Featured Articles

Community-based Naloxone: A Canadian Pilot Program.... 4
KATHRYN A. DONG MD, MSc., FRCp, DABEM

Prevalence of Illicit Methadone Use as shown in New Patients entering a Methadone Maintenance Treatment Program .............. 10
CAROLYN PLATER-ZYBERK MSW

CSAM 2012
Conférence Abstracts .............. 14
Message from the Editor: Revamping our Journal!

Last year, at the last meeting of our Board in Vancouver, I was approached to assume the duties of Chief Editor. I have no illusion that editing our fledging Journal has its promises but also its challenges.

First I would like to thank our founding Editor, Dr. Michael Varenbut who after enhancing the visual and content qualities of our Bulletin, had the vision to complement it with a scientific publication as an added membership benefit. I am glad that we will still be able to rely on his “can do” attitude as well as organizational skills as he oversees the rapid evolution of our Bulletin and remains an active member of our Journal’s Editorial Board.

The Journal’s Functions- Seeking a niche for our publication, I was fortunate to come across two editorials in the Canadian Medical Association Journal (CMAJ) who has just completed an editorial change. Richard Smith, former editor of the British Medical Journal (BMJ) was quoted to have suggested several functions for a medical journal, some may be relevant to our Journal.

1. Information- keeping our membership abreast of the news relevant to our practice is a task we will share with the Bulletin.
2. Reform and community debates- our Journal should foster informed debates about contentious issues that abound in our field. Ideally, papers presenting the pros and cons of an issue should stimulate constructive feedback from our readership.
3. Scientific dissemination- our Journal should be a platform for Canadian based research as well as international research of relevance to our practice.
4. Education- continuing medical education (CME) credits is becoming a must for our licensing process. Increasingly Journals have featured a CME article as part of their offerings. We shall explore the process of securing credits for our readership.

Diversifying the submission - In an effort to promote our journal, we have updated our online submission and renewal system and diversified the types of articles to be submitted. Please peruse the latest draft of our process on the website: www.csam.org.

In conclusion, revamping our Journal requires a group effort from the editors but also very much from you, our authors and readers. We look forward to a Journal with interactive participation and feedback.

Nady el-Guebaly, MD
Chief Editor

Submissions to the Journal

Instructions to Authors for submission to the journal are located on the CSAM webpages (www.csam.org) under the sidebar: CSAM Journal & Weekly Bulletin.
Scope & Mission of the CJAM

The Canadian Journal of Addiction Medicine is the official publication of the Canadian Society of Addiction Medicine. It is a new publication whose goal is to provide a unique Canadian forum for presentation of evidence-based, peer-reviewed clinical information and scientific materials, to clinicians working in the field of Addiction Medicine.

The “Bulletin” section within the CJAM, will contain the traditional sections and materials contained in past issues of the “CSAM Bulletin”.

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Community-based Naloxone: A Canadian Pilot Program

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Presentations: This work was presented as a poster at the Canadian Association of Emergency Physicians Annual Scientific Conference in Calgary, Alberta in June 2009 and the Society for Academic Emergency Medicine Annual Conference in May 2009 in New Orleans, LA

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Conflicts of Interest: None to Declare

Abstract

Objectives: This study was designed to gather data on the implementation of community-based naloxone delivery for opioid overdose in a Canadian setting.

Participants: A convenience sample of 50 clients accessing a needle exchange program for harm reduction supplies.

Setting: This program took place in an urban Canadian city and was based out of a needle exchange program.

Intervention: After written, informed consent was obtained, all participants were trained in overdose recognition, artificial respiration, naloxone administration and emergency medical services (EMS) activation.

Outcomes: Most participants were male (30, 60%) and the average age was 45.1 years (±8.6 years). The majority (40, 80%) used opioids either daily (36, 72%) or weekly (4, 8%). Most (39, 78%) had experienced an overdose themselves and the vast majority (46, 92%) had witnessed someone else overdose. Over the 20-month study period, naloxone use was reported nine times. It was most often administered in a private residence (4, 44%). It was administered to another individual in eight cases; one person self-administered naloxone. Artificial respiration was provided in four cases, and a clean needle and syringe were used in all cases; EMS was activated in only one case. No adverse reactions and no deaths after naloxone use were reported.

Conclusions: Community-based naloxone programs can be implemented in a Canadian setting and have the potential to reduce the morbidity and mortality associated with opioid overdose. Significant barriers to activating EMS still exist in this setting.

Introduction

The morbidity and mortality associated with illicit drug misuse is high and appears to be increasing in Canada (1, 2). In addition to the health consequences, illicit drug use also incurs health care system costs including emergency medical services (EMS) activation, emergency department (ED) visits, and hospitalization. The financial costs associated with illicit drug misuse were estimated at $262 (Can) per capita in 2002 (2). There are over 80,000 regular illegal opioid users in Canada (3) and in 2002 the number of opioid related overdose deaths in Canada was estimated to be 958. The province of Alberta has the highest rate in Canada with over double the national average of overdose deaths (12.9 vs. 5.9 overdose deaths per 100,000 population age 15-49 years) (3). Recent concerns about the rising non-medical use of prescription opioids have also been identified (4, 5).

Naloxone quickly reverses the respiratory depression and progressive hypoxia associated with opioid overdose and is associated with minimal side effects (6). Community-based naloxone programs – advocated as one approach to mitigate the effects of overdose - train active opioid users to recognize overdose signs, provide basic life support, administer naloxone and activate EMS (7, 8). Such programs have been successfully implemented in the United States (9 – 13), United Kingdom (14), Germany (14) and Italy (15); however, in Canada, delivery of naloxone almost always depends on access to health care providers.

While these programs are controversial (16, 17), several studies have demonstrated that opioid users can be successfully trained in overdose recognition and appropriate naloxone use (18, 19). Such community-based programs have reported successful reversal of opioid overdoses after naloxone administration (9, 13). Support in the drug using community is high (70-90%) (20 – 22); over 80% of participants accessing a needle exchange program in one Canadian city were supportive of
a trial evaluating a community-based naloxone program (23). Several studies have also reported that participants reduce their own drug use after receiving naloxone training (9, 10) and that participants actively disseminate their new knowledge and skills to a wider community (24).

In 2005, in response to a local increase in opioid-related deaths in Edmonton, Alberta, the local needle exchange program, Streetworks, implemented the first Canadian community-based naloxone program. The objective of this study was to evaluate the implementation of a naloxone program in a Canadian setting.

**Participants, Setting and Intervention**

Using posters, word-of-mouth and a booklet focused on overdose prevention, a convenience sample of participants was recruited through the Streetworks needle exchange program. This program serves approximately 400 unique users per month (25), and provides needle exchange services, user support groups, nursing services and educational information.

Interested clients were referred to the registered nurse in charge of the project. In order to participate in the study, clients had to: i) provide written, informed consent; ii) be familiar to needle exchange staff (i.e. not first time clients); iii) be willing to participate in a training session; and, iv) be willing and able to report any naloxone use to program staff. Clients were excluded if they were i) unable to provide informed consent (e.g. intoxicated); ii) unknown to program staff and/or likely to be only transiently accessing the program. This study was approved by the Health Research Ethics Board at the University of Alberta.

After written informed consent was obtained, study subjects were individually trained. The training program used harm reduction as its guiding principle and consisted of the following modules: discussion of overdose prevention; recognition of an overdose in oneself and others; provision of artificial respiration with a pocket mask; an overview of naloxone and its effects; intramuscular administration of naloxone; EMS activation; and a review of the contents of the naloxone kit. Optional training in cardiopulmonary resuscitation was offered. Participants then watched a training video about naloxone programs. Training took approximately 30 to 45 minutes. Protocols for reporting naloxone use and replenishment of supplies were reviewed.

