



Colchicine exposures reported to the UK National Poisons Information Service

Jan 2008–31 July 2018

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Objective

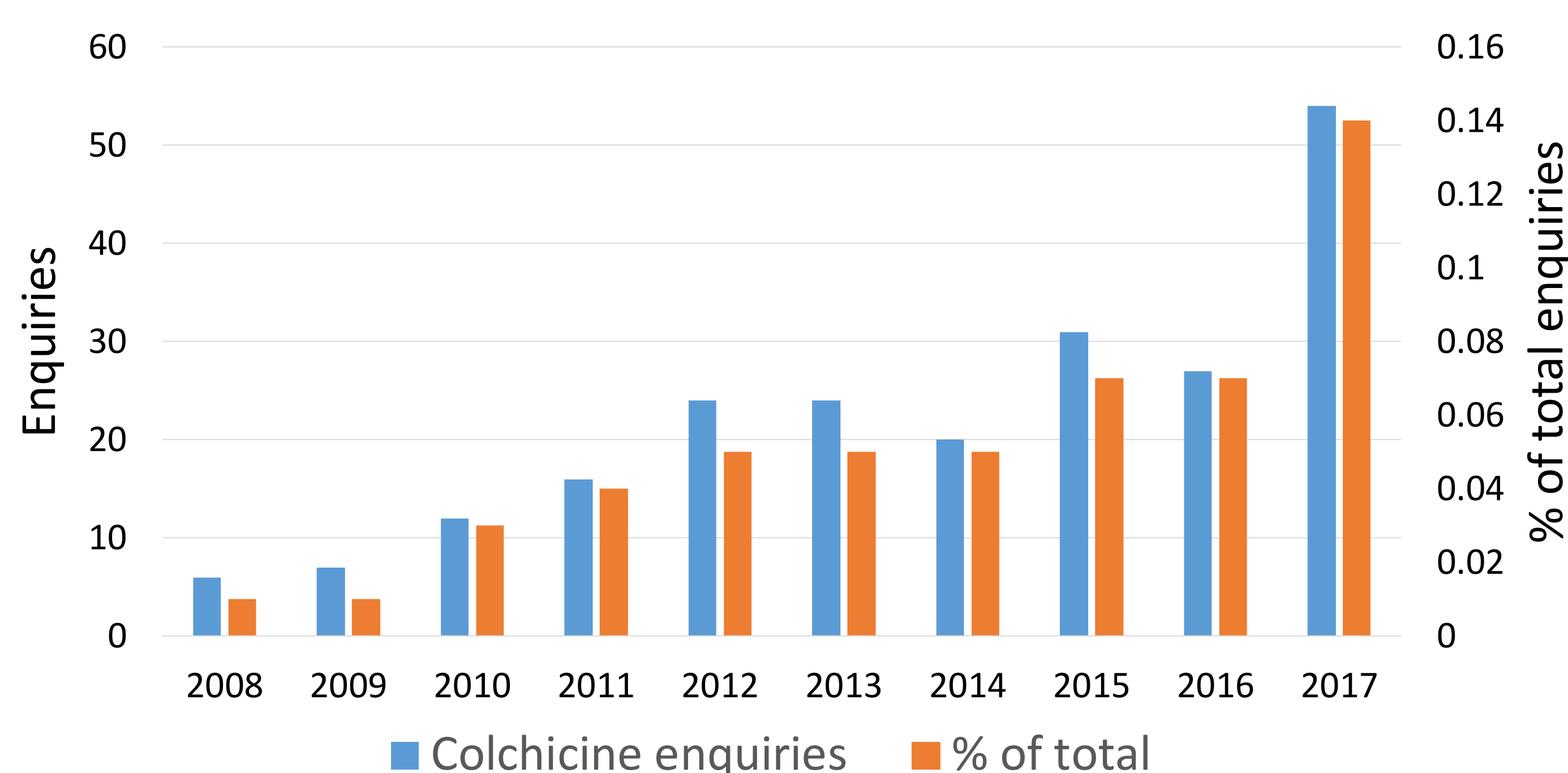
Primarily used in the treatment of gout, colchicine has a narrow therapeutic index, the reported fatal dose varies widely and there is no specific antidote. We report on the pattern of enquiries received by the NPIS in England and Wales.

