




Ambulance Referrals to an Australian Poisons Information Centre: a Retrospective Series

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1 in 3
Exposures were deliberate self poisonings

95%

Asymptomatic or mild toxicity

47% exposures did not require medical review - suggests an opportunity exists to better rationalise ambulance resources to poisoned patients

Introduction

Ambulance services often manage poisoned patients in the prehospital environment despite limited training in toxicology. They are encouraged to contact the local poisons information centre for advice. The Queensland Poisons information Centre (QPIC) is a 24-hour service for advice on poisonings. This study aims to characterise the nature of referrals from a state ambulance service to a Poisons Information Centre.

Methods

This was a retrospective observational series of referrals to QPIC from ambulance staff between January 2020 to December 2020. The QPIC Pharmhos database was searched for calls originating from ambulance staff. Call reports were reviewed to extract data on call date and time, caller designation, patient details, exposure details and advice provided by the specialist in poisons information.

Results

There were 1537 referrals regarding 1420 poisoning exposures in 1447 patients. There were 117 recalls. Calls originated from paramedics in 1107 (71.6%) calls and dispatch officers in 436 (28.4%) calls. Paediatric patients <16 years were involved in 492 (34.6%) exposures and most often 1-4 years old.

Most referrals involved pharmaceuticals (756/1420 [53.2%]), followed by chemicals (557/1420 [39.2%]) or drugs of abuse (69/1420 [4.9%]). Most exposures were benign with asymptomatic (475/1008 [47.1%]) or mild symptoms (479/1008 [47.5%]). Only 5.4% (54/1008) had moderate or severe toxicity. Advice provided by PIC pharmacists are described in Table 1. Hospital transfer advised in 811/1537 (52.8%) calls, many of these were for mental health assessment (451/811 [55.6%]) due to the nature of deliberate self poisoning exposures.

The median number of recalls was one. Most of the time, the recall was made by a different caller (74/117 [63.2%]). Additional advice or changed advice was provided in 42/117 (35.9%) calls.

| QPIC advice (n = 1537) | n (%) |
|------------------------|------------|
| Reassurance | 677 (44.0) |
| General agent advice | 659 (42.9) |
| First aid measures | 358 (23.3) |
| Supportive care | 357 (23.2) |
| Specific treatment | 33 (4.4) |
| Hospital transfer | 811 (52.8) |

Table 1. Advice provided by Poisons Centre pharmacists in 1537 referrals to QPIC from ambulance staff

Most common pharmaceutical exposures



Conclusions

Ambulance staff commonly contact the PIC for advice about benign exposures. Transfer to hospital was not advised almost half of the time. There is an opportunity for Poisons Centres to assist in better rationalizing ambulance resources to poisoned patients.