A review of the methods and efficiency of follow-up of enquiries to the UK National Poisons Information Service (NPIS) in 2016

Williams H,[1] Moyns, E,[1] Pucci M,[2] Sandilands EA,[3] Thompson JP,[4] Thomas SHL,[5] Bradberry SM.[1]

[1] National Poisons Information Service: Birmingham Unit, Birmingham, UK;
[2] West Midlands Poisons Unit, City Hospital, Birmingham, UK;
[3] National Poisons Information Service: Edinburgh Unit, Edinburgh, UK;
[4] National Poisons Information Service: Cardiff Unit, Cardiff, UK;
[5] National Poisons Information Service: Newcastle Unit, Newcastle, UK

Objective

The operating policy of the UK National Poisons Information Service (NPIS) requires the Specialist in Poisons Information (SPI) receiving telephone enquiries to follow-up cases where the Poisoning Severity Score (PSS) [1] is severe (PSS3) or where enquiries were referred to a consultant toxicologist. The aim of the study was to review methods, efficiency and outcome of follow-up.

Methods

All case records with a PSS3 and those referred to a consultant toxicologist from 1 January 2016 to 31 December 2016 inclusive were extracted from the UK Poisons Information Database (UKPID) and analysed retrospectively.

Results

During the study period the NPIS handled a total of 45,408 enquiries, of which 2171 (4.8%) fulfilled the inclusion criteria (2009 consultant referrals and 162 PSS3 enquiries not referred). Follow-up was not carried out in 884 (41%) enquiries for the following reasons: deemed unnecessary by the SPI or consultant (n=279), duplicate enquiries about the same patient (n=270) or not appropriate for other reasons including enquiries from paramedics, general practitioners and the public service helpline (n=231) (Figure 1). In 104 records no reason for lack of follow-up was documented.