Participant recruitment began in November 2005 and continued until fifty participants had been recruited (July 2006). Baseline questionnaires at the time of enrollment collected information on the following: demographics, current drug use patterns, experience with overdose, and experience with naloxone. All participants that reported using naloxone in the community were asked to complete a post-use questionnaire which collected information on when and where the naloxone was used, to whom it was administered, which drugs were involved in the overdose, any effects of naloxone, use of kit supplies and EMS activation. We attempted to contact all study participants at one year (until July 2007) in order to reevaluate their personal drug use, recent overdose experiences, and long-term satisfaction with their naloxone training. Contact for follow up was completed by word of mouth and by attempting to locate individuals through common acquaintances. All three questionnaires were tested by five community members prior to the start of the study for readability and acceptability; community members who assisted with questionnaire development were paid $10 CAN for their expertise. Thereafter, study participants did not receive any financial compensation.

The analysis is mostly descriptive in nature. Categorical variables are described with percentages, while continuous variables are described with means and standard deviations or medians and interquartile ranges, as appropriate. Paired analyses using McNemar’s tests were used for pre and post comparisons. A p-value of ≤ 0.05 was considered statistically significant.

**Results**

A total of 50 clients participated in the community-based naloxone program (Table I). Most participants were regular opioid users; 36 (72%) reported daily use, 4 (8%) reported weekly use, 5 (10%) reported occasional use and only 5 (10%) were not currently using opioids. Use of other drug classes was also high (Table II). The majority of participants had experienced a previous overdose themselves and/or witnessed an overdose in someone else (Table II). The majority of participants had experienced a previous overdose themselves and/or witnessed an overdose in someone else (Table II). The majority of participants had experienced a previous overdose themselves and/or witnessed an overdose in someone else (Table II). Most participants (38 [76%]) had previously taken a first aid or CPR class and 30 (60%) had delivered chest compressions in the past.

All participants completed the training session. At follow-up, naloxone use was reported nine times during the study period (Table III). In all cases, the person who had overdosed had taken an opioid: oxycodone (4, 44%), methadone (2, 22%), heroin (1, 11%), morphine (1, 11%), and/or hydromorphone (1, 11%). The drug was taken intravenously in all but one case.
where methadone was ingested by mouth. Artificial respiration was provided in four cases (44%); a pocket mask was used in two cases (22%). Chest compressions were administered in two (22%) cases. In all cases a clean needle and syringe were used to administer the naloxone and in eight (89%) cases an alcohol swab was used to clean the skin prior to injection. The reference card was used in three (33%) cases. Users were trained to administer a second dose of naloxone in five minutes if there was no response to the first dose; however, a second dose was only required in one case.

Despite eight of nine participants reporting that a phone was nearby at the time of naloxone administration, EMS were only activated once. Reasons cited for not activating EMS were: person woke up with the naloxone and/or the person decided to watch them on their own (2, 22%); concern that the police would become involved (1, 11%); thought the person would recover unaided (1, 11%); and concern that someone would be blamed for the overdose (1, 11%). In the cases where EMS were not activated, all naloxone recipients were observed by study participants for longer than 90 minutes (the half-life of naloxone), in case the symptoms of overdose recurred after the naloxone wore off. In all cases the recipient was reported to have survived the overdose.

Study participants who administered naloxone felt they had enough training (8, 89%) and only one person reported that they felt unsure what to do. The majority of participants (8, 89%) said that they would administer naloxone again in the same situation. No one reported using any of the supplies in the naloxone kit for other purposes.

At one year, only 15 (30%) of individuals were available for follow-up. All participants rated the training they received in the naloxone program as worthwhile. Thirteen (87%) were trained to administer basic life support measures and naloxone administration; they successfully administered naloxone nine times in the community setting over a one-year follow up period. This study supports previous evidence that users of illicit drugs are interested in learning more about overdose and in helping themselves and others (23). Significant barriers, however, still prevent the activation of EMS - EMS were only activated once during the course of this study. This was similar to a US study where EMS were called in only two of twenty community-based naloxone administrations (9). Concern about police involvement and being blamed for the overdose were cited as reasons for not calling EMS. Previous local data suggests 37% of people avoid calling EMS some or all of the time when an overdose occurs (23). Australian studies (26) have also documented high rates of EMS avoidance. While engaging both EMS providers and illicit drug users in a discussion on how to reduce the barriers to EMS activation should be an essential next step, ensuring that training programs impress upon participants the need for continued observation is also of paramount importance.

Importantly and coincidently, while this program did not encourage participants to change their own drug use patterns, at follow up 73% of available participants reported a reduction in their own drug use after receiving naloxone training. Similar effects in other studies have been observed: participants in Los Angeles reported that they decreased their drug use (10) and in San Francisco the frequency of heroin injection was found to decrease six months after naloxone training (9). This suggests that training regular drug users in naloxone use may result in improved health outcomes for both trainees and those that they assist. This trend warrants further study.

This study has several limitations. It is limited by a small sample size. The convenience sample methods may have caused selection bias whereby the clients enrolled in the study may not accurately represent all individuals who regularly use opioids or access needle exchange programs. Our one-year follow up (15/50, 30%) was low; however, this is comparable to similar studies in this target population (11). Due to lack of a control group, we are also unable to comment on this program’s impact on health-care related outcomes like mortality. While all participants who received naloxone were either observed in the community or transported by EMS and no deaths were reported, it is unknown whether these individuals would have died without a naloxone program. Finally, we were unable to systematically track missed cases of community-based naloxone administration by EMS, hospital or medical examiner records. Controlled studies with comprehensive community-wide tracking of opioid-overdose related deaths are warranted to determine if these programs can reduce the high mortality rates associated with chronic illicit opioid use.

The community-based naloxone program described here has

Discussion

In this first Canadian pilot program, fifty clients of a needle exchange program were trained in overdose recognition, basic life support measures and naloxone administration; they successfully administered naloxone nine times in the community setting over a one-year follow up period.
been sustained. The program was only funded for the first three years; however, it remains in place due to the important benefits seen by community members and workers. To date, approximately 150 people have been trained.

In conclusion, this pilot study suggests that the implementation of a community-based naloxone program is possible in a Canadian setting. These programs have the potential to reduce overdose deaths and drug use among trained participants. Further study and more systematic tracking of participants and outcomes are needed.

Table I: Demographics of Participants of a Community-based Naloxone Program

<table>
<thead>
<tr>
<th>Variable</th>
<th>N (%) or Mean (± SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male gender</td>
<td>30 (60%)</td>
</tr>
<tr>
<td>Age</td>
<td>45.1 (± 8.6) years</td>
</tr>
<tr>
<td>Ethnicity</td>
<td></td>
</tr>
<tr>
<td>White/British/Canadian</td>
<td>20 (40%)</td>
</tr>
<tr>
<td>First Nations (status)</td>
<td>12 (24%)</td>
</tr>
<tr>
<td>Métis</td>
<td>11 (22%)</td>
</tr>
<tr>
<td>Other</td>
<td>7 (14%)</td>
</tr>
<tr>
<td>Employment Status</td>
<td></td>
</tr>
<tr>
<td>Disabled</td>
<td>21 (42%)</td>
</tr>
<tr>
<td>Unemployed</td>
<td>12 (24%)</td>
</tr>
<tr>
<td>Working full-time</td>
<td>5 (10%)</td>
</tr>
<tr>
<td>Working part-time</td>
<td>1 (2%)</td>
</tr>
<tr>
<td>Student</td>
<td>1 (2%)</td>
</tr>
<tr>
<td>Other</td>
<td>10 (20%)</td>
</tr>
<tr>
<td>Highest Level of Education</td>
<td></td>
</tr>
<tr>
<td>High school</td>
<td>23 (46%)</td>
</tr>
<tr>
<td>College or University</td>
<td>20 (40%)</td>
</tr>
<tr>
<td>Grade School</td>
<td>6 (12%)</td>
</tr>
<tr>
<td>Elementary</td>
<td>1 (2%)</td>
</tr>
</tbody>
</table>

