Intake assessment of problematic use of medications in a chronic noncancer pain clinic

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BACKGROUND: The present article outlines the process of instituting an assessment of risk of problematic use of medications with new patients in an ambulatory chronic noncancer pain (CNCP) clinic. It is hoped that the authors’ experience through this iterative process will fill the gap in the literature by setting an example of an application of the ‘universal precautions’ approach to chronic pain management.

OBJECTIVES: To assess the feasibility and utility of the addition of a new risk assessment process and to provide a snapshot of the risk of problematic use of medications in new patients presenting to a tertiary ambulatory clinic treating CNCP.

METHODS: Charts for the first three months following the institution of an intake assessment for risk of problematic medication use were reviewed. Health care providers at the Wasser Pain Management Centre (Toronto, Ontario) were interviewed to discuss the preliminary findings and provide feedback about barriers to completing the intake assessments, as well as to identify the items that were clinically relevant and useful to their practice.

RESULTS: Data were analyzed and examined for completeness. While some measures were considered to be particularly helpful, other items were regarded as repetitive, problematic or time consuming. Feedback was then incorporated into revisions of the risk assessment tool.

DISCUSSION: Overall, it is feasible and useful to assess risk for problematic use of medications in new patients presenting to CNCP clinics.

CONCLUSION: To facilitate the practice of assessment, the risk assessment tool at intake must be concise, clinically relevant and feasible given practitioner time constraints.

Key Words: Chronic pain; Chronic pain clinic; Problematic use; Risk assessment; Universal precautions

Assessing the risk of problematic use of medications is important in chronic pain management because treatment so often includes complex pharmacotherapy. The Wasser Pain Management Centre (WPMC) at Mount Sinai Hospital (Toronto, Ontario) is an ambulatory clinic situated in an urban teaching hospital, specializing in chronic noncancer pain (CNCP). The clinic sees approximately 7,000 patients per year and incorporates the expertise of a variety of health disciplines including neurology, anaesthesiology, gynaecology, dentistry, psychiatry, nursing, sex therapy and cognitive behavioural therapy, as well as other closely linked external services to which we frequently refer (eg, physiotherapy, acupuncture and chiropractics).

Until recently, each practitioner at the WPMC assessed the risk of problematic medication use in their own way. One of the physicians at the WPMC, along with other colleagues, has performed a great deal of work in the area of pain and addiction, and has written extensively on risk assessment. One of the main features of his work has been termed ‘universal precautions’, after the infectious disease approach. Because there is no definitive method of identifying chronic pain patients who will develop a problematic use of medications, Gourlay et al (1) proposed the concept of universal precautions, which offers health care providers (HCPs) a uniform approach to assessment. Universal precautions in chronic pain is the application of precautions to all patients being considered for, or treated with, opioid medications (1). While opioid medications can lead to difficulties for some patients, in our experience, problematic use is not limited to this class of medications. The clinical team at WPMC decided to attempt to implement a uniform Problematic Use Intake Assessment (PIUA) to be used with all new patients.

To begin the process, a literature search was conducted to determine whether other CNCP clinics were establishing similar initiatives in the
area of chronic pain and the assessment of risk of problematic medication use. The search was conducted using the following databases: Ovid MEDLINE, limited to 1996 to 2008, with subject headings: “pain clinics” and “substance-related disorders”; Ovid CINAHL, limited to 1982 to 2008, with the subjects headings: “pain clinics” and “substance abuse”; PubMed, using keywords: “substance abuse in pain clinics”, “problematic use in chronic pain” and “problematic use of opioids in chronic pain”, as well as MeSH subject headings: “pain clinics”, “substance related disorders”, “substance abuse detection” or “substance abuse treatment centres”.

Articles were narrowed to five relevant studies that examined problematic substance use specifically in CNCP clinics (2-6). While some studies concluded that prescribing opioids for chronic pain management resulted in few problems (2,3), others investigated specific ways to assess addiction (4-6). While there is much discussion of prescription practices and risk assessment with opioids, there is little in the literature that examines the process of instituting this type of approach.

**Aim**

The aim of the present study was to report on the process of a change in practice, working toward adopting a uniform assessment of problematic use of medications in the chronic pain population. The present article discusses the feasibility and utility of this change in practice while, at the same time, providing a snapshot of the risk factors in new patients referred to an ambulatory CNCP clinic in a tertiary teaching hospital. Our experience in instituting a PUIA fills a gap in the literature and sets an example of an application of the universal precautions approach to the assessment of problematic substance use.

