Frequently asked questions about naloxone:

Part 2

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Effectiveness

Do take-home naloxone programs reduce opioid overdose deaths?
Take-home naloxone programs are seen to be effective at treating opioid overdoses. By increasing naloxone distribution within your pharmacy, positive effects will be seen in your community. A systematic review by Chimbar and Moleta¹ found that take-home naloxone programs generally work to prevent fatalities due to overdose. Within an analysis of 22 trials to assess causality, the results revealed a strong association between take-home naloxone programs and overdose survival.² Distributing naloxone to the general public and training people in its use are associated with increased odds of identification and recovery from an overdose.³

What are the statistics within Canada?

A modelling study in British Columbia estimated that a take-home naloxone program prevented 226 deaths between January and October 2016.⁴ If the study had been conducted earlier, the program estimated that it would have prevented an additional 344 deaths.⁴ In Manitoba, a study found that 765 take-home naloxone kits were dispensed, with 93 kits being replaced, suggesting that 1 kit was used for every 8 dispensed.⁵ In British Columbia, the utilization rate of naloxone has increased since October 2016, when 5.8 kits were distributed per reversal; in October 2019, 3.3 kits were distributed per reversal.⁶ The statistics within Canada show that naloxone kits are being used by the public and help to prevent accidental deaths.

Intramuscular vs intranasal naloxone

What types of naloxone dosage forms are available?

After naloxone was taken off the prescription drug list, the primary dosage form was an intramuscular (IM) injection.^{7,8} In

2016, intranasal (IN) naloxone was approved by Health Canada.⁹ Evidence shows that both dosage forms are effective at reversing opioid overdoses.¹⁰

Are there pharmacokinetic differences between IM and IN naloxone?

The 2 dosage forms commonly used in Canada, the IM injection and the Narcan nasal spray, have not been tested head to head for differences in onset or duration of action. However, studies in other jurisdictions have compared IM vs IN routes of administration. A few studies have reported slightly delayed T_{max} values for IN doses compared to IM doses: 30 minutes vs 22.8 minutes¹¹ and 15-30 minutes vs 10 minutes.¹² Conversely, one study found that the IN formulation resulted in a faster increase in plasma concentration, by 2.5 minutes, which suggests a potential advantage compared to IM naloxone.⁷ Despite these and other differences, there is no indication that one product is superior to the other.

How do IM and IN naloxone compare when used in the real world?

Again, the 2 dosage forms commonly used in Canada, the IM injection and the Narcan nasal spray, have not been tested head to head for differences in efficacy in Canada. In other jurisdictions using different formulations, differences between the 2 routes of administration have been measured in clinical trials. However, a systematic review of IN and IM naloxone concluded that both provided adequate exposure to reverse an opioid overdose, with IN naloxone being appropriate for most patients, excluding those with known nasal pathology.¹³ With respect to training and comfort around naloxone, IN naloxone was administered faster and more effectively than IM naloxone by members of the public in a simulated overdose situation.¹⁴ ■

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Take-Home Naloxone

SAVES LIVES

Take-home naloxone programs are effective. The more kits given out, the more lives you can save.

» Chimbar & Moleta, 2018

How effective is naloxone?

90%

Research shows in places where take-home naloxone (THN) programs are implemented, use of the kit reverses the overdose at least 90% of the time.

» McDonald & Strang, 2016

Canadian statistics:

+226

During a study in British Columbia, 226 lives were saved by a THN program from Jan – Oct 2016.¹

1 in 8

A study in Manitoba found that 1 of every 8 distributed naloxone kits gets used.²

In Alberta, **15** naloxone kits are dispensed for every one overdose reversal.³

In British Columbia, **3.3** kits are dispensed per reversal (as of Oct 2019).⁴

Distribution to the public helps!

When the public is trained and supplied with naloxone kits, overdoses are much more likely to be identified and reversed.⁵

To reduce overdoses and stigma around naloxone, it's important for the public to be knowledgeable about it and have access to it.

» (i.e. pharmacies, public health, safe injection sites, first responders)

The bottom line:

With data from several provinces in Canada, THN programs are an effective tool in treating opioid overdoses.

Increasing naloxone distribution reduces the chance of harm from an opioid overdose and **saves lives.**

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