

**Clinical Management
of Acute Pesticide Intoxication:
Prevention of Suicidal Behaviours**



Management of Mental and Brain Disorders
Department of Mental Health and Substance Abuse

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CONTENTS

Acknowledgements.....	5
Background.....	7
Pesticides most frequently used in accidental/deliberate intoxication.....	9
The management of pesticide poisoned patients at various levels of health care	11
Incorporation of information into practice	14
The way ahead	15
References.....	17
Annex A	20
Annex B	24

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This document is a first edition, presenting the key points to start with in a long-term process towards guidelines on the clinical management of pesticide poisoning. At this stage it is an experts' technical consensus on best practices and setting the scene for more research to fill important gaps in knowledge. It is anticipated that the recommendations in this document will remain valid until 2013 when new research findings should be available to complement and update the current version.

Clinical Management of Acute Pesticide Intoxication: Prevention of Suicidal Behaviours

Background

Intentional self-poisoning with pesticide as a suicidal behaviour came to the attention of the Department of Mental Health and Substance Abuse of the World Health Organization (WHO) in the early years of this decade. The Department then joined with the Department of Violence and Injury Prevention and the International Programme on Chemical Safety of WHO to launch an initiative in 2004 to reduce the global number of deaths from pesticide poisoning entitled The WHO Global Public Health Initiative on the Impact of Pesticides and Health: Preventing Intentional and Unintentional Deaths from Pesticide Poisoning.

The initiative's five aims are to:

- i. Review and recommend improved pesticide regulatory policies.
- ii. Implement sustainable epidemiological surveillance and monitoring of pesticide poisoning in clinical settings and communities.
- iii. Improve the medical management and mental health care of people with pesticide poisoning in health care facilities at different levels.
- iv. Provide training at different sectors and levels.
- v. Develop or strengthen community programmes that minimize risks of intentional and unintentional pesticide poisoning.

Whenever necessary and requested WHO is ready to provide the relevant technical assistance to its Member States in the development or strengthening activities related to those aims. However, it is of particular concern that in relation to pesticides, international organizations and nongovernmental organizations are not dedicating sufficient attention to intentional self-harm, preferring instead to concentrate on unintentional poisoning (accidental or occupational exposure). There is a need to engage their interest also in intentional self-poisoning with pesticides.

The specific purpose of this document is to address the third aim (see iii. above) - improving medical management and mental health care of people with pesticide poisoning in health care facilities at different levels. More particularly, to describe best practices in the clinical management of acute intoxication with pesticides, accidental and intentional, for different levels of staff in the health care system, i.e. primary health care, district hospitals, and specialized units. Since in many countries pesticides are used in a large proportion of deliberate self-harm, the appropriate management of pesticide intoxication can considerably reduce the number of deaths and improve the recovery in cases of non-fatal intoxication.

However, before entering into the subject matter of this document, it is useful to say a few words about the other aims of this initiative.

Pesticides policy

Any actions addressing the impact of pesticides on health should be in principle framed within sound national suicide prevention strategies and pesticide policies, including their implementation at different levels.

Aim i. above includes, more specifically, global efforts towards banning the most toxic pesticides, according to the Hazardous Chemicals and Wastes Conventions, i.e. the Basel, Rotterdam, and Stockholm Conventions (www.basel.int; www.pic.int; www.pops.int; last accessed on 3 April 2008). It is not only crucial for governments to ratify and implement these conventions; they must also work to ensure their enforcement and effectiveness. The effective regulation at the local level is crucial, since ineffective control would result in banned pesticides being provided by the black market with poor quality control and labelling. In addition, efforts need to be made to reduce human toxicity of pesticides used in agriculture.

Regulation of the pesticides used in Sri Lankan agricultural practice has clearly shown that bans of the most toxic pesticides result in a sustained overall reduction in the number of deaths from intentional pesticide poisoning (Gunnell et al., 2007a). Unfortunately, pesticide poisoning due to intentional ingestion has been excluded from the conventions for unclear reasons (Konradsen et al., 2005). However, banning of the most toxic pesticides has clearly reduced the number of significant unintentional poisoning episodes.

Community action for the reduction of risks associated with pesticides

Due a variety of reasons, practical work related to the Pesticides and Health initiative started from the fifth aim (see aim v. mentioned above), on community action to minimize the adverse risks of intentional and unintentional pesticide poisoning, through a safer access to pesticides. Improved storage safety is part of the fifth aim. In May 2006, WHO convened a meeting of experts coming from four regions, that produced the publication

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