**METHODS**

The PUIA was developed through an iterative process in a series of meetings with the WPMC clinical team. Initial meetings of the group, which incorporated an interprofessional group of HCPs at the clinic, identified several measures to include in the assessment. These discussions produced a two-page assessment of new patients to be administered by an HCP that combined several established measures (6). The first draft of the risk assessment included several tools: the CAGE-AID (Have you ever felt you should cut down on your drinking?; Have you ever felt bad or annoyed you by criticising your drinking?; Have you ever felt guilty about your drinking?; Have you ever had a drink first thing in the morning to steady your nerves or get rid of a hangover (eye-opener)?) and the Potential Aberrant Drug-Related Behaviour, as well as items that the pain and chemical dependency specialist at the WPMC uses to assess patients identified as high risk for problematic use.

The first draft of the risk assessment included several tools: the CAGE-AID, a tool that measures the use of both drugs and alcohol together (7); the ORT, designed to predict risk of aberrant behaviours in patients treated with opioids (specifically examining family and personal history of substance abuse, age, history of preadolescent sexual abuse, and psychological disease) (8); the Potential Aberrant Drug-Related Behaviour, a segment of a tool used to identify behaviours that point to the problematic use of medications (9); a section used to identify physical, emotional and sexual abuse history, posed several additional challenges to the HCP and, in at least a few cases, contributed to nonresponse. Despite the issues raised, HCPs were in agreement that this was an important component of assessing risk.

The PUIA was introduced to all clinic HCPs at a meeting and then again by e-mail. The PUIA is administered one time at the initial intake visit with a new patient by a HCP, including nurses, physicians, residents and fellows, in an interview style format, which takes approximately 5 min to complete. This was added to the standard initial assessment of new patients along with health history, physical assessment, diagnosis and treatment plan.

**RESULTS**

A total of 52 charts were reviewed. Data were entered and analyzed in SPSS using descriptive statistics. An analysis of missing variables was also conducted. Based on the preliminary results and feedback from HCPs, it was clear that while some items in the PUIA were considered to be useful, other items were viewed to lack utility and were deemed repetitive or time consuming.

The CAGE-AID was well-analyzed across the board (response rate 98.1%). HCP feedback indicated that the tool was familiar and generally found to be time efficient and easy to interpret. Sixty per cent of patients scored 0 on the four-point scale (0 being the lowest risk and 4 being the highest) and only 3.8% of patients scored 4/4 (Table 1).

The ORT was also answered well overall (with only 7.7% missing responses). Some of the feedback from HCPs was that, while the ORT was not commonly used in the clinic before the present initiative, similar to the CAGE-AID, it was easy to implement and interpret, and provided useful information. Scoring the ORT was also reported to be straightforward.

One of the barriers encountered in administering the ORT was the question regarding the history of preadolescent sexual abuse. Feedback indicated that the question had the potential to lead to unpleasant reactions in some patients, which can be an added challenge to manage when there is already a limited period of time to assess, diagnose and treat a patient with chronic pain. While the relevance of the topic was never questioned by HCPs, this item, along with a later section that asks about physical, emotional and sexual abuse history, posed additional challenges to the HCP and, in at least a few cases, contributed to nonresponse. Despite the issues raised, HCPs were in agreement that this was an important component of assessing risk.

In the analysis of the ORT, individuals who did and did not report a family history of alcohol abuse were evenly divided (46.2% each). Family history of illegal and prescription drug abuse was much less frequent (11.5%), while personal history of substance use ranged from 11.5% for prescription drugs to 23.1% for alcohol (Table 2).

### TABLE 1 CAGE-AID score

| Score (out of 4) | n (%) |
|------------------|-------|
| 0                | 31 (59.6) |
| 1                | 7 (13.5) |
| 2                | 6 (11.5) |
| 3                | 5 (9.6)  |
| 4                | 2 (3.8)  |
| Missing          | 1 (1.9)  |
| Total            | 52 (100.0) |

CAGE-AID: Have you ever felt you should cut down on your drinking?; Have people annoyed you by criticising your drinking?; Have you ever felt bad or guilty about your drinking?; Have you ever had a drink first thing in the morning to steady your nerves or get rid of a hangover (Eye-opener)?; Adapted to Include Drugs
Overall, 59.6% reported having never used recreational or street drugs. Only 7.7% admitted to current use, while 26.9% said they had used in the past. None of the patients assessed reported any experience with the use of amphetamines or heroin. While most patients had never used cocaine or crack (78.8%), 15.4% had in the past, and none were currently using.

The most commonly used substances were in the category of marijuana, cannabis and hashish. While 59.6% of patients reported to have never smoked marijuana or hashish, 30.8% reported past use and 5.8% indicated current use.