Table II: Drug use Patterns and Experience with Overdose of Study Participants

<table>
<thead>
<tr>
<th>Variable</th>
<th>N (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Opiate Use during the past 6 months*:</td>
<td></td>
</tr>
<tr>
<td>Morphine</td>
<td>40 (80%)</td>
</tr>
<tr>
<td>Oxycodone</td>
<td>31 (62%)</td>
</tr>
<tr>
<td>Codeine</td>
<td>29 (58%)</td>
</tr>
<tr>
<td>Hydromorphone</td>
<td>27 (54%)</td>
</tr>
<tr>
<td>Methadone</td>
<td>25 (50%)</td>
</tr>
<tr>
<td>Heroin</td>
<td>10 (20%)</td>
</tr>
<tr>
<td>Propoxyphene</td>
<td>6 (12%)</td>
</tr>
<tr>
<td>Other drug use during the past 6 months*:</td>
<td></td>
</tr>
<tr>
<td>Crack</td>
<td>42 (84%)</td>
</tr>
<tr>
<td>Benzodiazepines</td>
<td>32 (64%)</td>
</tr>
<tr>
<td>Marijuana</td>
<td>29 (58%)</td>
</tr>
<tr>
<td>Alcohol</td>
<td>25 (50%)</td>
</tr>
<tr>
<td>Cocaine</td>
<td>25 (50%)</td>
</tr>
<tr>
<td>Methamphetamine</td>
<td>16 (32%)</td>
</tr>
<tr>
<td>Experience with overdose</td>
<td></td>
</tr>
<tr>
<td>Ever overdosed themselves</td>
<td>39 (78%)</td>
</tr>
<tr>
<td>Ever seen anyone else overdose</td>
<td>46 (92%)</td>
</tr>
<tr>
<td>Ever been given naloxone</td>
<td>9 (18%)</td>
</tr>
</tbody>
</table>

* Totals N > 50 due to concurrent use of multiple opioids and other drug classes.
Table III: Reported naloxone use among 50 Edmonton area opioid users after 1 year of a pilot project

<table>
<thead>
<tr>
<th>Variable</th>
<th>N (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Recipient:</strong></td>
<td></td>
</tr>
<tr>
<td>A friend</td>
<td>3 (33%)</td>
</tr>
<tr>
<td>An acquaintance</td>
<td>3 (33%)</td>
</tr>
<tr>
<td>My partner</td>
<td>1 (11%)</td>
</tr>
<tr>
<td>A stranger</td>
<td>1 (11%)</td>
</tr>
<tr>
<td>Myself</td>
<td>1 (11%)</td>
</tr>
<tr>
<td><strong>Location of Use:</strong></td>
<td></td>
</tr>
<tr>
<td>Private Residence</td>
<td>4 (44%)</td>
</tr>
<tr>
<td>Other</td>
<td>3 (33%)</td>
</tr>
<tr>
<td>On the street</td>
<td>2 (22%)</td>
</tr>
<tr>
<td><strong>Drugs involved in the overdose</strong></td>
<td></td>
</tr>
<tr>
<td>Opioid</td>
<td>9 (100%)</td>
</tr>
<tr>
<td>Cocaine/Crack</td>
<td>4 (44%)</td>
</tr>
<tr>
<td>Other drugs</td>
<td>2 (22%)</td>
</tr>
<tr>
<td>Alcohol</td>
<td>1 (11%)</td>
</tr>
</tbody>
</table>

* Totals N>9 due to more than one drug being involved in some overdoses.

Table IV: Comparison of Participant Drug Use Before and After Naloxone Training

<table>
<thead>
<tr>
<th>Drug</th>
<th>Baseline (N)*</th>
<th>Exit (N)</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Opioids:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heroin</td>
<td>3</td>
<td>3</td>
<td>1.0</td>
</tr>
<tr>
<td>Morphine</td>
<td>13</td>
<td>7</td>
<td>0.05</td>
</tr>
<tr>
<td>Hydromorphone</td>
<td>8</td>
<td>4</td>
<td>0.26</td>
</tr>
<tr>
<td>Codeine</td>
<td>9</td>
<td>8</td>
<td>1.0</td>
</tr>
<tr>
<td>Oxycodone</td>
<td>12</td>
<td>7</td>
<td>0.12</td>
</tr>
<tr>
<td>Propoxyphene</td>
<td>2</td>
<td>1</td>
<td>0.60</td>
</tr>
<tr>
<td>Methadone</td>
<td>7</td>
<td>8</td>
<td>1.0</td>
</tr>
<tr>
<td><strong>Stimulants:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crack</td>
<td>14</td>
<td>12</td>
<td>0.13</td>
</tr>
<tr>
<td>Cocaine</td>
<td>8</td>
<td>3</td>
<td>0.60</td>
</tr>
<tr>
<td>Methamphetamines</td>
<td>5</td>
<td>1</td>
<td>0.17</td>
</tr>
<tr>
<td><strong>Others:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Benzodiazepines</td>
<td>13</td>
<td>8</td>
<td>0.11</td>
</tr>
<tr>
<td>Marijuana</td>
<td>7</td>
<td>8</td>
<td>1.0</td>
</tr>
<tr>
<td>Alcohol</td>
<td>8</td>
<td>9</td>
<td>1.0</td>
</tr>
</tbody>
</table>

* N represents the number of people who reported regular use during the last six months.

References


Baca CT, Grant KJ. Take-home naloxone to reduce heroin death. Addiction 2005;100(12):1823-31.


Prevalence of Illicit Methadone Use as shown in New Patients entering a Methadone Maintenance Treatment Program

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Abstract

Background: While there are significant harms and dangers associated with illicit methadone use, the exact scope of the problem is largely unknown. However, we do know that annual deaths from methadone are rising and the literature indicates that a significant number of these deaths are directly related to illicit methadone use. Given this, methadone diversion should be a primary concern for all methadone providers and treatment programs.

Methods: We conducted a medical record review of consecutive admissions to a large methadone maintenance treatment program over a 4-year period to determine the prevalence of confirmed methadone use prior to methadone treatment initiation.

Results: 5805 records were examined; a total of 5144 met the criteria as a “new initiate” on mmtp. Of these 5144 new initiates 1062 (20.6%) were identified via urinalysis to have illicit methadone present.

Conclusions: Our study shows the prevalence of illicit methadone use in patients initiated on methadone maintenance over a 4-years period to be at least 20.6%.

Introduction

Methadone is a synthetic opioid used in the treatment of opioid dependency (CPSO, 2005). When taken within the context of a Methadone Maintenance Treatment Program (MMTP) as a prescribed medication, methadone is considered a safe treatment with significant benefits (CPSO, 2005). Prescribed methadone helps to prevent withdrawal symptoms associated with opioid use, reduces opioid drug cravings, blocks the effects produced by other shorter acting opioids and improve one’s overall daily functioning (Breslin & Malone, 2006; Seymour et al, 2003). On a greater societal level, methadone maintenance treatment has been associated with a reduction of illicit opioid drug use, reduction in crime rates, reduction in mortality and morbidity rates associated with opioid use and an overall enhancement in social productivity (CPSO, 2005; Lewis, 1997).

