

International Symposium on Medical Treatment of Chemical Warfare Victims: Challenges and Hopes

OPCW Headquarters, The Hague, 28-29 June 2018.

Introduction

An “International Symposium on Medical Treatment of Chemical Warfare Victims: Challenges and Hopes” was convened at the OPCW headquarters in The Hague on 28-29 June 2018, as a follow-on activity to the decision of the Conference of the States Parties (C-16/DEC.13 dated 2 December 2011) on the establishment of an international support network for victims of chemical weapons. The objective of the Symposium was to consider how the OPCW Technical Secretariat, together with interested States Parties, other relevant international organisations as well as the international medical community could most usefully provide medical support to victims of chemical weapons.

More than 50 experts from various parts of the world attended the symposium which considered many of the challenges associated with providing the best possible medical assistance for victims of chemical weapons, with a special focus on the long-term health effects and the treatment necessary for these conditions.

The symposium provided a forum for the participating scientists, clinicians, chemical weapons experts, academia, and civil society to share experiences and exchange ideas, with a view to identifying priorities for victims’ assistance projects and future scientific research.

The symposium also provided an opportunity for the experts to discuss the latest findings on the long-term health effects caused by exposure to chemical warfare (CW) agents and to identify challenges and gaps in treatment procedures.

It is hoped that the symposium will promote international scientific collaboration to fill gaps in knowledge and treatment in this field, as a means to lead to improved outcomes for victims of chemical weapons. To this end, the symposium participants developed a Declaration containing Recommendations on how the OPCW Technical Secretariat, other relevant International Organizations and interested States Parties can most usefully provide support for victims of chemical weapons.

The following Symposium Declaration is divided into five sections: Establishment of an OPCW Network; Consideration of Short-term effects; Consideration of Long-term effects; Consideration of Psychosocial effects; and Recommendations on how the OPCW and other international organisations, as well as the broader international medical community, for collaboration to address short-term, long-term and psychosocial effects.

Symposium Declaration

Establishment of an OPCW Forum

The Symposium participants recommend that the OPCW contribute to the establishment of an international network of clinicians, scientists, academia and civil society from various parts of the world who are engaged in this type of activity (the **OPCW Network**); this network will provide a forum for the exchange of experiences and ideas about treatment and support of victims of chemical weapons, as well as identifying research needs and encouraging scientific collaboration in these areas of research.

Short-term effects of exposure to chemical weapons

The Symposium participants recommend that the **OPCW Network** be used, *inter alia*, to:

- Discuss effective, evidence-based treatments for the care of victims of chemical weapons suffering short-term health effects;
- Identify challenges in the medical treatment of victims suffering short-term health effects, including what additional support is needed (i.e. where are the gaps?)

In the course of this Symposium, participants identified significant gaps and recommend the following:

- Form an OPCW clinical experts network to provide advice on emergency management of casualties in the short-term if requested by the OPCW Technical Secretariat or States Parties;
- Provide education and training to staff employed in emergency services and critical care units which might be overwhelmed by treatment of victims of either CW agents or toxic industrial chemicals;
- Develop diagnostic and treatment protocols for emergency services for use in the treatment of particular groups, including children and the elderly;
- Ensure, to the extent possible, the availability of antidotes and other medical treatments which may be needed to provide additional supplies in a crisis through collaboration with other international organisations (such as the WHO and ICRC);
- Consider funding research projects, such as those designed, for instance, to enable a better understanding of the action mechanism of Sulphur Mustard – several toxic mechanisms have been proposed: are they all relevant? (N.B. the results of this research will also help to provide a better understanding of some of the long-term effects of exposure to Sulphur Mustard);
- Provide on-line training courses to medical and nursing staff on the treatment of casualties. These courses could include lectures, videos, on-line simulation scenarios, case scenarios/case reports, Multiple Choice Questions (MCQs) / short quizzes;
- Organise regular local training for healthcare professionals who are located in areas which may be vulnerable to the use of chemical weapons. This will require

considerable resources. However, it may be done in collaboration with other relevant international organisations and NGOs including those organising educational courses. The training provided should encompass a differential diagnosis and toxidromes caused by exposure to the various traditional CW agents and other toxic chemicals;

- Regrettably there are serious gaps in the data available on the effects of exposure based on the severity, duration, and timing of exposure to different CW agents. A database of CW agents (which could become an ‘on-line chemical weapons registry’) containing information on the effects of exposure to different type of agents, including the effects of intensity, duration, and timing of exposure would be very helpful in the management of victims. This registry might include validated data on both the locations where that attacks took place, and information on symptoms suffered by the victims. This registry would have a number of applications including: providing confirmatory evidence of exposure should that subsequently be required by the victims; being used as a resource for treating physicians dealing with the health consequences of casualties; and if suitably anonymised, the records could also be a valuable resource for researchers investigating various aspects of both the short- and long-term effects following exposure to different CW agents.

Long-term effects of exposure to chemical weapons

The Symposium participants recommend that the **OPCW Network** be used, *inter alia*, to:

- Share experiences based on the management of the long-term health effects of exposure, including through discussion of the latest findings on these health effects;
- Discuss novel treatments (including evidence of their effectiveness) for the care of victims;
- Identify challenges in the medical treatment of victims and what other treatment is needed (i.e. where are the gaps?);
- Raise awareness about the care needed for those suffering from chronic effects; and
- Increase the awareness within communities of the challenges faced by victims.

