

# Paediatric medication shortages

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Problems associated with medication shortages have escalated over the past five years and affect a range of drugs, including antibiotics, histamine receptor antagonists, and sympathomimetics. Shortages can result in having to use suboptimal medications to treat children and youth, with the risk of serious consequences.

The CPSP conducted a national one-time survey of medication shortages affecting children and youth, to assess impact on paediatric practice and collect data on medication alternatives. The survey was circulated to all participants with a response rate of 27%.

Sixty-two per cent (62%) of respondents reported experiencing a medication shortage while caring for children and youth. Only 32% had received advance notice of pending shortages, usually from a hospital pharmacy department. Over half of respondents (53%) noted an increase in calls from local pharmacies requesting information about alternatives to medications that were unavailable. A few (16%) also reported that a medication shortage had resulted in complications, primarily in terms of delay in treatment, while only 4% of respondents indicated that using an alternative medication had resulted in medication errors. Importantly, 4% also reported that vital medications were not substituted. Although 63% of respondents acknowledged that they did not know the actual cost of medications, 7% indicated the alternatives used were more expensive. Troublingly, one-quarter of respondents (24%) reported finding problems with therapy after medications had been removed from the market despite their usefulness for treating children and youth.

When asked about the publicly accessible websites providing information on medication shortages, the vast majority of respondents (93%) were unaware of their existence. Not surprisingly, when asked about the possible solutions to prevent paediatric medication shortages and improve access to appropriate therapy during shortages, respondents identified the pharmaceutical industry as the most common group that would need to be part of the solution. Other solutions included educational approaches to inform child health care providers as to drug shortages, ideally in advance of the shortage, as well as increasing research on the development of optimal therapies for the paediatric population.

This is the first study to investigate the issue of medication shortages affecting children and youth in Canada. Results confirm that this is a common problem, with a significant number of cases resulting in delayed treatment or the disappearance of useful drugs from the market.

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