

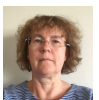
## The contribution of poisons information centres to pesticide risk reduction

A Poisons Information Centre (PIC) is a specialized unit that advises on, and assists with, the prevention, diagnosis, and management of poisoning. The primary role of a PIC is clinical: advising on first aid and the treatment of poisoning cases. The data collected by poisons centres in the delivery of their duties can also be used for public health purposes and to support the sound management of chemicals through toxicovigilance. PICs deal with poisonings from all causes including pesticides. They are, potentially, well placed to identify problems with pesticide misuse. This, however, depends on the PIC being sufficiently resourced to provide a 24/7 service and being well recognised and used by the population they serve. The data collected by PICs are also useful for surveillance and guiding regulatory decisions.

### About the Presenter



**Andrea Rother:** Prof H-Andrea Rother is a Professor and Head of the Division of Environmental Health in the School of Public Health and Family Medicine at the University of Cape Town. She has over 30 years of experience of researching, teaching and building capacity, particularly in Africa, on pesticides, risk communication and risk management. She has published widely on the topic and serves as a WHO expert panel advisor on JMPM.



**Joanna Tempowski** works for the Chemical Safety and Health Unit in the Department of Environment, Climate Change and Health at the World Health Organization in Geneva, Switzerland. Her areas of work include supporting the establishment and strengthening of poisons centres, providing technical assistance to countries in responding to chemical incidents, and poisoning prevention, in particular in relation to lead.

### DISCLAIMER

**Disclaimer:** The information below represents the opinions of members participating from different countries expressed during the discussion.

**Question 1: Is there a PIC in your country or the country you work in? How do poisons information centre help or could help identify problems with pesticide use in your country or the country you work in?**

YES	NO
<b>SOUTH AFRICA:</b> Yes - Red Cross War Memorial Children's Hospital and Tygerberg Hospital PICs provide a national 24/7 telephonic service for the public and medical personnel. There is also the Bloemfontein PIC and the Griffin poison info Centre that deals with wildlife pesticide poisonings.	<b>MALAWI:</b> No - but on the ground health centers and clinics are places that people consult/resort for poisoning. The information gives a clue as to the type of pesticides are commonly used and guide for government action.
<b>ZIMBABWE:</b> Yes - the PIC advises the general public and medical personnel in Zimbabwe about poisons toxicity, identification, symptoms and treatment.	<b>ESTWATINI:</b> No - A PIC could help the country by providing valuable database through collecting and monitoring exposure. It can be used as a real time and help trace pesticides poison trends within the country.
<b>TANZANIA:</b> Yes - the Tanzanian PIC helps to identify problems with pesticide use (e.g. offer a service to health professionals on how to diagnose poisoning cases from the pesticide users when exposed to agricultural and public health pesticide).	<b>NIGERIA:</b> No - but we have a project in development "National Drug and Poison Information, Emergency Response and Research Centre". If they collaborate with the Nigeria Medical Association, they could integrate Pesticide toxicovigilance and it will help to document all the reported cases.
	<b>UGANDA:</b> No - but a PIC will help collect data on poisoning cases, enquiries and maintain databases and statistics of such information.
	<b>ZAMBIA:</b> No - The country has done a feasibility study for the establishment of a PIC and we are in the process of setting one up. It will help with having statistics of poisoning incidences, which are key for decision-making.
<b>UK:</b> Yes - the UK has a long established PIC; the National Poisons Information Service, Newcastle unit is part of the UK NPIS network, which is commissioned by Public Health England. They answer enquiries from NHS health professionals relating to toxic exposures and include consultant support for more clinically complex cases.	<b>BELIZE:</b> No - having a PIC established within the country can aid in awareness of the potential hazards of poisons, provide first aid and triage advice to the community in cases of poisonings and provide updated data on the epidemiology of poison exposures.
	<b>TOGO:</b> No - there is no PIC but rather all cases of poisoning are referred to the Faculty of health sciences, in the event of death, the case is referred to anatomy pathology sector.

**Question 2: What other sources of data are there about pesticide exposures in your country or the country you work in and how effective are they?**

COUNTRY	SOURCES OF DATA ARE THERE ABOUT PESTICIDE EXPOSURES EFFECTIVENESS
<b>NIGERIA</b>	Pesticide exposure data is collected from researches in academia and their recommendations on preventing pesticide exposure is always welcomed by the stakeholders concerned with pesticide regulation.
<b>BELIZE</b>	Emergency care units of local hospitals, poisoning cases are managed and documented in hospital archives, police records and anecdotes to extension officers.
<b>ZAMBIA</b>	Postmortem results. Poison cases recorded at health facilities. Traditional leadership.
<b>ZIMBABWE</b>	Detailed occupational pesticide exposure data is available from NSSA, employer organizations, employers, farmer's unions/organizations and hospitals. The Government analyst laboratory houses all poison data for samples that are sent to them by the public, police and hospitals. The nature of poisoning is also recorded.
<b>TANZANIA</b>	Other data originate from the research through surveys completed by households, farmers and health professionals. In addition, other data on the poisoning due to pesticides are collected using Health Management Information System (HMIS) from health facilities.