In the course of the Symposium, participants identified the following gaps and recommend the following:

- The relevant International organizations including the WHO and the OPCW as well as the interested governments to give priority to and provide financial support to research projects on the treatment for the long-term health effects through its international cooperation program;
- The OPCW to continue to produce publications on the medical treatment for victims, as a resource for clinicians and other medical support personnel;

- Encourage researchers to perform well-designed epidemiological studies on the frequency, distribution, and determinants of health disorders in defined populations of chemical weapons victims (including victims and their families);
- The development of research protocols with specific diagnostic procedures and tests to be conducted in a timely manner on victims. These tests might specify how often to invite victims for check-ups and identify what procedures and tests are necessary;
- Establish a biobank of samples to be available for future collaborative studies to investigate the long-term toxic mechanisms of agents such as Sulphur Mustard. The 'biobank' would be a resource for the likes of genomic DNA, cellular RNA, tissue samples etc. Suitable informed consent procedures would need to be followed for such a resource;
- Provide training for local specialist needs to be conducted on the ground (for example, Kurdistan-Iraq);
- Provide financial support for victim assistance projects conducted by NGOs;
- Interested governments Should establish rehabilitation centres for the victims of chemical weapons, especially in areas where few centres currently exist, and develop protocols for rehabilitation;
- Develop and / or share clinical guidelines on the medical treatment of the long-term health effects;
- Establish telemedicine facilities to help local healthcare professionals with their clinical care plans for patients;
- The OPCW to retain and provide data as appropriate on where and when chemical weapons were used, to assist in establishing where exposure occurred. This resource will assist researchers investigating long-term effects and help establish causality;
- Provision and access to good quality and affordable medication for all CW victims including those suffering from long-term health effects.

Psychosocial effects of exposure to chemical weapons:

The Symposium participants recognised that there are both short-term and long-term psychosocial effects resulting from exposure to CW agents, and recommend that the **OPCW Network** be used to study these psychosocial effects.

In the course of this Symposium, participants noted that many CW victims suffer from a range of psychological problems including post-traumatic stress disorder (PTSD); chronic depression; loss of libido; anxiety; personality disorders; disorders of consciousness, attention, emotion, behaviour, thought process and memory; lack of interest in social activities; loss of confidence; paranoia and nervousness. In view of this, the symposium participants recommended the following:

- Regular psychological screening and routine check-ups to evaluate the severity of disorders and response to treatment;
- Develop robust follow-up protocols for exposed victims (men / women / children) to assist them in the following areas: relationships (e.g. with family or friends); when/

if at work or studying; their general physical and mental recovery; and how needs change over time; parallel studies are also needed on the problems faced by family members of those exposed as they too have to adjust to living with traumatised individuals;

- Raise awareness within the families of victims of the problems faced by the victims when they are re-integrating into their families and networks (including due to trauma and stigmatisation);
- Collaboration with multispecialised medical teams (including psychologists) in the assessment and management of CW victims;
- Recognise that stigmatisation is a considerable problem for those exposed to chemical weapons, with casualties being labelled as “victims” in society and perceived as a burden (e.g. sometimes unable to work). There is also stigmatisation of people seeking psychological support;
- Conduct population studies on the long-term psychological problems for those only exposed to nerve agents in the field;
- Recognise the need for robust tools for assessing the effectiveness of treatment for PTSD and other psychosocial disorders, and the establishment of accurate registers of those affected to ensure the provision of the most appropriate treatment when needed in the future. (N.B. Symposium participants agreed that a one-off intervention is rarely going to suffice);
- Broaden the focus from just the physical needs of victims to their mental health needs, which are just as important.

Recommendations for Scientific Collaboration:

The Symposium participants recognised the benefits of close collaboration between the OPCW and other international organisations, as well as the broader international medical community, in supporting victims of chemical weapons.

The Symposium participants recommend that the **OPCW Network** be used as a means to create a platform for building an international network for scientific collaboration.

The Symposium participants recommend that the **OPCW Network** be used, *inter alia*, to:

- Identify priorities for victims’ assistance projects and future scientific research in this field;
- Promote international scientific collaboration to expand knowledge of the long-term effects and improve outcomes for victims of chemical weapons; and
- Develop a road map for future research on treatment of long-term health effects caused by exposure to chemical weapons.

In the course of this Symposium, participants identified the following priority areas for scientific collaboration to enable:

- Sharing experiences based on the management of the long-term health effects of exposure to CW agents, including through discussion of the latest findings on these health effects ranging, for example, from symptomatic treatment through new therapeutic agents;
- Discussion of novel treatments for the care of victims of chemical weapons suffering long-term effects, including evidence of their effectiveness, and in collaboration with relevant institutions and organisations (such as WHO and the broader scientific community);
- More laboratory-based research which, at present, is funded by national governments. The OPCW and other relevant organisations should provide funding to promote regular collaborative research, for example through OPCW Fellowships or PhD studentships. Such OPCW funded work might involve multiple members of the OPCW network and include regular meetings to discuss progress;
- Collecting data on the recently increasing number of CW victims (for example, in the Middle East);
- Strengthening cooperation between university researchers and organisations working in the field: the OPCW could play a significant role as a driving force for facilitating such collaborations and partnerships;
- Combining experiences and research of both the medical and psychosocial fields;
- Conducting studies on the persistent effects of CW agents on the environment; especially on soil, plant and animal species in affected areas;
- The OPCW to invest in joint projects at the international level in “involved countries”;
- Provision of support for rehabilitation projects for physical, psycho-social impacts of CW and to help victims to return back to normal life;
- Telemedicine to play a more important role in timely and prompt delivery of health services in both the acute and long-term treatment of victims;
- Collaborative studies of risk reduction and crisis management (Prevention) and disarmament;
- Regular collaborative meetings/discussions on current/future research;
- Establishing a register to assist cooperation and communication between experts in the field;
- To continue organising international conferences/meetings to discuss challenges and outcomes for the treatment of CW victims.