For all of the above drug categories, there was space provided for HCPs to enter when the patients had last used the drug and the route of drug use, but these sections were so poorly answered that there is very little to report, ranging anywhere from 40% to 100% missing. HCPs were asked about this and they cited time factors and patient reluctance to answer these questions. Some skipped the route of drug use when it was considered to be particularly obvious; for example, cocaine taken nasally and crack being smoked. The problem with this is that there are a variety of routes of administration that may not be considered obvious to all; for example, cocaine can also be injected. Because time is such a limiting factor in new patient assessments, decisions to leave out items deemed less relevant or obvious were often made, which posed a challenge to this process.

Most patients had never received treatment for substance abuse, although 13.5% said that they had, while 7.7% of the time, this question was left unanswered. Of those who reported receiving substance abuse treatment, 71.4% received residential treatment, 28.6% were with Alcoholics Anonymous and 42.9% were with Narcotics Anonymous.

There were several challenges in terms of response rates with the group of questions derived from the Pain and Chemical Dependency Worksheet. Missing variables in this section ranged from 23.1% to 98.1%. Some HCPs were not clear on the significance of some of the questions being asked or, more specifically, how responses should be interpreted or translated into a meaningful objective measure of risk.

While the HCP who created the worksheet developed the questions from evidence and experience, there was no systematic method for the rest of the team to score the items. So while they likely have a significant utility in this setting, the team needs to gain a better understanding of the evidence behind the worksheet questions. It was suggested that an educational in-service be held for HCPs in the clinic so there could be a common understanding of its use and interpretation.

Another factor that likely played a role in the poor response rates in this section is related to relevance. Questions were considered to be more relevant and answered more thoroughly when patients were exhibiting or identified as having ‘red flags’, as one HCP stated. This means patients who are at high risk of problematic use of medications. The physician who developed the original worksheet from which the PUA was adapted has a practice seeing patients who have been identified as being at high risk and referred for that reason. If a patient scored high on the CAGE-AID and/or ORT, HCPs were more likely to complete the PUA more thoroughly.

Finally, HCPs found that patients were unable to recall some of the specifics such as age of ‘first drink’ and age of ‘first drunk’; therefore, the reliability of patient recall was questioned.

### Table 2: Personal history of substance abuse

| Alcohol abuse | Illegal drug abuse | Prescription drug abuse |
|---------------|-------------------|------------------------|
| **No**        | **Yes**           | **Miss**               |
| 36 (69.2)     | 42 (80.8)         |                         |
| 38 (73.1)     | 10 (19.2)         |                         |
| 6 (11.5)      | 4 (7.7)           |                         |
| **Total**     | **Total**         | **Total**              |
| 52 (100.0)    | 52 (100.0)        | 52 (100.0)             |

Data presented as n (%)
When it came to addressing past suicidality, 90% to 98.1% of the time, these questions were not answered. Given the high rate of depression identified in the ORT, this was a surprising figure. When asked about this, HCPs indicated that they always ask about suicide if they have any indication it might be a problem. HCPs also stated that the formatting of that section was particularly problematic because there was too much in a small section. It was suggested that this section be revised and reformatted to facilitate a better response rate.

There was sexual, physical and emotional trauma reported by 19.2%, 28.8% and 19.2% of subjects, respectively, although almost 54% of these questions were not answered. In the ORT, 14.7% reported a history of sexual abuse and only 7.7% of the questionnaires did not provide this information. It is possible that time was taken to answer this section of the intake assessment more diligently when there were red flags present, which may explain the sexual trauma number discrepancy. There was also a concern with the sensitivity of the question in the context of time limitation. It is possible that asking about past abuse without the time to address patient reactions to the questions may have had an influence on the response rates.

Patients reported taking a number of medications, which were grouped into categories for the purpose of data analysis. The most common of the groups were the opioid analgesics (27.9%) (Figure 2). As previously mentioned, time was a major barrier to completing the intake assessment. The medication list was viewed to be repetitive because the information was listed in the chart and in the HCP consultation note. In later versions of the PUJA this section was removed.

One of the major complaints about the section on signs of abuse/dependency centred not on the relevance of the items, because it is clear they are crucial to assessing risk of problematic use, but on the lack of time. Based on feedback, this section was later omitted, both in the interest of time and because the assessment was for screening based on history rather than physical assessment.

