

Toxicological Information- und Data Network - A European Challenge?

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Information about Substances in Poison Centres

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Introduction:

Toxic effects are actually related to chemical substances as ingredients in preparations and articles (products). Poison information about products is therefore only possible if their ingredients can be identified and toxicological information is available.

Information about substances is therefore directed to two different objectives:

1. Information about toxic properties of substances, particularly related to humans
2. Identification of relevant toxic substances in products

Information about toxic properties of substances

In general, there are about 100.000 chemical substances on the market, about 30.000 with suspected toxicological relevance, and appr. 4.000 for which information (with a broad range of quality) is available.

There are several categories of information on substances:

1. Common available publications (scientific literature, fact-data bases

A number of publication is available, either in printed form or as electronic media via internet or on CD-Rom.

Agencies assess the toxicology of substances according to their regulatory functions. The respective reports are available for the public.

2. Confidential information

This information is only accessible for specific institutions. Many poison centres perform evaluations of their case documentation to detect unknown toxic effects or to estimate the incidence of effects and, sometimes their degree, by preparing substance monographs. The information is often only accessible for the respective centre, however, it may also be very useful for others and should therefore be exchanged between the PC's. The BgVV committee "Recognition and Treatment of Poisonings" is working since 1969 having the main objective to comprise information on substances in poison centre monographs. If the information is sufficient, then the monographs may be published.

Other confidential toxicological information is documented by manufacturers and producers of chemical substances which could be very useful for PC's.

Identification of relevant toxic substances

Evaluations of cases is not only useful for substance evaluation, but also for identification of substances of concern. Several criteria may be taken to characterise "concern" namely:

- The frequency and doses by which substances are involved in poisonings
- The frequency and amounts by which substances are on the market and therefore available for people
- The severity of symptoms observed

- The degree of knowledge
(for this item concern may be stated for substances where information is lacking or where information must be updated)

Poison centres may play a significant role to identify substances having substantial toxic properties and are therefore of "concern" either for preparation of valuable information or for making proposals to reduce risks of health hazards.

Conclusions

Communication between Poison centres, Industry and national and international competent authorities and agencies is a key task for developing and verbessern of knowledge about substances. For national purposes, the TDI project is planned to be tested in germany, additionally, an international network which helps for circulation of information between the respectice European institutions and other internationally active agencies.

Suitable studies should be initiated to test the possibilities for co-operation.