Topic Summary: Prescription Opioid Misuse and Interventions in Northern Ontario and First Nations Communities

Background

Canada has the highest prescription opioid (PO) consumption in the world[1]. POs are most often used to treat pain (e.g., morphine, oxycodone, and fentanyl) or to treat opioid dependence (e.g., methadone)[2]. The relaxed 'high' associated with POs and the potential for physical dependence make them prone to misuse (i.e., used for purposes other than medical or used not as prescribed). Northern Ontario (NO) and First Nations (FN) communities in Ontario – often overlapping – have disproportionately higher rates of PO misuse compared to their non-FN and non-Northern counterparts[3]. Exact numbers are challenging to obtain, in part due to the fact that FN and remote communities are often excluded from health data information systems or national health surveys.

Prescription Opioid Use

Northern Ontario: 26.4% of people in NO reported use of POs, which was significantly higher than the Ontario average of 22.2%, according to a 2013 population survey of Ontario adults[4]. The annual opioid prescribing rate per 1,000 public drug plan recipients aged 15-64 ranged between 12,671-27,484 prescriptions for the North East (NE) Local Health Integrated Network (LHIN) and 12,240-42,201 for the North West (NW) LHIN. These rates were above the Ontario average of 11,610[5].
First Nations: Ontario FN were prescribed more PO than the Ontario population in 2007 according to the Non-Insured Health Benefits program. For every 1,000 Ontario FN, 898 POs were prescribed, in comparison to 756 POs for every 1,000 Ontarians[1,6].

Prescription Opioid Misuse

Northern Ontario: Self-reported PO misuse among adults was about 2.9% in the NE LHIN and 5.9% in the NW LHIN, compared to the provincial average of 4.1% in 2012-2013[4]. Self-reported PO misuse among students has declined in all regions of the province, including NO (from 27.0% in 2007 to 9.8% in 2015), according to the Ontario Student Drug Use and Health Survey[7]. At least 430 people died from opioid use in NO in 2010-2015[8].
First Nations: Aboriginal communities in Canada are disproportionately affected by opioid dependence[9]. The Nishnawbe Aski Nation (NAN) in NO has a population of about 45,000 Aboriginal Peoples (49 communities). Despite declaring "a state of emergency" due to widespread PO misuse in 2010, elevated rates of PO misuse continue[10]. Anecdotally, 50%-75% of the adult populations in all NAN communities, and up to half of high school students, misuse POs according to the 2011 NAN annual report[10].

Treatment and Interventions

The rate at which children and youth were treated for opioid use per 10,000 population in the NW and NE LHINs was higher than other LHINs between 2009-2012[11]. In Canada, the gold standard for treatment of PO dependence is methadone maintenance therapy (MMT). Despite high retention in MMT in NO, this therapy is often not available in remote FN and Northern communities due to a lack of trained physicians[10,12,13]. Suboxone – a combination of buprenorphine and naloxone – can offer an alternative in these communities as the prescribing physicians do not require a methadone exemption and multiple doses can be dispensed at once (unlike methadone which requires daily dispensation and witnessed ingestion)[10,12]. A number of successful Suboxone-based and other interventions have been implemented to reduce the use of POs in NO and FN communities. Some examples include:

- The Medical Withdrawal Support Service at the Sioux Lookout Meno Ya Win Health Centre provides a multidisciplinary inpatient detoxification program for opioid dependence with the use of Suboxone. 78 out of 97 clients successfully completed the program for opioid dependence. At a 6-month follow-up, 30% remained abstinent[14].
- 140 patients enrolled in an outpatient healing and Suboxone substitution program for opioid dependence in a remote FN community in NO. One year after the development, police criminal charges declined by 61.1%, child protection cases had fallen by 58.3% and school attendance had increased by 33.3%[15].
- In a community-based taper-to-low-dose-maintenance Suboxone treatment program, 22 adults in an Aboriginal community in NW Ontario were stabilized on and tapered off Suboxone over 30 days. 95% of participants completed the taper and 88% of those screened had PO-free urine at the end of the taper[16].
- In a Suboxone trial in the Webequie First Nation in NO in 2011-2012, 101 participants did an initial 4-5 day induction, and were closely supervised for a month. Most participants were able to stay off OxyContin for a year after[17].
- A high school in Thunder Bay introduced an opioid detoxification initiative in 2011 that included an opiate withdrawal management program using Suboxone. Of the 33 students enrolled, 63% were opioid free at the end of the taper phase[10].
- Rates of opioid use during pregnancy increased from 8.4% (2009) to 28.6% (2013) in a Sioux Lookout clinic serving primarily FN patients[13,18]. Rates of neonatal abstinence syndrome in exposed pregnancies decreased from 29.5% (2010) to 20.4% (2013) due to narcotic weaning and tapering with long-acting morphine[19].
- Based on a retrospective cohort study of pregnant patients from NW Ontario exposed to Suboxone, maternal and neonatal outcomes were generally similar to those exposed to other opioids and those not exposed to opioids, and patients taking Suboxone were more likely to stop PO use during pregnancy[20,21].
- An educational intervention on safe opioid prescribing developed for physicians servicing remote NO reduced physician concerns about opioid addiction and dosing[22].

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