<b>UGANDA</b>	Sources from wild life authorities through poisoning data. Academia and other research institutions could provide information about poison exposures through their research findings.	
<b>COUNTRY</b>	<b>SOURCES OF DATA ARE THERE ABOUT PESTICIDE EXPOSURES</b>	<b>EFFECTIVENESS</b>
<b>ESTWATINI</b>	The Ministry of Health database and the forensic laboratory database of the Royal Eswatini Police Service.	The data sources may not be detailed enough depending on how the information was gathered. Access to such information, it may not be easily accessible.
<b>SOUTH AFRICA</b>	OHS exposure databases that are kept by various government departments to comply with ILO regulations. Information can also be accessed from Hazardous Substances dealers/ Agro-dealers. Source of data can be elicited from government mortuaries in cases of unnatural deaths, police stations on reported cases, private hospitals, and laboratory facilities. Notifiable Medical Conditions – human pesticide poisoning must be reported by law in South Africa and this should be a robust data source. There are challenges with the reporting processes, but these are being addressed.	Helpful in knowing the rate of occurrence of incidences in a given environment more so that do not get to be reported even to a hospital.
<b>MALAWI</b>	There is a center for social research within the University of Malawi that carries out surveys on different issues, ranging from economy to politics, health and other social-cultural issues for academic purposes. The national statistical office also conducts surveys on different aspects of life, including health. Above all, there are some local and international organizations that are working in the health sector that also profile health-related matters e.g. WHO.	These sources are, in my view, effective owing to among other factors, their reputation. For example, WHO is an international organization, National Statistical Office is government affiliated and Centre for Social Research is affiliated to the university.
<b>ZIMBABWE</b>	The other information centers where data could be collected is the hospitals, Universities and the police.	Not effective as some of the metadata is in hard copies and cannot be easily accessed.
<b>PRESENTER NOTES</b>	Academic.	Unless academic institutions are linked to PIC data collection, it is research/project and funding specific. The data collection also is then not routine. It is also skewed data, as either it is based on hospital admissions or notified conditions or environmental health monitoring.

**Question 3: If your country or the country you work in does not have a PIC, do you think that this service could be provided from another country? Would a regional PIC work? Explain.**

#### NO:

**Language barrier:** The PIC service cannot effectively be delivered from another country as there will be some communication barriers.

**Bandwidth:** The network connection from one country to the other can be challenging. This will make service delivery very difficult. Sometime the people in local country may not have

information about PIC service being offered in a foreign country, this makes it difficult to offer the services.

**Data co-ordination:** They are not effective because there is no coordination of bringing data together. Further, people are not aware where to report in case of pesticide poisoning.

#### YES:

**Registering pesticides, novel poisoning approached, new pesticides being used, types of pesticides:** this information can then be shared amongst the countries in the region to raise awareness on these factors.

**Co-ordination:** Yes, it is possible to have a PIC from another country to coordinate pesticide poisoning cases.

**Harmonize the tariff for toll free lines:** Needed across countries and to build capacity in the identification of poison cases and administration of antidotes among health care practitioners.

**Expertise sharing:** a regional PIC can work for Uganda. Since a PIC provides advice on diagnosis, expertise and knowledge on the effects and management of exposure to chemicals to other practitioners including doctors.

**Shared resources:** For Belize specifically, it is my opinion that a regional PIC would work because Guatemala already has a functioning one. The details and inter-country collaboration would need to be sorted out but it can be a very positive initiative to look into because it is evident that we lack the necessary resources to establish and maintain a PIC.

**Data collection:** A regional PIC would be useful especially if networks for data collection from all the countries it serves are developed, this would make it relevant and useful.

**Cost saving:** The services can be provided from another country and a regional centre can also deliver the services temporarily, but it would be advisable that every country has its own centre to reduce the workload on the regional centre, if possible in multiple strategically locations within each country, while reporting to the National Poison centre on aggregation of useful information on toxicovigilance.

#### Resources:

##### Resources and Further Reading

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The **Division of Environmental Health (DEH)** Pesticide Discussion Forum is a bi-monthly online seminar for pesticide regulators and resource persons, as well as students in the Post-Graduate Diploma in Pesticide Risk Management (DPRM). Our aim is to provide support for managing pesticide risks and implementing risk reduction strategies. DEH is based in the School of Public Health and Family Medicine at the University of Cape Town (UCT). **This Digest was produced by: Tatum Louw** | Forum Administrator | lwxtat001@myuct.ac.za. **Prof Andrea Rother** | Forum Moderator | andrea.rother@uct.ac.za **Acknowledgement:** *Financial assistance from the Swedish International Development Cooperation Agency (SIDA), has been arranged by the Swedish Chemicals Agency (KemI)*

