-442. <http://onlinelibrary.wiley.com/doi/10.1111/j.1526-4637.2005.00072.x/epdf>

Trafton, J Opioid Decision Support with Athena Presentation

http://www.hsrd.research.va.gov/for_researchers/cyber_seminars/archives/vci-092309.pdf

Interagency Guideline on Prescribing Opioids for Pain, Developed by the Washington State Agency Medical Directors' Group (AMDG) in collaboration with an Expert Advisory Panel, Actively Practicing Providers, Public Stakeholders, and Senior State Officials.

www.agencymeddirectors.wa.gov/Files/2015AMDGOpioidGuideline.pdf

Washington Chapter Washington Chapter - American College of Emergency Physicians

http://www.washingtonacep.org/postings/opioid_abuse_2011_acep.ppt

Anderson SH – 2011 Presentation Washington Chapter - American College of Emergency Physicians

http://www.washingtonacep.org/postings/opioid_abuse_2011_acep.ppt

Rx files Opioids in Chronic Non-Malignant Pain Troubleshooting Drug Therapy Issues

<http://www.rxfiles.ca/rxfiles/uploads/documents/Pain-Chronic-NonCa-NEWSLETTER-Header.pdf>

McCarthy DM, Davis TC, et al. Take-Wait-Stop: A Patient-Centered Strategy for Writing PRN Medication Instructions J Health Commun. 2013 Dec; 18(Suppl 1): 40–48

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3814925/>