As an opioid with a long half-life, methadone has a high potential for opioid toxicity and death even when prescribed by health professionals (CPSO, 2005). This potential for toxicity is increased significantly when ingested with other sedating chemicals. In fact, just 10 mg of methadone can be enough to kill a child and 30 mg-50 mg can be enough to kill an opiate naive adult (CPSO, 2005), evidence of this is reported in the literature on methadone related deaths (CPSO, 2005; Seymour et al 2003; Fountaine et al, 2000; Cicero, 2003; Green et al, 2000).

In part because of its long-acting effect, there exists a substantial black market for methadone (Fountaine et al, 2000; Bell & Zador, 2000; McDermott & McBride, 1993). The primary source of methadone diversion is when individuals sell their prescribed take home doses (“carries”) of methadone for profit (Lauzon et al, 1994) or give to someone other than whom it was prescribed (Lauzon et al, 1994). Individuals are granted the privilege of earning take home doses on the basis of demonstrated clinical stability, however, a review of the literature demonstrates that many individuals with these take home dose privileges actually misuse the doses they are given (Varenbut, et al , 2007). Even when prescribed methadone is consumed within a clinic or pharmacy as a monitored medication, some individuals still retain part of their dose in their mouth and then spit it back, when they leave (Lauzon et al, 1994; Lancelin et al, 2005). This “spit back” is then later sold or given to other individuals of whom it was not prescribed. Pharmacy theft of methadone also contributes to the illicit methadone problem (Lauzon et al, 1994). Lastly, methadone prescribed for the treatment of pain, is another likely source of diversion, as the regulations governing this are much more lax with respect to dosage, take home doses, and overall program compliance monitoring. Research reveals a direct correlation in methadone related deaths with increases in methadone prescribing for pain management (Paulozzi LJ et al, 2006).
While there are significant harms and dangers associated with illicit methadone use, the exact scope of the problem is largely unknown. A review of the literature reveals that empirical data on the rates of illicit methadone use are lacking and might be lower than expected (Vlahov et al, 2007). A very early study done on this topic found that 43% of addicts entering treatment reported illicit methadone use (Weppner et al, 1972). A more recent study found that of 2811 users enrolled in their longitudinal study only 493 people (17.5%) reported the use of illicit methadone (Vlahov et al, 2007). Given that much of the previous studies relied primarily on patient self-report rather than objective analysis, this present study seeks to identify the prevalence of illicit methadone use among treatment seeking opioid addicts through objective urinalysis.

Method

Population: The study was conducted on 5805 new patients entering a MMTP in 31 community-based clinics, across Ontario, Canada.

Design: This is a medical record review of consecutive, new patients initiated at a methadone maintenance treatment program during a four-year period (2007 - 2010). Upon initial assessment, all patients were required to submit a supervised sample for urinalysis. All urines were screened for the presence of EDDP (2-ethylidene-1, 5-dimethyl-3, 3-diphenylpyrrolidine) the main metabolite of methadone. The urine analysis used involves the iMDx™ Prep assays performed by the iMDx™ analyzer, which is manufactured by Novx Systems in Richmond Hill, Ont. These include qualitative and semi-quantitative homogeneous enzyme immunoassays for methadone metabolite (EDDP), cocaine metabolite, benzodiazepine, opiates, oxycodone, amphetamines, phencyclidine, cannabinoid, Ecstasy and barbiturates; a quantitative enzymatic assay for ethanol; and a quantitative biochemical assay for creatinine. In addition, the iMDx™ analyzer provides a quantitative pH measurement using an ion-selective electrode. Regular quality control procedures were performed to assure proper performance of the assay.

All charts of patients whose initial urines tested positive for EDDP were then put through a secondary manual medical review, by one researcher C.P.Z. Patients that were identified as having a valid methadone prescription (i.e. transferring from another MMTP or released from corrections or hospital) were excluded, as did not fit the criteria as a new initiate to methadone.

Measurements: We defined EDDP-positive urine as the presence of EDDP above the normal range of between 100 ng/ml-12,000 ng/ml, for those ingesting regular methadone doses, on the MMTP. This served as the reference standard for the determination of methadone consumption. We defined a negative EDDP level as being below 100 ng/ml. We defined a “new initiate” as a patient who was not currently receiving an active prescription for methadone from a valid source (ie. corrections, hospital, or another MMTP provider).

Statistical analysis: We calculated the confirmed prevalence of illicit methadone use prior to MMTP initiation for each year during the 4-year study period simply by dividing the number of EDDP-positive urines in MMTP initiates by the total number of MMTP new initiates for the respective years. We repeated this for the total number of cases during the 4-year study period.

Results

The mean age of patients in this study was 35.1 years, ranging from 17-75 years. Other demographics are shown in Table 1. As shown in Table 2, in total 5805 patients entered this particular methadone maintenance treatment program over a four-year period. It was determined that of these 5805 patients; 1723 of them presented with positive EDDP levels (29.6%). Of these 1723 patients, 661 were excluded as a manual record review revealed that these patients had a valid prescription for methadone upon initiation to this program (e.g. transfer patients from another program, release from a correctional facility or hospital) and therefore did not meet the criteria as a “new initiate”. In total 1062 patients appear to have presented with illicit methadone use. As revealed in Table 2, the results illustrate a four-year prevalence of illicit methadone use to be 20.6%. Table 3 illustrates the breakdown of illicit methadone users by sex and age.

Discussion

The results of this study demonstrate rates of illicit methadone use in new admissions just prior to methadone maintenance treatment program initiation to be approx 20%. Given the time span in which this study was conducted, it is apparent that rates have held relatively constant in relation to the number of initiates entering MMTP, perhaps noting a slight increase over the last two years of the study period. Furthermore, there
appears to be no variations in age or sex, with respect to illicit consumption.

The major limitation of this study is that it was based on treatment seeking patients only. Further studies looking at opioid addicts not wishing to enter methadone treatment may yield different rates of illicit methadone use. Another limitation was this study was simply focused on rates of illicit use via urinanalysis and it did not collect further data, other than gender and age that might identify unique characteristics of those that do use illicit methadone. Furthermore, given that methadone is detectable via urine for two to three days, this study may underestimate the true prevalence of diverted methadone in MMTP initiates. As well, it is likely that many patients who use illicit methadone do not ingest it daily for a variety of reasons. This would further diminish, and likely underestimate the extent of methadone detection in the urine samples collected.

The results of this study should be of significant value to all those working in the field of methadone maintenance given the severe risks and consequences that diverted and subsequent consumption of illicit methadone can have (CPSO, 2005; Cicero, 2005; Seymour et al, 2003; Green et al, 2000; Fountain et al, 2000). These results may help guide methadone treatment professionals when assessing patient’s clinical stability and when granting take-home dose privileges. These findings also underscore the importance of close monitoring of all methadone doses to ensure patients consume their methadone as prescribed and do not divert via “spit-back”. Close monitoring and supervision of take home doses (carries), is also of paramount importance.

