Mental and Social Aspects of Health of Populations Exposed to Chemical Weapons: An Overview

This document provides a brief overview of “Mental Health of Populations Exposed to Biological and Chemical Weapons” (WHO, 2005). It provides information for Member States, particularly low-income and middle-income countries, regarding social and mental health consequences of chemical attacks as well as information regarding relevant acute emergency-phase interventions.

The use of chemical weapons is associated with experiences of intense social and psychological distress, especially fear. Exposure to any severe stress – whether natural or human-made – is a risk factor for a range of long-term social and mental problems including anxiety and mood disorders as well as non-pathological trauma and grief reactions. Exposure to chemical attacks may result in social problems (e.g., population displacement, breakdown of community support systems, social stigma associated with contamination), organic mental disorders (e.g., depending on the agent, organic psychosis, delirium, dementia), or, depending on the agent and social context, epidemics of medically unexplained illness.

During the acute emergency phase after an attack involving chemical agents, essential general public health interventions include: (a) rapid identification of the nature, hazards and characteristics of the specific chemical agent; (b) hazard prevention and control procedures (e.g. depending on the agent, incident control, evacuation); (c) protecting responders and health-care workers from physical exposure (e.g., availability and use of personal protective equipment, decontamination procedures); (d) case triage (i.e., initial reception, assessment, and prioritization of casualties); and (e) early physical health care to reduce excess mortality and injury.

The following interventions should be considered:

Early social interventions
- Establish and disseminate an on-going reliable flow of credible information about:
  - the nature of the risk and the exact recommended prevention methods of reducing risk;
  - the availability of medical evaluation and treatment including how and where to obtain them; and
  - information on any other relief efforts, including what each agency is doing and where they are located.
- Use all available channels to communicate these messages.

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1 For information and feedback, email Department of Mental Health and Substance Abuse (vanommerenm@who.int)
• Brief field officers in the areas of health and social welfare regarding issues of fear, grief, disorientation and positive aspects of local people’s participation in the design and implementation of a humanitarian response.
• Set up a system for rapid identification of the location of relatives and friends who may be scattered in various locations due to flight, or evacuation.
• In case of evacuation, facilitate access to communication with absent relatives and friends.
• If appropriate and feasible, set-up internet-based or telephone help-line support systems to reduce the fear and loneliness of people who are isolating themselves to reduce their chances of contamination.
• In case of evacuation, organize shelter with the aim to keep members of families and communities together. Provide recreational and cultural space in the design of shelter facilities.
• If at all realistic, discourage unceremonious disposal of corpses. Bereaved individuals need to have the opportunity to conduct ceremonious end-of-life practices. The ability to obtain death certificates should be organized to avoid unnecessary financial and legal consequences for relatives of the deceased.
• Touching, cleansing and otherwise preparing the dead body may expose those concerned to chemicals if the body is still contaminated. A safe procedure for preparing the body should be agreed with local religious and social leaders, which these community leaders should then be asked to communicate and promote.
• Assuming the activity is safe, encourage:
  ➢ re-establishment of normal cultural and religious events (including mourning rituals) in collaboration with spiritual and religious practitioners;
  ➢ activities that facilitate the inclusion of the bereaved, orphans, widows, widowers, or those without their families into social networks;
  ➢ the organization of normal recreational and educational activities for children, even if initially, it is only possible in limited form; and
  ➢ involve adults and adolescents in concrete, purposeful, common interest activities (e.g., assist in caring for the ill especially if people are cared for at home, constructing/organizing shelter, preparing food).

Early mental health interventions
• Organize rapid dissemination of essential information to health-care personnel regarding differentiation between psychogenic symptoms, and somatic presentations caused by the specific agent. (Information for health care personnel should also include knowledge of mental health side-effects of relevant antidotes.)
• Ensure availability of essential psychotropic medications at all levels of health care. (Some people with urgent psychiatric complaints will have a pre-existing psychiatric disorder.)
• Train health-care workers who conduct triage in the basics of assessing mental and neurological disorders and minimize misdiagnosis and inappropriate treatment.
• Manage medically unexplained symptoms (i.e., when all test results are negative) immediately by validating symptoms in a non-judgmental way, educating patients and avoiding the use of unnecessary medications.
• Manage urgent psychiatric and neurological complaints (e.g., delirium, psychoses, severe depression) within emergency or general health facilities.

• To the extent possible, manage acute distress without medication following the principles of ‘psychological first-aid’ (i.e., listen, convey compassion, assess needs, ensure basic physical needs are met, do not force talking, provide or mobilize company from preferably family or significant others, encourage but do not force social support, protect from further harm).³ Educate people that following the media/television continuously about recent traumatic events is likely unhelpful to their mental health.

• Create *natural* opportunities for individuals to share their concerns and support each other.

• If the acute emergency phase is protracted, begin training and supervising general health workers to build capacity in mental health care.⁴ ⁵

**Conclusion**
A public health approach is advocated to address mental and social health consequences of exposure to chemical weapons. While many of the social and mental health sequelae are similar to those in other emergency situations, acute fear, psychological responses to somatic illnesses and injuries, and long-term development of medically unexplained symptoms are particularly likely. Interventions based on the principles of psychological first-aid, facilitating community-based social support networks, and increasing the capacity for mental health care should be considered.

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⁵ World Health Organization *mhGAP module Assessment and Management of Conditions Specifically Related to Stress*, 2013.  