

## Oral Abstracts

### Plenary

#### SUCCESSES AND CHALLENGES IN STRENGTHENING POISON CONTROL AND PREVENTION IN THE ASIA PACIFIC REGION

Thomas Y.K. Chan

*Department of Medicine and Therapeutics, Faculty of Medicine, The Chinese University of Hong Kong, Hong Kong, China*

##### Learning Objectives:

1. Learn from the experience of Asia Pacific poison control centres, research consortia and clinical toxicologists in poison prevention.
2. Recognise the impact of restricted access to pesticides and other high-risk poisons on the incidence of fatal self-poisoning
3. Appreciate the magnitude of public health problems caused by chronic exposure to arsenic and other heavy metals
4. Remember the roles of continuing learning and regional collaboration in hazard identification, risk assessment and poison prevention

**Introduction:** Poisoning is an important public health problem in the Asia Pacific Region. There are easy access to pesticides and continuing exposure to arsenic in drinking water in many areas. Intentional and accidental exposures to drugs, chemicals, natural toxins and emerging poisons can also occur. We should all learn from the public health initiatives and strategies to strengthen poison prevention and control in the Region and recognise the contributions made by the poison control centres, research consortia and clinical toxicologists.

**Methods:** Reports on poisoning and drug overdoses from the Asia Pacific Region were identified by searching Medicine, Embase, Google, Google Scholar and our archives of medical literature. Mainly toxic exposures affecting large number of subjects with important implications for poison prevention were reviewed.

**Results:** Pesticide poisoning is common in countries with large rural populations and in rural areas of the developed countries. Banning the use of the most toxic pesticides and limiting the access to other preparations result in a dramatic decline in fatal self-poisoning.

“Similarly, improved packaging of drugs and chemicals and replacing drugs of greater toxicity should reduce the likelihood of severe poisoning in accidental and intentional poisoning.

Chronic arsenic exposure via contaminated drinking water is associated with several types of cancers, adverse pregnancy and developmental outcomes and other health effects. Mitigation strategies are required to minimise the causes and effects of arsenic contamination.

There are rich supplies and growing demand for coral reef fishes. To prevent ciguatera and take prompt actions during outbreaks, risk assessment studies to define their ciguatoxic potential, accurate information on fish species and their sources as well as traceability are required.

Toxicovigilance and networking of poison control centres are also needed to identify poisoning of public health significance and emerging hazards. Toxic preparations that are obtained abroad or via the internet can pose diagnostic and management challenges.

**Conclusions:** There is a lot to learn from the successes and challenges in poison control and prevention in the Asia Pacific Region. Regional collaboration is required to characterise and manage the known and emerging poisoning risks, which may differ between rural and urban populations in different countries. With the diverse sources of toxic exposures and the complexity of the subject, there is an increasing need for expertise in clinical toxicology and a multi-disciplinary approach to toxicological problems.