

# Audit of the labelling of hazardous drugs in the Canadian market

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## Introduction

- There are no guidelines regarding the commercial labelling of hazardous drugs in Canada.
- However, it is essential that hazardous drugs can be clearly and easily identified throughout the drug-use process in order to prevent occupational exposure for healthcare professionals.

## Objectives

- To describe the current state of the labelling of hazardous drugs in Canada.

## Methodology

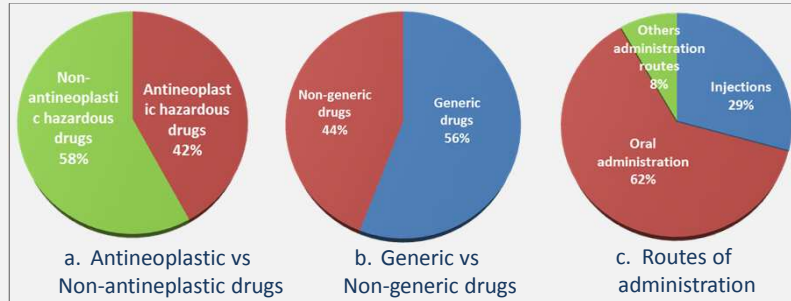
- The list of hazardous drugs issued by the National Institute for Occupational Safety and Health (NIOSH) in 2012 was used.
- Outer and inner labels of hazardous drugs from one Canadian wholesaler were analysed.
- For each label, we evaluated the presence of symbols or mentions about the existence of a risk. Examples of symbols or mentions expected:
  - ✓  (1)
  - ✓ « PRECAUTION » (1)
  - ✓ "wear appropriate personal protective equipment (PPE) during their handling"<sup>2</sup>
- We defined a label as compliant if at least 1 of the 3 following criteria was present:
  - ✓ cytotoxic symbol,
  - ✓ "cytotoxic/toxic" mentions, 
  - ✓ safe handling precaution mentions.
- We calculated the proportion of compliant labels
- The analysis was performed overall, for antineoplastic drugs vs non-antineoplastic drugs, for generic drugs vs non-generic drugs and depending on the routes of administration.

## References :

- ASSTSAS. Prevention Guide – Safe handling of Hazardous Drugs (2008).
- American Society of Health-System Pharmacists. ASHP guidelines on handling hazardous drugs (2006).

## Results

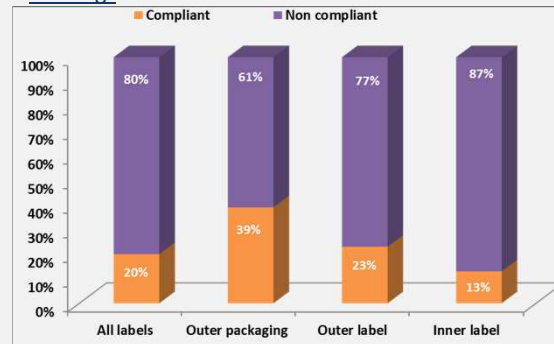
- 335 drugs analysed** on August 21st, 2014, distributed as follows:



- 383 labels were assessed** (i.e. 18 outer packaging, 240 outer labels and 125 inner labels).

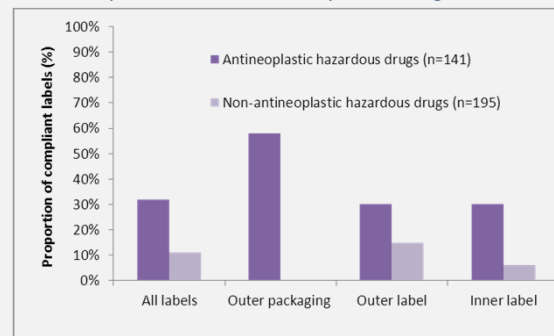
- Proportion of compliant labels:**

### 1. All drugs



Of all the labels analyzed, 80% of the labels were non-compliant.

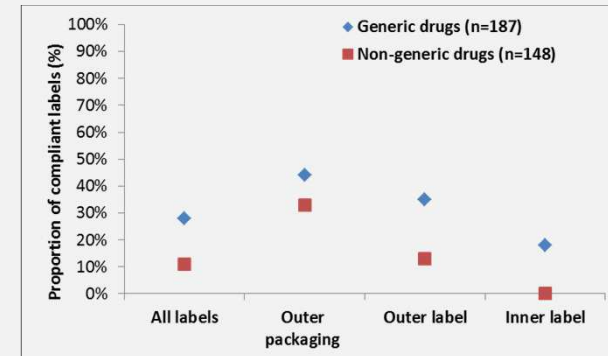
### 2. Antineoplastic vs non-antineoplastic drugs



Antineoplastic hazardous drugs presented a higher proportion of compliant labelling than non-antineoplastic drugs.

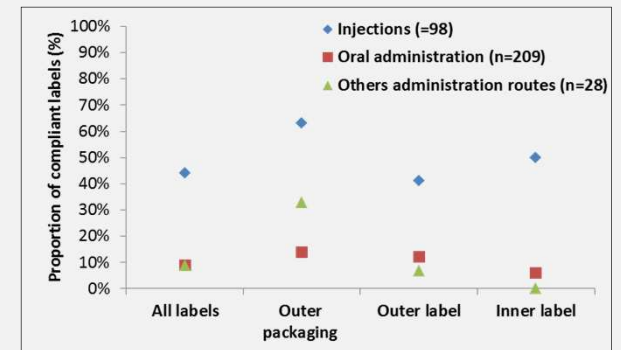
### 3. Generic vs non-generic drugs

Generic drugs showed a higher proportion of compliant labelling than non-generic drugs.



### 4. Routes of administration

The proportion of compliant labels was higher for injectable drugs than for other routes of administration.



## Conclusion

- Less than a quarter of hazardous drugs labels were considered compliant in clearly identifying the risks of occupational exposure.
- However, all hazardous drugs, including non-antineoplastic drugs, from all manufacturers and for all administration routes, should be recognizable as such to prevent occupational exposure.
- Health Canada should define criteria required to clearly label hazardous drugs.