

Accidental or intentional methadone exposure in children and young infants

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Methadone is a synthetic opioid agonist widely used in methadone maintenance treatment (MMT) programs for people with opioid dependency, and less commonly used as analgesia for palliative care and chronic pain. It is dispensed as a brightly colored solution in a juice-like dilutant that must be refrigerated. Methadone presence in the home may precipitate accidental ingestion by a child mistaking the suspension for juice, or intentional exposure by a caregiver giving it to a child as a sedative. Sadly, ingestion of only 0.5 mg/kg of methadone can be lethal for a child.

A one-time CPSP survey was done to evaluate and raise awareness of accidental and intentional paediatric methadone exposure, and to capture the number of observed cases in Canada in a 12-month period.

The survey response rate was 25% (642/2,559). Of these, 27 (4%) respondents reported caring for at least one child with suspected or confirmed methadone exposure within the preceding 12 months; 78% identified one or two cases, 15% identified three or four cases and 7% identified between five and 10 cases. Perceived clinical outcomes are presented in the table. Only 15 of the 27 respondents who had seen a case indicated that a child welfare authority was notified. Of note, the same case may have been reported by more than one respondent.

Forty percent of respondents were unaware that methadone might be intentionally given to a child by a caregiver as a sedative and 27% were unaware that even a small dose can be potentially lethal in children. Only 45% knew the importance of counselling caregivers about safe storage of methadone in the home.

Perceived clinical outcomes of suspected/confirmed methadone ingestions (n=27 reports)	
Perceived clinical outcomes	Frequency (%)
Not serious	11 (41)
Serious	15 (46)
- Hospitalization	8 (30)
- ICU admission	5 (19)
- Death	2 (7)
Data not reported	1 (4)

The results of this survey confirm that methadone ingestion in children is rare but can be lethal. Although less than 5% of all respondents had cared for methadone-exposed children, of those who had, 22% cared for multiple children (3–10 cases). This suggests that exposure may not be so very rare. The survey confirmed that paediatricians need more education about the risks and consequences of child methadone exposure as less than half of the respondents were aware that methadone may be intentionally given to a child as a sedative. Methadone exposure may be an under-recognized form of child maltreatment as just over half of the respondents who had seen a case indicated that a report to a child welfare authority was made. A targeted surveillance program would aid in further defining this issue in Canada.

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