Oral Presentation - 13

Using Toxbase to Pick Up Chemical Incidents from Paramedics and Emergency Departments

Michael Eddleston, Catherine Crawford, David Lupton, Caroline McGrory

National Poisons Information Service - Edinburgh unit, Royal Infirmary of Edinburgh, UK

Abstract

Objectives: The National Poisons Information Service (NPIS) provides clinical information on poisoning management to front-line staff via the Toxbase online database. In 2012/13, TOXBASE was accessed on over 500,000 occasions. These enquiries are tracked in time and place and can be used for studying poisoning epidemiology. The NPIS is also able to rapidly detect users accessing 142 chemical entries of interest for deliberate exposures. We aimed to look at its activity over one year.

Methods: As a healthcare worker accesses an entry of interest (e.g. chlorine, carbon monoxide, hydrogen cyanide), the program asks whether they are managing a patient. If they are, they may enter their contact details to allow further assistance to be provided by the NPIS. The NPIS then receives an automatic email alert ("urgent alert") within 10 minutes, providing the time of access, the user's department and location, whether they are managing a patient, and their contact details if entered. A Specialist in Poisons Information (SPI) then contacts the user to collect details on the case and to offer consultant and public health advice as required.

Results: During the 2012/13 year, the NPIS received 10,892 urgent alerts from 962 different users, regarding 127 entries. The most commonly accessed entry was carbon monoxide (2,837 accesses; 26.0% of all urgent alert accesses). 273 alerts, regarding 48 different TOXBASE entries, were marked as being related to a patient, provided a contact number, and were followed up by NPIS staff. Nine cases of multiple accesses to the same entry, without provision of contact information, were also followed up. As an example, in December 2012, the aluminium phosphide entry was accessed 4 times by a single hospital and once by the local Ambulance service within a 50 minute period. NPIS contacted the Hospital where 19 patients were being treated following potential exposure to aluminium phosphide. This information was passed on to public health authorities.

Conclusions: The NPIS can, in near real time, collect data on patients presenting with specific poisonings to hospitals across different regions of the UK, while establishing a direct method of communication. Poison Centres offer several advantages for such a surveillance role: they offer a 24-hour service, can act promptly on real time alerts, disseminating the information appropriately and rapidly, and are frequently used by hospital emergency departments as the first port of call for advice on cases where poisoning might be suspected.