Table 1. Demographic Characteristics

<table>
<thead>
<tr>
<th>Year</th>
<th>Total MMTP Initiates</th>
<th>Mean Age</th>
<th>Sex</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>1326</td>
<td>36.6</td>
<td>Males: 831</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Females: 495</td>
</tr>
<tr>
<td>2008</td>
<td>1544</td>
<td>35.7</td>
<td>Males: 945</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Females: 599</td>
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<tr>
<td>2009</td>
<td>2136</td>
<td>34.5</td>
<td>Males: 1307</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Females: 829</td>
</tr>
<tr>
<td>2010</td>
<td>799</td>
<td>33.9</td>
<td>Males: 449</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Females: 350</td>
</tr>
<tr>
<td>Total</td>
<td>5805</td>
<td>35.1</td>
<td>Males: 3532 (60%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Females: 2273 (40%)</td>
</tr>
</tbody>
</table>

Table 2. New MMTP Initiates and EDDP positive Urines

<table>
<thead>
<tr>
<th>Year</th>
<th>Total MMTP Initiates</th>
<th>Total # of EDDP+ve</th>
<th>Excluded records</th>
<th>Total MMTP initiates corrected</th>
<th>EDDP+ve corrected</th>
<th>EDDP Illicit %</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>1326</td>
<td>364</td>
<td>141</td>
<td>1185</td>
<td>223</td>
<td>18.8</td>
</tr>
<tr>
<td>2008</td>
<td>1544</td>
<td>433</td>
<td>177</td>
<td>1367</td>
<td>256</td>
<td>18.7</td>
</tr>
<tr>
<td>2009</td>
<td>2136</td>
<td>632</td>
<td>231</td>
<td>1905</td>
<td>401</td>
<td>21.0</td>
</tr>
<tr>
<td>2010</td>
<td>799</td>
<td>295</td>
<td>112</td>
<td>687</td>
<td>182</td>
<td>26.5</td>
</tr>
<tr>
<td>Total</td>
<td>5805</td>
<td>1723</td>
<td>661</td>
<td>5144</td>
<td>1062</td>
<td>20.6</td>
</tr>
</tbody>
</table>

Table 3. Breakdown of Illicit EDDP+ initiates by age and sex

<table>
<thead>
<tr>
<th>Year</th>
<th>Total EDDP+</th>
<th>Males</th>
<th>Female</th>
<th>Mean age (males)</th>
<th>Mean Age (females)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>223</td>
<td>142</td>
<td>81</td>
<td>38.3</td>
<td>38.1</td>
</tr>
<tr>
<td>2008</td>
<td>256</td>
<td>143</td>
<td>113</td>
<td>37.9</td>
<td>36</td>
</tr>
<tr>
<td>2009</td>
<td>401</td>
<td>208</td>
<td>193</td>
<td>36.5</td>
<td>33.2</td>
</tr>
<tr>
<td>2010</td>
<td>182</td>
<td>89</td>
<td>93</td>
<td>36.8</td>
<td>34.8</td>
</tr>
</tbody>
</table>

References


Smoking Cessation: A Contemporary Approach
Andrew Pipe, CM, MD
University of Ottawa Heart Institute

Smoking cessation is the most powerful, effective and efficient of all preventive interventions. The importance of smoking cessation is more often expressed in rhetoric rather than in the delivery of effective, evidence-based, contemporary programmes of cessation. Systematic approaches to the identification and treatment of smokers in all settings should be seen as a standard of care in the 21st century. Unambiguous, non-judgmental, personally relevant advice regarding the importance of cessation allied with best-practice use of cessation pharmacotherapy can substantially increase cessation rates. Current practices and controversies will be addressed in this presentation which will also address the needs of those with other co-morbidities.

Catalyst Program
Carolyn Whiskin

A comprehensive, interactive, guidelines-centric, flexible, modular, tool-based continuing health education (CHE) program tailored to augment the knowledge and skills of Canadian pharmacists on how to manage tobacco dependence using a standard approach and practical tools in their everyday practice. The program is designed to encourage knowledge translation and clinical application of the United States Public Health Service clinical practice guidelines on Treating Tobacco Use and Dependence: 2008 Update* through discussion of realistic cases and practice-based tools that can be adapted to reflect different pharmacy practice and provincial realities. There are five modules that comprise the CATALYST program. Modules 1, 2 and 5 are delivered in novel, interactive, audio-based CD-ROM format that lends itself to flexible self-learning. Modules 3 and 4 are designed as interactive, live workshop programs led by a trained facilitator.

Neurobiology Of Smoking Cessation
Dr. Peter Selby
Centre for Addiction & Mental Health

Tobacco Addiction kills more people than other substance use and alcohol use combined. Although it is often the first addiction to start and the last one to be treated, most addicts do not describe it as their drug of choice. Moreover, addiction treatment providers often fail to address this addiction because of belief and lack of understanding of how to address this addiction concurrently with other addictions. Recent advances in the neurobiology of addictive disorders (specifically tobacco addiction) and smoke free bylaws have increased options to address this addiction. This talk will describe the neurobiological basis of this particular addiction, review the evidence for intervention and describe effective behavioural and pharmacological strategies in various concurrent addictive disorders.

Motivational Interviewing For Smoking Cessation
Alexandra Andric & Dr. Peter Selby
Centre for Addiction and Mental Health

Tobacco use exacts a major toll on the lives of Canadians, resulting in 37,000 deaths per year. Health care practitioners can play an important role in motivating behavior change with regards to tobacco dependent individuals. Through the use of a case study, this session will focus on the basic principles of motivational interviewing and how to incorporate the essential skills needed in order to motivate ambivalent patients towards behavior change.

POINTS OF PROCESS: Reflection on Behavioural Addictions
Bruce Ballon Bsc MD ESP(C) FRCPC
Director of Education for SIM-one (Simulation Ontario Network of Excellence)

This presentation will provide a brief overview of medical issues some in the field term “process addictions”, such as sex, shopping, videogaming, gambling i.e. maladaptive behavioural patterns that result in dysfunction for the individual. The concepts will be looked at from multiple aspects of determinants of health to help demonstrate many of the similarities and some of the nuances of these conditions. Drawing on literature and the work being done at a small clinical initiative at CAMH devoted to tackling these issues, approaches for engagement, assessment and treatment will be discussed.
Treatment Alternatives for Perinatal Opioid Dependence

Alice Ordean MD, CCFP, MHSc
Toronto Centre for Substance Use in Pregnancy, St. Joseph’s Health Centre

Perinatal opioid addiction is becoming more prevalent over the past decade. Consequences of opioid dependence during pregnancy are related to the repeated cycles of opioid intoxication and withdrawal leading to increased risk of miscarriage, premature labour, fetal distress and fetal demise. Opioid agonist treatment has numerous benefits including improved prenatal care and reduced obstetrical and neonatal complications. Methadone maintenance treatment remains the standard of care; however, alternatives include buprenorphine and slow-release morphine. Management from preconception to postpartum will be reviewed.

Challenges in Managing Benzodiazepine (BZ) Dependence

Nady el-Guebaly MD, Ronald Lim MD, Kasia Galperyn PhD
Addiction Centre, Alberta Health Services

The presentations will highlight challenges in the prevention and options for the management of BZs dependence

Why do BZs remain popular? BZs remain the most prescribed anxyolitic medication. Surveys elicit prevailing problematic longer term prescriptions. Reasons for BZ popularity and alternate pharmacotherapies in Anxiety Disorders, Insomnia and Post Traumatic Stress Disorders will be reviewed.

What are the options in withdrawal regimen
Benzodiazepines as a class of drugs are often difficult to taper and recidivism rates are very high. There have been different strategies of tapering. Through the use of several case presentations, tapering strategies will be discussed including addressing the barriers to successful tapering, and the use of substitution pharmacotherapies.

The role of cognitive behavioral therapy (CBT).
CBT is a recommended first line treatment for anxiety. Simultaneous BZ use may hinder CBT progress. General guidelines for intervention will be reviewed including the availability of self help resources.

Leveraging the Physician- Pharmacists Relationship for an Enhanced Practice

Ms. Satinder Sanghera
Pharmacist

The changing demands of health care reward practitioners who collaborate effectively with other health care professionals. The changing relationship between physicians and pharmacists is being molded as health care funding and drug reform changes take hold across the country. This presentation will discuss the operational challenges that act as barriers, and review the opportunities that a changing pharmacy funding model bring to supporting physicians in a novel way. Tools and strategies to service your patient population more efficiently through collaboration will be provided with the aim of guiding physicians and pharmacists to implement positive changes to their practices. Ultimately, it is hoped that efficient and effective collaboration will increase capacity and therefore impact to increase patient access to treatment across Canada.