Drug screening urine samples were reportedly submitted in 19.2% of patients, but many practitioners skipped this question. Similar to the Chemical Dependency Worksheet, HCPs were more apt to send a sample when there were red flags, such as high scores on the ORT and CAGE-AID. Some HCPs see patients on a more ongoing basis than others. For example, HCPs who see patients mostly to assess their suitability for anesthetic blocks are less inclined to send a urine drug screening specimen than the physician who is likely to be involved in the interest of time and because the assessment was for screening based on history rather than physical assessment.

FIGURE 2) Medication use at intake. ASA Acetylsalicylic acid; NSAIDs Nonsteroidal anti-inflammatory drugs; THC Tetrahydrocannabinol

Finally, it was speculated that patients involved in medicolegal issues may be particularly reluctant to respond accurately about medication and drug use for fear of potential legal ramifications. A question was subsequently added to the PUJA to identify patients involved in that type of consultation so it could be incorporated into the overall assessment of risk.

CONCLUSIONS

There is little information in the literature regarding the experience of chronic pain management clinics instituting an approach to assessing risk of problematic use. The trend to move beyond the collective fear of prescribing opioids has resulted in a degree of complacency and a lack of safeguards in place to identify and manage high-risk patients. A universal approach to risk assessment will raise the standard of care in treating patients suffering from chronic pain.

The present chart review provides a snapshot of the risk of problematic use in new patients presenting to a CNCP centre and fills gaps in the literature by providing an example to other pain clinics of the application of ‘universal precautions’; an approach to the assessment of problematic use in chronic pain.

A number of important factors need to be examined uniformly in new patients presenting to CNCP clinics to assess risk for problematic use of medications. However, to facilitate the practice, the intake assessment must be concise, clinically relevant and feasible given practitioner time constraints. HCP feedback based on the analysis of the chart review gave us some valuable information about what worked and what needed to be adapted, giving us some clear guidance for subsequent revisions.

As we learn more about the risk of problematic medication use, and based on the experience we are sure to accumulate applying universal precautions in our everyday practise, our approach to assessment needs to be re-evaluated and possibly revised. Future research is needed in this developing area of CNCP management.

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APPENDIX A: REVISED PUA

1. AA Alcoholics Anonymous: CAGE-AID Have you ever felt you should Cut down on your drinking? Have people Annoyed you by criticising your drinking? Have you ever felt bad or Guilty about your drinking? Have you ever had a drink first thing in the morning to steady your nerves or get rid of a hangover (Eye-opener)? Adapted to Include Drugs; Dx Diagnosis; Hx History; LSD Lysergic acid diethylamide; NA Narcotics Anonymous; PCP l-(l-phenylcyclohexyl)-piperidine); PPD Packs per day; WSIB Workplace Safety and Insurance Board

REFERENCES

1. Gourlay DL, Heit HA, Almahrezi A. Universal precautions in pain medicine: A rational approach to the treatment of chronic pain. Pain Med 2005;6:107-12.
2. Cowan DT, Allen LG, Griffiths P. A pilot study into problematic use of opioid analgesics in chronic non-cancer pain patients. Int J Nurs Studies 2002;39:59-69.
3. Cowan DT, Wilson-Barnett J, Griffiths P, Allen LG. A survey of non-cancer pain patients prescribed opioid analgesics. Pain Med 2003;4:340-51.
4. Compton P, Dankjian J, Miotto K. Screening for addiction in patients with chronic pain and “problematic” use: Evolution of a pilot assessment tool. J Pain Symptom Manage 1998;16:355-63.
5. Koyanou K, Pither CE, Wesley S. Medication misuse, abuse and dependence in chronic pain patients. J Psychosom Res 1997;43:497-504.
6. Manchikanti L, Manchukonda R, Pampati V, et al. Does random urine drug testing reduce illicit drug use in chronic pain patients receiving opioids? Pain Physician 2006;9:123-9.
7. Brown R L, Rounds LA. Conjoint screening questionnaires for alcohol and other drug abuse: Criterion validity in a primary care practice. Wis Med J 1995;94:135-40.
8. Webster LR, Webster RM. Predicting aberrant behaviors in opioid-treated patients: Preliminary validation of the Opioid Risk Tool. Pain Med 2005;6:432-42.
9. Passik SD, Kirsh KL, Whitcomb L, et al. A new tool to assess and document pain outcomes in chronic pain patients receiving opioid therapy. Pain Physician 2006;9:123-9.
10. Bair MJ, Robinson RL, Katon W, Kroenke K. Depression and pain comorbidity: A literature review. Arch Int Med 2003;163:2343-45.
11. Gourlay D, Heit H. Universal precautions: Managing the inherited pain patient. Pain Med 2009;10(Suppl 2):S115-S23.
12. Passik SD. Pain and addiction interface. Pain Med 2008;9:631-3.