Methods

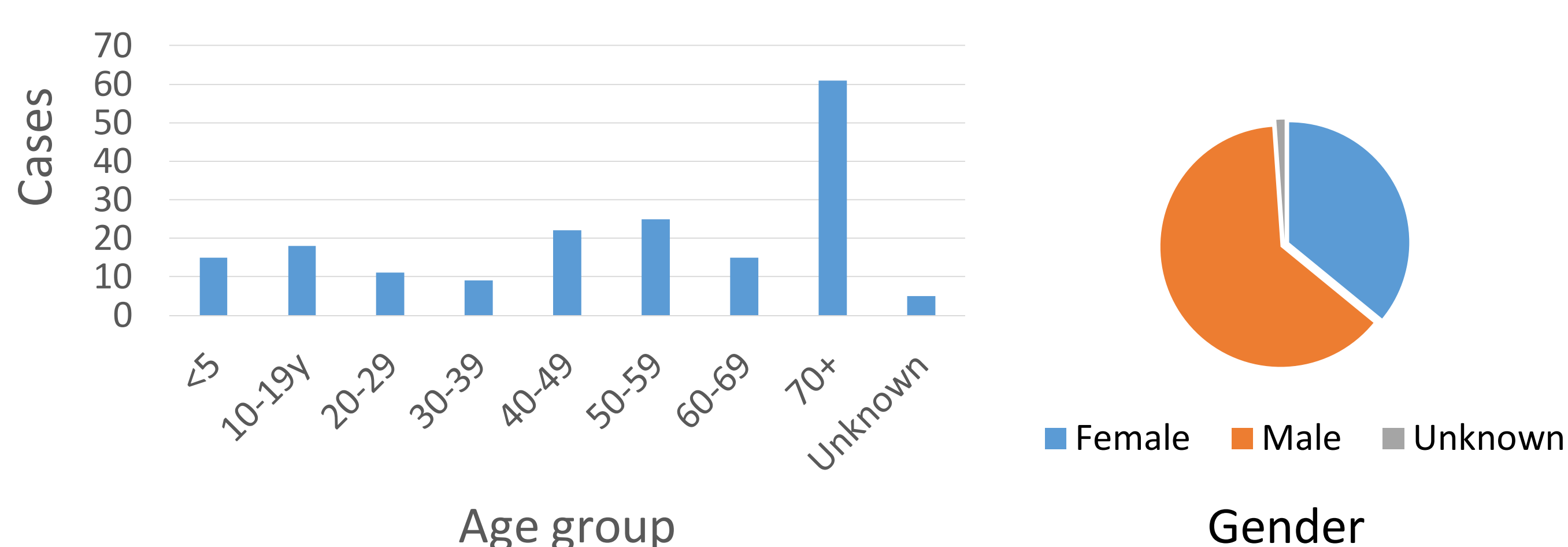
Records of telephone enquiries received from England and Wales by the NPIS between 1 January 2008 and 31 July 2018 were reviewed and reported.

Results

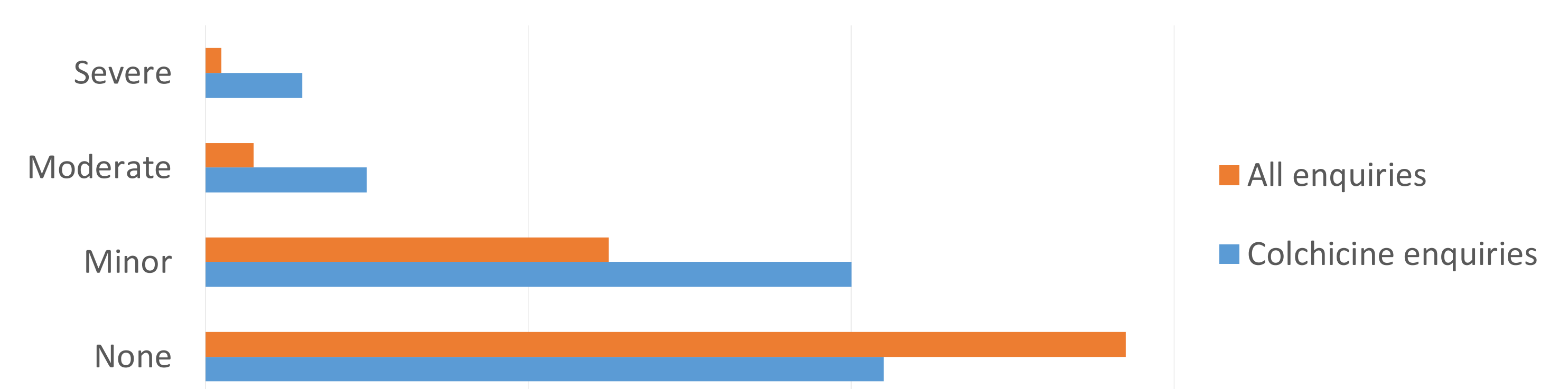
A total of 248 enquiries regarding 202 cases were received during the study period. Enquiry rates demonstrate a statistically significant consistently upward trend from 0.01% of total enquires in 2008 to 0.14% in 2017 (Mann-Kendall Trend Test, $p < 0.05$).



Peak incidence, 33%, occurred in the 70+ age group and in males, 65%. Therapeutic error was reported for 46%, intentional exposure 28%, accidental 19%, with unknown and other accounting for 7% of cases.



Analysis of Poisoning Severity Score (PSS) indicated an increased risk of severity with colchicine exposure when compared with all enquiries; none 42% v 67%; minor 40% v 25%; moderate 10% v 3%; severe 6% v 1% (Chi-squared with Yates correlation, $p < 0.05$). The proportion of intentional moderate/severe cases (25 of 33) was greater than for the less severe (31 of 169) (Chi-squared with Yates correlation, $p < 0.05$).



Thirteen (39%) involved multiple agent exposure. The ingested dose (calculated on average weight when not documented) involving acute ingestion ranged from 0.09 to 1.1 mg/kg.

Outcome was reported in 22 cases. In those where recovery was reported (n=11) the highest acute dose was 75 mg (~1.1 mg/kg). In this case, symptoms included vomiting abdominal pain, diarrhoea and increased transaminase activity, no details on late complications were recorded.

Eleven deaths were reported, 2008(1); 2012(1); 2014(1); 2016(3); 2017(3) and 2018(2), all of which related to acute or staggered intentional exposure. Seven were reported to involve multiple drug exposure. The lowest dose in which death was reported with no other medication was involved was 15 mg (estimated 0.21 mg/kg).

Conclusion

The annual incidence of enquires increased over the study period. This trend is of concern, given the proportion of moderate or severe PSS cases reported to the UK NPIS was higher than the average, compared to all NPIS enquiries during the same period. All reported deaths resulted from intentional exposure, which itself accounts for almost a third of enquiries received. Further analysis with prescription data is warranted to identify potential strategies further review of poisoning with colchicine.

Reference: Persson HE, Sjöberg GK, Haines JA, Pronczuk de Garbino J. Poisoning severity score. Grading of acute poisoning. *J Toxicol Clin Toxicol.* 1998;36(3):205-13.

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