



Public Health
Santé publique



Needle & Syringe Program
Programme sur les aiguilles et les seringues

Ottawa Public Health

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Fentanyl

- Highly potent prescription opioid analgesic available since the early 1990s. Brand Names -Durogesic/ Duragesic/Matrifen
- Synthetic opioid with a potency about 50-100 times that of morphine. Transdermal patch generally worn for 48-72 hours
- Serious consequences, including death, have occurred when people were accidentally exposed to fentanyl. Examples include, transfer of patch while hugging, sharing bed, or moving a patient.

Fentanyl

- Available in 5 sizes: 12 ug/h (1.2 mg fentanyl), 25 ug/h (2.5 mg fentanyl), 50 ug/h (5.0 mg fentanyl), 75 ug/h, 100 ug/h (10 mg fentanyl)
- Indications: Chronic pain management (cancer) only after **ALL** other methods of pain management have been exhausted
 - Prior to initiation of the use of Fentanyl patches, it is recommended that patients be tolerating 60 mg Morphine, 30 mg Oxycontin or 6 mg Dilaudid daily

Fentanyl

- Action: primarily on the central nervous system (CNS) and the intestines → perception of and emotional response to pain are modified when opioid analgesics bind with receptors in the CNS.
- Canada – one of the world's top consumer countries of the drug on a per capita basis – tripled between 2001 and 2005

Fentanyl



- 2005 – Manufacturers released a new patch formulation. Replaced gel-filled reservoir with a polymer matrix – much smaller and thinner than original patch → designed to increase safety and adherence. However, has this decreased street use and/or has it increased risk practices?

Fentanyl

- Street users state: opioid material can easily be extracted from patch by adding vinegar and water, and either soaking, heating or microwaving the patch → injecting liquid solution



Fentanyl - Risks

- Risk: Different quantity and time-release formulation & preparing techniques used →
 - ? potency and effects of Fentanyl solution
 - ? how much to inject
 - High risk for overdose

Fentanyl - Risks

- Risk behaviours: high cost & desirable drug
 - only accessible and/or affordable to groups of several (4-6) street users
 - liquid solution is captured in a single container (cooker/spoon)
 - users load syringes for injection → SHARE from common paraphernalia
- High-risk conditions for the transmission of infectious disease (HCV, HIV)

Fentanyl

Challenges We Have Seen in Ottawa

- Fentanyl patches have increased in quantity and have become much easier to acquire on the street than a year ago
- Long term opiate users report loving Fentanyl, as it brings them back to their 'first high'
- Previously used patches (for either transdermal or injection drug use) are also sold

Fentanyl

Challenges We are Seeing in Ottawa

- ‘Second wash’ effects (of using patches a second time) are much stronger than anticipated
- Fentanyl patches are being cut into sections for use over a few days. Patches are being sold on the street for approximately \$30 to \$60 per patch
- Clients have mentioned three deaths which they believe are due to overdoses related to Fentanyl injection

Fentanyl

What Outreach Staff Need to Know

- Understanding bioequivalence requirements when switching narcotics (Fentanyl is 50 to 100 times more potent than Morphine).
- Noting that after patch removal, blood concentrations decrease by only 50 per cent over 17 hours

Fentanyl

What Outreach Staff Need to Know

- Discussing with clients that patches are designed to release Fentanyl over 48 to 72 hrs. Patches that are cut, divided, or altered in any way cause unpredictable and uncontrolled release and blood concentrations of the active ingredient

Ottawa I-Track Study 2010

- Among all participants, 38% (78 of 203) reported using fentanyl in the past 6 months
- Among those who have ingested fentanyl in the past 6 months (through injection or non-injection):
 - the most commonly reported method of using fentanyl was by injecting the contents of the fentanyl patch after mixing it with an acidifier, which was reported by 87% of participants
 - 82% reported this as their main method of using fentanyl

Ottawa I –Track Study 2010

- 47% reported that it is difficult or very difficult to get fentanyl. Conversely, 38% of participants reported it is easy or very easy.
- Over three-quarters (77%) of participants reported buying fentanyl patches from a dealer or someone on the street.
 - 68% reported this as their main method of getting fentanyl.
- Participants reported using the same patch on average 4 times before getting all the medication from it.
 - Note: this ranged from 1 to 20 times and is likely affected by the size and strength of the patch used.

Ottawa I-Track Study 2010

- Over one-quarter (28%) of participants reported selling, giving or lending a patch to someone else after having it themselves.
- Over one-quarter (26%) of participants reported buying or borrowing a patch to use themselves after someone else had already used it.

Ottawa I-Track Study 2010

- Among all participants:
 - Nearly one fifth (18%) reported at some point experiencing an overdose when using fentanyl.
 - Among those who had at some point overdosed on fentanyl, this occurred an average of three times per person.
 - Who reported using fentanyl in the past six months, over one-third (34%) reported experiencing an overdose when using fentanyl.
 - Among those who had at some point overdosed on fentanyl, this occurred an average of three per person.

Ottawa I-Track Study 2010

- Among all participants:
 - Over two thirds (68%) reported that they personally know of somebody else who has overdosed while using fentanyl.
 - Among those who knew someone who overdosed on fentanyl, participants reported knowing an average of six people who overdosed on fentanyl.
 - 52% reported personally knowing somebody who has died from a fentanyl overdose.
 - Among those who knew someone who overdosed on fentanyl, participants reported knowing an average of four people who died from a fentanyl overdose.

Wellbutrin

- Indications: approved antidepressant, smoking cessation aid, and preventative treatment for seasonal affective disorder. Its off-label uses include treatment of attention deficit/hyperactivity disorder
- Actions: acts as a norepinephrine and dopamine inhibitor

Wellbutrin

- Clients reveal injecting Wellbutrin results in a “high just like crack” but “doesn’t bring you down as much after”
- Clients state they crush the slow release tablets and cook them to prepare for injection (a similar process to injecting Morphine/OxyContin tablets)
- Clients report that one 300mg sells for about \$30.00 on the street

Discussion

- Is the equipment we are providing safe for injecting non-injectables?
- What common practices are you seeing in your region? State location.

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