What if I need help? Addiction in Health Professionals

Dr. Kingsley Watts
Associate Medical Director at the OMA PHP

About 10-12% of physicians develop a Substance Use Disorder (SUD). Only about 10% of physicians with a SUD will call for help on their own behalf. The majority of those detected are either reported by a colleague or come to the attention of the regulatory college through mishap, legal problems, or, more recently, self-reporting requirements for maintaining licensure. There are many barriers to care: among them, a tendency for physicians to see themselves as invincible, a medical culture that is high risk for burnout, a reluctance on the part of colleagues to intervene despite warning signs of impairment. Mandatory reporting requirements regarding signs of impairment have become more stringent recently, making the likelihood of detection higher than in the past. The OMA Physician Health Program (PHP) offers support and information, facilitation of assessment and referral to treatment, monitoring and case management, and advocacy on behalf of the physicians. Numbers of cases brought to the attention of the PHP continues to increase, but it remains an
underused resource for physicians and their families. Because of the concern for public safety, the expectations of the PHP in terms of treatment are rigorous. Management of Substance Dependence in physicians involves the establishment of a multifaceted program of recovery, a graduated return to work, and a monitoring contract for five years. Physicians with SUDs monitored by PHPs have low rates of relapse, and high rates of maintaining full time work after five years.

The ‘Pain’ of Buprenorphine/ Naloxe Therapy
Dr. Joel Bordman
Complex Pain program, First Step Medical Clinic

Since buprenorphine has been available in Canada since 2008 its use has increased. Due to its tight binding to the mu receptor, theoretically this can pose a problem with acute pain in someone being treated with buprenorphine. This lecture will explore the unique issues and possible solutions to acute pain the buprenorphine maintained patient. As well we will look at the treatment of chronic pain in patients who suffer from a dual diagnosis of pain and opioid dependence.

A primary care approach to harmful cannabis use
Dr. Mel Kahan
Medical Director, Addiction Medicine Service, St. Joseph’s Health Centre

Canadians are among the highest per capita smokers of cannabis in the western world. While most people do not experience problems with occasional cannabis use, heavy daily smoking has been linked with addiction, mood disorders, psychosis, suicide, motor vehicle accidents, poor work and school performance, and neurodevelopmental effects in children of women who smoke cannabis during pregnancy. This presentation will review primary care management of problematic cannabis use, including screening and identification, advice and counseling, and pharmacological management. It will also discuss how physicians should respond to patient requests for medical marijuana.

Coming Out of the Shadows: Understanding Sexual Addiction, Part I & II
Dr. Ray Steinman & Ms. Penny Lawson, Bellwood Centre

This presentation will outline the scope and nature of sexual addiction, and present the treatment approaches used by Bellwood Health Services in Toronto. Both the hyperactive and the hypoactive extremes of sexual behaviour will be addressed, including the specific neuropharmacological pathways that make these behaviours potentially so highly addictive. The diagnostic criteria for sexual addiction will be emphasized, as well as client indicators to watch for in clinical practice. Addictive sexual behaviours are often clustered with other addictions such as substance dependencies, and understanding how a cluster of addictions interact is crucial to successful relapse prevention for the patient in treatment and recovery. The dynamics of multiple addictions will be presented and illustrated with case examples.

Using a didactic and interactive approach, Dr. Raymond Steinman and Penny Lawson will present on all aspects of sexual addiction, illustrated with case examples from their treatment experience.

Opioid Substitution Therapy in Correctional Services Canada
Dr. Leo Lanoie
National Consultant, Methadone/Addiction Prairie Regional Consultant, Institutional Physician at Saskatchewan Penitentiary in Prince Albert SK

This panel session will provide an overview of Correctional Service Canada’s (CSC) Opioid Substitution Therapy (OST) program; highlight the unique medical considerations of providing OST in a correctional setting. CSC provides OST to federal offenders using a multidisciplinary approach, incorporating case-management, psychosocial programming and health services, in order to minimize the adverse physical, psychological, social and criminal effects associated with opioid use. Following the principles outlined by provincial Colleges of Physicians and Surgeons and Health Canada’s Standards for OST, CSC’s guidelines ensure that this treatment intervention incorporates best practice methods and is at the forefront of opioid maintenance treatment in a correctional setting (e.g. policies on strict dose administration and monitoring, a detailed medical directive for methadone overdose, specific program modules geared to opioid dependence and ongoing training for staff).

OST in a national correctional setting often presents unique
challenges and opportunities not seen in other settings. OST programs in prisons come under much closer scrutiny than do community programs, and as such, include enhanced security protocols to ensure the safety and security of the facility (e.g. requiring offenders to be searched prior to and after dose administration, waiting 20 minutes following dosing, and not being able to provide carries to reduce the potential for methadone diversion). As a result of these enhanced protocols, working within a correctional setting can be challenging which can make developing a therapeutic relationship more difficult than working in the community. CSC has developed policies for the use of Suboxone in cases of exceptional circumstances when an individual is unable to tolerate Methadone.

Discharge planning of offenders can be difficult. Adding the need for Opiate Substitution Therapy increases the complexity in the discharge process. With the understanding of the importance of continuity of care CSC has worked hard networking with community providers and clinics and has established procedures for discharging to the community and for the transfer of offenders to and from provincial correctional systems.

**Cost and Cost Effectiveness of MMTP**

**Dr. Greg Zaric**  
Associate Professor of Management Science at the Ivey School of Business, University of Western Ontario,  
Associate Professor of Epidemiology and Biostatistics at the Schulich School of Medicine and Dentistry, University of Western Ontario

Policy makers in Canada must make difficult resource allocation decisions in the presence of limited budgets. Methadone maintenance treatment is one of many possible competing uses of public funds. To make good decisions, policy makers need high-quality information on the costs and health consequences of their investment choices. In this talk I provide an overview of the literature on the cost and cost effectiveness of methadone maintenance treatment programs. I will review methadone costing studies from Canada and several other countries; provide a brief introduction to the topic of cost effectiveness analysis and its role in policy and public funding decisions; and then selectively discuss the literature on the cost effectiveness of methadone maintenance.

**Dialectical Behaviour Therapy Adaptations for the Treatment of Substance Use Disorder and Borderline Personality Disorder**

**Dr. Shelly McMain**  
Head of Personality Disorders Treatment, Research and Capacity Building and of the Borderline Personality Disorder Clinic at the Centre for Addiction and Mental Health in Toronto

Dialectical Behaviour Therapy (DBT) is an innovative treatment that was originally developed by Marsha Linehan for the treatment of suicidal patients with Borderline Personality Disorder (BPD). This presentation addresses how DBT has been adapted for the treatment of patients with co-occurring substance use disorders and Borderline Personality disorder. Accumulating research evidence supporting the effectiveness of Dialectical Behaviour Therapy (DBT) for the treatment of BPD and concurrent substance use disorders. DBT blends traditional Cognitive Behaviour Therapy with techniques from acceptance-based traditions. In this presentation, participants will learn about DBT’s assumptions about patients and how they can help to promote compassion and decrease burn-out in clinicians. Participants will learn about strategies that can be used to increase patient’s commitment and motivation to address substance problems. As well, we will consider how and when to prioritize the treatment of concurrent symptoms such as post traumatic stress. Finally, participants will learn strategies that can be used to avert and resolve crises.

