

Trends in enquires to the UK National Poisons Information Service involving preschool (0-4 years) children in 2015. Does obtaining knowledge help with prevention?

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Objective

To investigate trends in the ingestions of the 'preschool' population to see if knowledge of circumstances of exposures might help in planning prevention strategies to prevent suspected poisonings. The UK National Poisons Information Service (NPIS) receives around 47,000 telephone calls annually and around 30% concern children less than five years old.

Method

Telephone enquiries to the NPIS, recorded on the United Kingdom Poisons Information Database (UKPID), were analysed retrospectively from 1st January to 31st December 2015 inclusive.

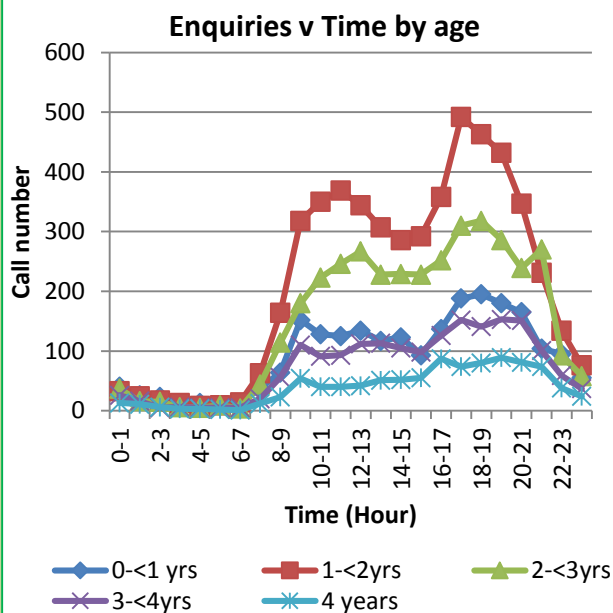
Results

There were 13,690 enquiries to the NPIS regarding children aged 0 to 4-years-old. Most had a feature code of 'asymptomatic' and 11,763 (86%) had a poisons severity score of 0 [1].

Most exposures were classed as accidental (93%) and occurred in the home (92%). The majority of exposures were between 1-2 years of age (37%). The older children had a slightly higher likelihood of symptoms occurring: 15% developing minor and 2% moderate features in 4-year-old children compared to a 12% and 1% average respectively.

Therapeutic errors accounted for 773 (6%) of these enquiries, but were far more common in children under 1-year-old (45%), mostly recorded as occurring in the home, although enquiries regarding therapeutic errors also came from GPs and Hospitals (14%).

The time of exposure is bimodal with a peak between 17:00 and 20:00 and another smaller peak between 10:00 and 14:00. This pattern is most pronounced in children between 1 and 2 years (27% calls between 17:00-20:00 and 20% between 10:00 and 14:00) but is present within most age groups, although 4-year-olds show a somewhat smoother increase throughout the day. There is no noticeable correlation between severity of symptoms and time.



Conclusion

It is reassuring that exposures within this demographic are mostly asymptomatic. Whilst the vast majority of cases are accidental they seem to coincide with particular times of day, e.g. mealtimes, or possible times for medicines administration. These results suggest that it could be worth exploring in more detail the circumstances of exposure to inform the targeting of prevention programmes; for example, are parents distracted at mealtimes?

References

[1] Persson HE, Sjöberg JK, Haines JA et al. Poisoning severity score. Grading of acute poisoning. J Toxicol Clin Toxicol. 1998;36:205-213.