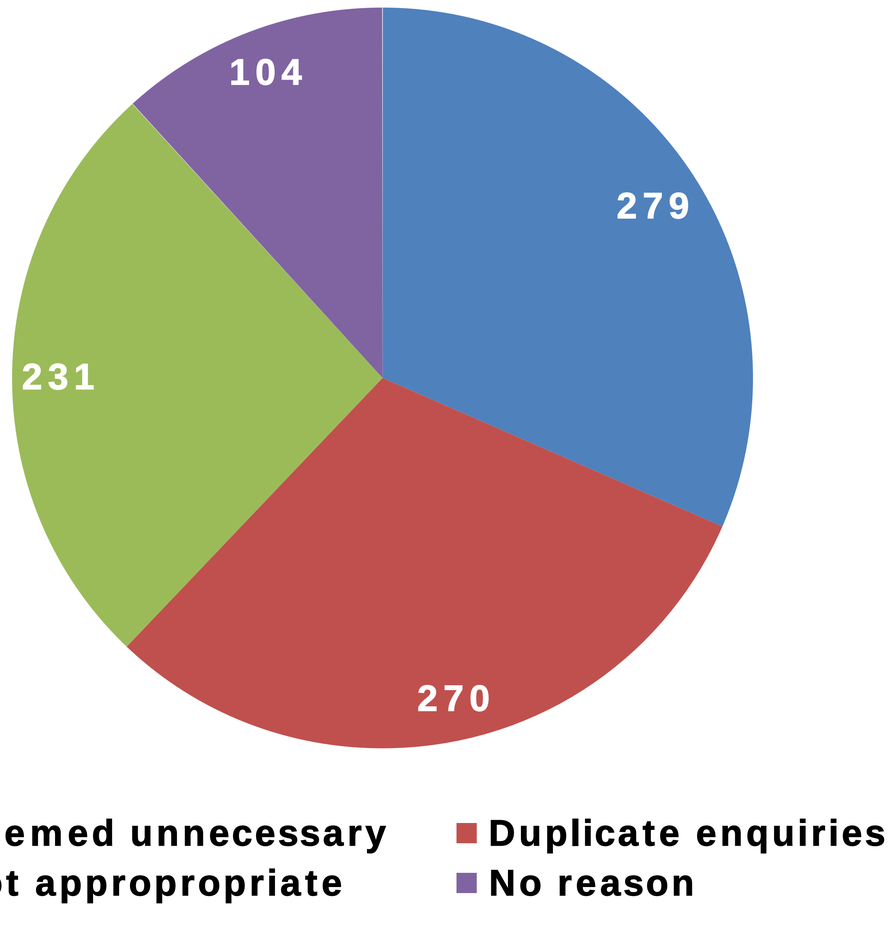

Figure 1. Reason for no follow-up

Of the 1287 enquiries that were followed-up, documentation of a definitive outcome was achieved in only 800 (62%). These outcomes were: complete recovery in 566, ongoing features of poisoning in 90, sequelae in 26, features unrelated to poisoning in 27 and death in 91 (Figure 2). Follow-up techniques varied between the four NPIS units and included telephone, postal questionnaire, email or a combination. During the study period telephone alone was the most frequently used method (n=702) with an outcome recorded for 83% (n=585). In total, 431 postal questionnaires were sent out and 139 returned, a response rate of 32%.

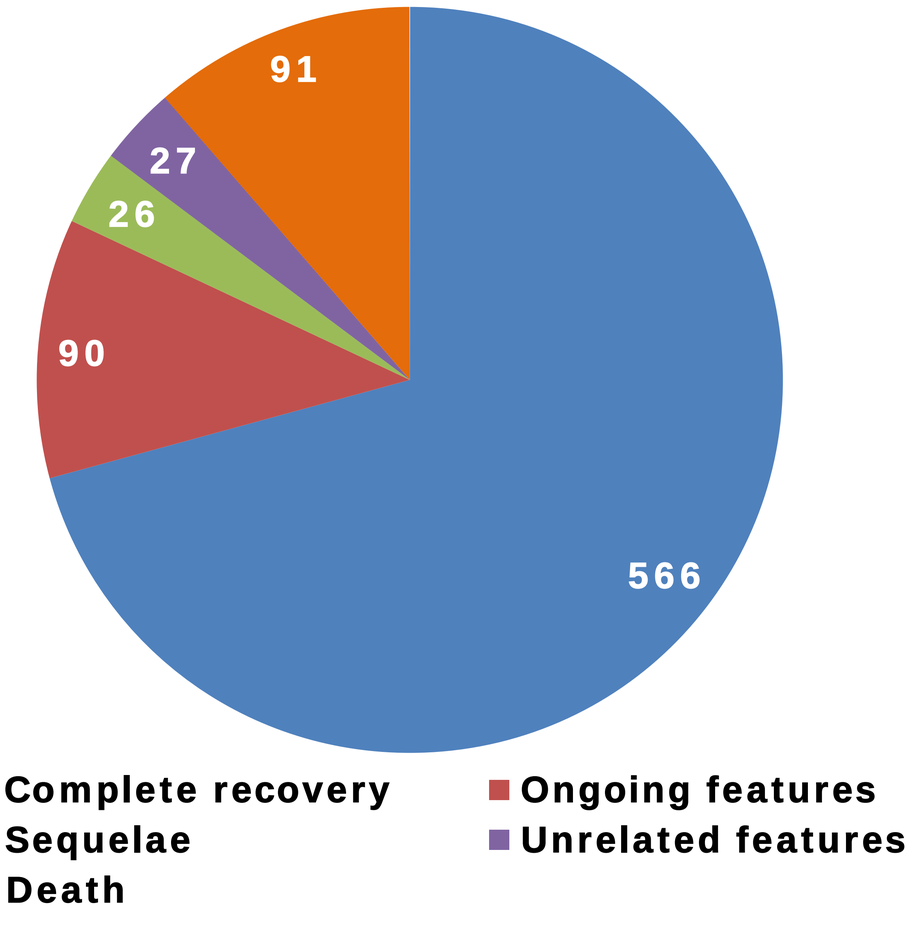

Figure 2. Enquiry outcome

Conclusion

Follow-up data are informative for SPIs, clinicians and end-users of the service. Outcome data are essential for governance and may contribute to the assessment of treatments for which there is a minimal evidence base. In this study telephone follow-up was the most effective method of obtaining outcome data for poisons enquiries but was time-consuming. This may explain the suboptimal completion of follow-up through to a definitive outcome. Ways to improve the efficiency of follow-up data collection, possibly using web-based methods, should be explored.

References

1. Persson HE, Sjoberg GK, Haines JA, De Garbino JP. Poisoning Severity Score. Grading of acute poisoning. J Toxicol Clin Toxicol. 1998; 36: 205-213.