**Adolescent Addiction**

**Dr. Sharon Cirone**  
Addictions consultant to the Child and Adolescent Mental Health team at St. Joseph’s Health Centre in Toronto

“Doctor, I think my son is on drugs, can you help him?”  
Have you had concerned parents and families approach you for assistance and intervention with their teens who may be using illicit substances? Where do you start? How do you get the adolescent to come to see you? How can you support the parents during this stressful time?  
This presentation will offer information on the most recent epidemiologic profile of youth substance use and a practical approach to engage adolescents in your practice in a discussion
ADHD and ADDICTION

Dr. Tim Bilkey, Hon.B.Sc., M.D., F.R.C.P.(C)
Ontario Bilkey ADHD Clinic

Many people with Attention Deficit Hyperactivity Disorder (ADHD) struggle with addiction. There is a bidirectional overlap between ADHD and addictions. Cigarette smoking is a gateway drug to the later development of other addictions in untreated ADHD. Nicotine and cocaine both raise dopamine in the central nervous system as stimulants. In cocaine dependent adults there is a rate of ADHD between 10% and 35%. In alcohol dependent people there is a rate of ADHD between 33% and 71%. Up to 71% of ADHD adults smoke cigarettes and maternal smoking has been linked to the development of ADHD. Untreated ADHD and addictions lead to impairments such as increased DUIS and antisocial outcomes. This workshop explores the relationship between ADHD and addictions and the approaches to multimodal treatments. Recent research indicates that ADHD and addictions should be treated as separate conditions and monitored closely. Achieving abstinence in terms of the addiction is a first step towards recovery, followed by multimodal treatment approaches for ADHD.

Substance Use Disorders: Neurosciences, Research & Treatment Implications

Dr. Frank Vaccarino
Principal at University of Toronto Scarborough

This presentation will cover a variety of topics relating to our current knowledge of the neuroscience of Substance Use Disorders (SUD). The role of biology and brain in understanding substance use and abuse has been a major area of study over the past 30 years. However, it is only recently that a sufficient amount of knowledge has accumulated to permit a comprehensive view of the neuroscience of SUD. This presentation will provide an overview of current knowledge relating to our understanding of the neural basis of SUD. Issues relating to the question of a common neural pathway for different drug rewards and the role of dopamine are featured in the presentation. As well, more recent developments in our understanding of the neurobiology of SUD in humans are highlighted, including findings pertaining to sensitization, conditioning, and developmental considerations. Finally, new emerging areas of research that have the potential to impact on treatment and prevention strategies will also be discussed.

When Hoof Beats mean Horses AND Zebras: Treating Concurrent Disorders in 2012

Dr. William Jacyk
Chief Medical Consultant to Greene Stone Muskoka

There is ever increasing awareness that Substance Use Disorders and Addictions do not exist in isolation and that frequently a concurrent mental health disorder may emerge. Conventional wisdom once said, “treat the addiction first and address the other later” which was often valid for those who were primarily chemically dependent or addicted and developed symptoms secondarily as their addiction progressed. However, there were and are those more complex circumstances where developmental and adult traumatic stress, depression and anxiety antedated the appearance of the substance use and abuse and these symptoms may emerge and complicate their progress in early recovery. This presentation will discuss the treatment approach when symptoms of a concurrent disorder emerge in a residential treatment program where staff are prepared to address the classical symptoms of the addiction plus attempt to support and stabilize individuals who are experiencing the emergence of symptoms which are related to concurrent disorders that can create confusion and impede the progress of recovery. The collective challenge in this setting is developing the wisdom to know the difference and relieving the constellation of symptoms that demand individual attention. The core components of this approach will be described and how these are integrated with a traditional Twelve-Step facilitation will be discussed.

Canada’s National Low Risk Drinking Guidelines: The Scientific Basis, the Numbers and the Challenges for Uptake

Peter R. Butt MD CCFP (EM) FCFP, Associate Professor, Department of Family Medicine, University of Saskatchewan and Chair, CCSA Expert Advisory Panel, National Low Risk Drinking Guidelines

The National Alcohol Strategy (CCSA, 2007) called for the development and promotion of national drinking guidelines to encourage a culture of moderation, and aim for consistency and clarity of alcohol-related health and safety messages.
Canada’s first national Low Risk Drinking Guidelines address 1) situations in which to avoid alcohol, 2) long term health risks, 3) short term health risks of injury or harm, 3) pregnancy and 4) youth. The presentation explores the scientific basis for the guidelines, reviews the guidelines themselves, and opens discussion on the challenges of knowledge translation. The creation of “a culture of moderation” will reduce alcohol related harms and provide greater opportunity for earlier interventions.

Distress Tolerance Skills in 15 Minutes
Dr. Mark Weiss  BSc, MD
Bellwood Health Services

Teaching clients with mental health disorders to regulate their emotions can greatly benefit the therapeutic alliance. The challenge is how to teach simple distress tolerance skills within a 15 minute time frame that might allow clients “to ride the wave of difficult emotions” without engaging in harmful behaviours. Dialectical Behavioral Therapy developed by Marsha Linehan is an evidenced-based treatment for clients with borderline personality disorder, which has developed a series of skills to help clients learn to cope with distress. These skills can be enormously beneficial to clients with a history of addiction, trauma or mood disorders. This workshop will present an approach to teaching simple and basic distress tolerance skills that can be taught in your office within a five to fifteen minute time frame. These skills will include learning to use simple breathing techniques, distractions, self-soothing, as well as other techniques that can be added to a client’s repertoire on an incremental basis on each visit.

This workshop would be useful for physicians or other health care professionals seeing patients in a variety of settings including a primary care or psychotherapeutic setting.

The Emergence of Bath Salts as a Drug of Abuse
Jag Khalsa, Ph.D, MS, Chief, Medical Consequences, National Institute on Drug Abuse, NIH, Bethesda, MD, USA

Substance abuse remains a major problem in the world with an estimated 200 million people 12 years or old who use an illicit drug, with >19 million current substance abusers in the US alone. Use/abuse of legal (alcohol, tobacco) and illegal drugs (amphetamine, cocaine, opiates, marijuana etc.) costs the American society an estimated $1 trillion annually. Substance abuse is associated with serious adverse medical/health consequences affecting almost every physiological system. As if we did not have enough problems with the current ‘5 drugs’ illicit drugs [amphetamine/methamphetamine, cocaine, opiates, and marijuana], now we have an emerging problem with new designer synthetic marijuana alternatives like K2 or Spice) and synthetic cathinones, commonly called ‘BATH SALTS’, containing the active chemical constituent, mephedrone, that has CNS stimulant properties similar to amphetamines. This presentation will discuss/review epidemiology (incidence, prevalence), pharmacology, and associated clinical as well as other consequences of ‘Bath Salts’ and KHAT, a plant whose leaves and twigs as chewed for their reported amphetamine-like euphoric effects, and research efforts that are being made at NIDA/NIH.


Primary Care Approaches to Addictions
Dr. Ashok Krishnamurthy

This talk will explore the important role of primary care providers in screening for, briefly intervening and motivating their patients to address their addictions. The rationale for these interventions, simple screening tools will be discussed. Select cases will be used to illustrate by example the issues at hand.

Benzodiazepines
Dr. Ramm Hering

After opioids, benzodiazepines are one of the most abused and problematic prescription or illicit drugs. This talk will introduce benzodiazepines by briefly reviewing pharmacology, indications, harms (including tolerance and withdrawal), of benzos. More time will be spent on issues
related to abuse and dependence of benzos, and especially management of tapering benzodiazepines. The Ashton Manual (benzo.org.uk/manual) will be reviewed. A short case will be used to highlight some of the key principles.

