

Predicting harms posed by the injection of pharmaceutical preparations in New Zealand

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Introduction:

The injection of drugs from oral and transdermal pharmaceutical preparations poses additional risks to people who inject drugs. Tablets contain many other ingredients (excipients) alongside the active ingredient. These aid the manufacturing process, help in the identification of the medicine or its strength and alter the release characteristics (as in slow release tablets). These excipients are known to cause a range of problems if injected. The isolated nature of New Zealand means that drug users often resort to injecting diverted pharmaceutical products, such as morphine, methadone and methylphenidate.

Design and Methods:

A narrative literature review was conducted to identify injection-related harms of injecting pharmaceutical products and to identify the causes of these harms. Products liable to misuse due to their active ingredients currently available in New Zealand were also identified using the New Zealand Formulary and Medsafe datasheets, and their excipients examined.

Results:

The literature review identified 79 studies of importance. The excipients most commonly reported to cause harm when injected were talc, starch and microcrystalline cellulose, with their insolubility cited as the reason for this. Morphine, methadone and methylphenidate products are amongst the products misused that contain these excipients.

Discussions and Conclusions:

Preventative approaches (e.g. tamper resistant formulations) make it more difficult to inject these drugs, but experience in other countries has demonstrated that the use of tamper-resistant products and deterrents may be a cause of further harm while not reducing misuse. We propose an alternative harm reduction approach.

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