**Opioid Use, Misuse, Dependency and Treatment in your Practice**  
**Dr. Mel Kahan**  
Medical Director, Addiction Medicine Service, St. Joseph’s Health Centre

Rates of prescription opioid misuse and addiction have risen dramatically in the past fifteen years. Family physicians have a central role in controlling this epidemic. This presentation outlines an evidence-based primary care approach to prevention, identification and management of opioid addiction. **Prevention:** 1) Do not prescribe potent opioids unless clearly indicated. They are not indicated for low back pain, fibromyalgia and other common pain conditions. 2) In patients at high risk for opioid misuse, avoid opioids that can easily be tampered with, eg hydromorphone or fentanyl. 3) Titrate the dose slowly and cautiously. Most patients respond to doses below 120 mg morphine equivalent per day. 4) Taper the dose if the patient has insufficient analgesia or opioid-related complications. **Identification:** 1) Ask about current, past and family history of substance use. 2) Monitor drug use with urine drug screens. 3) Watch for aberrant behaviours. **Management:** 1) Advise the patient that continued opioid prescribing will be harmful, while treatment will improve their pain, mood and functioning. 2) If the addicted patient doesn’t access opioids from other sources. 3) If structured therapy fails or is not indicated, refer opioid-addicted patients for methadone or suboxone treatment.

**Approach to Street Drug Use**  
**Dr. Sharon Cirone**  
Addictions consultant to the Child and Adolescent Mental Health team at St. Joseph’s Health Centre in Toronto

This presentation will involve a review of the recent trends in youth alcohol and substance use across the country. Also, brief and effective tools for engaging youth and providing screening, treatment interventions and referral will be discussed.

**Cannabis**  
**Drs. Suzanne Turner and Dr. Yelena Chorny**  
Centre for Addiction and Mental Health

This talk will use a case-based approach to review the current evidence supporting recognition, management and relapse prevention of cannabis-use disorders. Primary cannabis-dependency as well as the role of marijuana in polysubstance use disorders will be reviewed. The role of pharmacotherapy and psychotherapy will be explored in this practical discussion. Participants are encouraged to bring their own cases for review during the question and answer period.

**Smoking Cessation**  
**Dr. Pamela Kaduri**  
Department of Psychiatry, University of Toronto

This talk will cover diagnosis and management of nicotine/tobacco dependence and therapeutic options for smoking cessation in patients with comorbid addiction problems. Topics reviewed will include various nicotine replacement therapies (NRT), bupropion, varenicline and nonpharmacologic therapies. It is geared towards the busy primary care clinician who has a limited amount of time to spend with each patient.

**Alcohol**  
**Dr. Paul Sobey**  
Addiction Medicine Consultant at Royal Columbian and Surrey Memorial Hospitals

This 60 minute session will discuss various facets of Alcohol Use Disorders including screening, assessment and diagnosis, out patient management of alcohol withdrawal and will review medications indicated for alcohol dependence. The talk is adapted from British Columbia’s Guideline and Protocol for Office Based Management of Problem Drinking and the NIAAA guideline for helping people who drink too much.
## 2012 Membership Form

### Membership Type

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<tr>
<th>Membership Type</th>
<th>Regular Member – MD</th>
<th>Regular Member – PhD Scientists</th>
<th>Medical Student/Intern/Resident</th>
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<td>Retirees – MD or PhD</td>
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<td>Associate Member</td>
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### Contact Information

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<th>Dr.</th>
<th>Ms.</th>
<th>Mrs.</th>
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<td>Home Phone:</td>
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### Email Contact*  
*(please provide password you would like)*

Are you interested in Canadian Certification in Addiction Medicine? (Member – MD only) Yes No

### Positions in the Society You Would Be Willing To Consider in the Future

<table>
<thead>
<tr>
<th>Board Member <em>(Please note: Associate members are not eligible for board positions)</em></th>
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<td>Committee Membership:</td>
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<td>Standards</td>
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<td>Education</td>
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I will allow my name & contact information to be in a password-protected Member’s Section directory on the CSAM webpages? Yes No

### Signature:

### Annual Fees

- Regular Member – M.D.: $200.00
- Regular Member – PhD: $200.00
- Associate Member: $50.00
- Student/Intern/Resident: $5.00
- Retirees MD or PhD: $25.00
- Optional: International Society of Addiction Medicine (ISAM) Dues – (US $100.00 effective January 2011) $100.00

Please process payment for:  
- One year: $200.00  
- 3 years: $549.00  
- 5 years: $900.00

*TOTAL PAYMENT: $*

Cheque, Bank Draft or Money Order Payable to: The Canadian Society of Addiction Medicine or

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<th>VISA/Master Card (circle one)</th>
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21
# 2012 Application Form for Certification by CSAM/SMCA

## Applicant Information

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**Primary Email:**

## Education History

**Undergraduate Degree(s)/University/Year Graduated:**

**Graduate Degree(s)/University/Year Graduated:**

**Area of Specialty:**

## Current Employment:

**Area of Employment:**

- [ ] Private Practice
- [ ] Treatment Centre
- [ ] Educational Facility
- [ ] Other (please specify):

**Appointment(s) – Hospital/University/College Including Department:**

## Addiction Medicine Affiliations

**American Society of Addiction Medicine (ASAM):**

- [ ] Member
- [ ] Certificant Year of Certification/recertification:
- [ ] Fellow Year of Fellowship:

**International Society of Addiction Medicine (ISAM):**

- [ ] Member
- [ ] Certificant Year of Certification/recertification:

## Current License to Practice

**Province/Registration Number**

**Are there any current restrictions on your license?**

- [ ] Yes
- [ ] No

*Please attach an explanation on a separate sheet. This information will be treated in strict confidence and not used for any reporting or punitive purposes.

**PLEASE NOTE:** applications will be accepted only till August 1, 2012.
Please check appropriate part and attach appropriate documents

- ☐ CSAM member for 2 years

**Pathway “A”:**
- ☐ Letter of good standing certifying membership with the Professional Corporation of Physicians of Quebec OR the Royal College of Physicians and Surgeons of Canada OR the College of Family Physicians of Canada
- ☐ Letter of reference from a physician in your community who can testify to your successful completion of one year full time involvement, or 50% over two years in the field of Addiction

**Pathway “B”:**
- ☐ Letter of reference from a physician in your community who can testify to your successful completion of one year full time involvement, or 50% over two years in the field of Addiction
- ☐ Attendance at the Canadian Society of Addiction Medicine Annual meeting, or its equivalent, for the two years prior to certification and show evidence of annual completion of a minimum of 25 hours of Continuing Medical Education credits in Addiction Medicine for each of the preceding two years prior to application for certification.

**Affidavit**

By signing below, I agree to the following three paragraphs:

I successfully sat the American Society of Addiction Medicine (ASAM) or the International Society of Addiction Medicine (ISAM) exam: Date: ________________________

I hereby certify that all the above information is correct and complete. I understand that CSAM officers or their designate may verify the accuracy of information in this application from appropriate organizations. I understand that incomplete applications will not be processed for review by the CSAM Standards Committee.

I hereby release, discharge and exonerate the CSAM Board, its Directors, Officers, Members, Examiners, Representatives and Agents from any actions, suits, obligations, damages, claims or demands arising out of, or in connection with this application or the failure of the CSAM Board to issue me a Certificate. It is understood that the decision to issue a Certificate testifying Certificant of the Canadian Society of Addiction Medicine (CCSAM) rests solely and exclusively in the Board and its decision will be final.

Applicant’s Signature: ___________________________ Date: ___________________________

**Payment Information**

Certification Application Processing Fee: $100.00 CDN

Fees may be paid by Cheque, Bank Draft or Money Order Payable to The Canadian Society of Addiction Medicine or VISA/Master Card (circle one) # _______________ Expiry Date: _______________

Name on Card: ___________________________ Signature: ___________________________
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