DRAFT

HUMAN HEALTH AND CHEMICAL ACCIDENTS

CHECKLIST FOR ACTION

NOTE: This Checklist is intended for use by anyone in the health care sector who has managerial responsibility for prevention, preparedness and response in relation to chemical emergencies.

1. HEALTH SECTOR INFORMATION AND COMMUNICATION NEEDS

1.1 Have information needs been considered, planned for and tested as part of the emergency planning process, i.e. in advance of an emergency actually occurring?

1.2 Has contact been established with your national Chemical Emergency Response Centre, if any, or Poisons Information Centre, if any? Otherwise, do you know where to contact to get immediate expert advise? (NB the "International Directory of Emergency Response Centres", 1991, published jointly by OECD and UNEP - SEE List of References.)

1.3 Is everyone who needs to know aware of the UN Substances Identification Numbers and Hazard Classification, together with their importance at storage facilities and reprocessing plants and during transport of chemicals?

1.4 Has all available and relevant information, e.g. Material Safety Data Sheets, been sought from product manufacturers? Has this been analysed for all information relevant to first aid, treatment and follow-up measures?

1.5 Has consideration been given to the use of commercially available computerised data and modelling systems? If so, has a full understanding of their strength and weaknesses been developed by all relevant personnel?

2. THE ORGANISATION AND PLANNING OF HEALTH SECTOR RESPONSE TO CHEMICAL ACCIDENTS

Organisation

2.1 Does a co-ordinated Emergency Plan exist for the area Is there a health sector Major Accident Plan and does this mesh with the emergency plans of other services (e.g. local government, civil defence, emergency rescue services, etc.)? Does it take account of the possibility of large-scale chemical accidents and their special requirements (e.g. the need to have a record of those medical practitioners in the area with experience in toxicology and intensive care)? Does it link with the activities of national Chemical Emergency Centres and/or Poisons Information Centres, where these exist?

2.2 Are local health authorities aware which authority has responsibility for co-ordinating overall on-site and off-site awareness and prepredness plans (e.g. local government or civil defence)? Are they plaing their part in a local awareness and preparedness programme (e.g. APELL programme or similar)?

2.3 Have contacts been established with armed forces medical services in connection with chemical emergency awareness, preparedness and response?

2.4 Are local health authorities contributing to the process of identify ing and evaluating hazards in the local community? If necessaryn are they taking the initiative in this process? Have they actively sought information from industry on any chemical hazards?

Major Accident Plans and Chemical Emergencies

2.5 Have the chain of command and lines of communication in case of a chemical accident been put in place in advance of an accident, as part of the planning process? Has the possibility been considered of creating a co-ordinating team or command group to be located at the perimeter of the accident site?

2.6 Has a system, e.g. a pro forma, been developed to help the officer in charge at the site of the accident to obtain all relevant details for communication to local emergency control or national expert centres? Is there a checklist for use by emergency telephone operators, in particular about how to get the maximum possible information from the original informant?

2.7 Do plans provide for adequate physical means of communicatio — radio, telephone, telefax, pager, short-wave radio, any combination suitable to local circumstances? Will it be possible to communicate directly between the accident site and che Chemical Emergency Centre/Poisons Information Centre, if any? Will it be possible to communicate directly with medical professionals at the receiving facility?

2.8 Do plans provide for information, e.g. on relevant medical treatment and local medical resources, to be available to first responders as they arrive at the scene of the accident?

2.9 Do plans provide for the determination of the accident area and of the area for dealing with exposed patients at the receiving facility, so that contamination of health sector personnel can be avoided?

2.10 Do plans provide for the registration of workers in the accident area and the maintenance of communication with them, so that they can be monitored for any signs of distress?

2.11 Has provision been made with Burns Units and Intensive Care Units in other hospitals to take patients, in the event of an accident which may have large numbers of victims needing specialised treatments?

2.12 Are there adequate arrangements for the reception and registration of large numbers of patients, some of whom may still be in need of decontamination?

2.13 Have plans been made to handle communication with the media and the public at the time of an accident?

2.14 Do plans provide for a "winding-down" procedure, so that the with drawal of various groups of personnel can be co-ordinated?

Emergency Equipment, Medicines and Antidotes and Protection of Rescue Workers and Medical Personnel

2.15 Have the drugs (including antidotes), medical equipment and protective clothing for health care personnel likely to be required in the event of an accident been provided?

Has consideration been given to the best place to store them? Are their availability and condition checked regularly and frequently?

Accident Follow-up and Evaluation

2.16 Are there plans for investigation of the accident and for collection of data on accidents and "near-misses", for the purposes of analysis, corrective action and improved training? Are local health authorities and health professionals contributingh adequately to this process?

Medicine and Emergency Equipment

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3. THE ROLE OF THE HEALTH SECTOR IN RESPONDING TO CHEMICAL ACCIDENTS

First Actions

3.1 Do plans provide for initial care by health care professionals at the accident site?

3.2 Do planning and training draw attention to the need to set priorities, according to the nature and extent of the accident, between life-saving first aid, commencement of antidotal therapy ad decontamination?

3.3 Do plans provide for the setting up of decontamination stations at the site of the accident, for adequate supplies of warm water for decontamination and the availability of clothes and blankets for those whose contaminated clothing has had to be removed?

3.4 Do plans provide for the setting up of temporary treatment stations in cases where it may not be possible to transport the victims to hospital for some time? Have alternative transport routes been identified in cases where the usual transport route to the hospital lies within the accident area? Do the hospital's plans include preparedness measures in the case that the hospital is itself within the accident area (e.g. shutting off ventilation systems)?

3.5 Do vehicles for the transport of victims to hospitals or other receiving facilities have suitable equipment, e.g. ventilators and equipment for eye irritation?

3.6 Does the hospital have adequate provision for on-site decontamination stations?

3.7 Are Poison Information Center protocols available at the hospital or other receiving facility, to ensure consistent treatment of similarly affected patients?

3.8 Have plans been made for the taking and recording of samples from patients?

3.9 Does the hospital have an inventory of ventilators? Does it know where to obtain additional equipment and trained personnel quickly or, alternatively, where to transfer patents to receive this treatment?

3.10 Do existing Major Accident Plans contain provision for treatment of large numbers of patients with thermal burns, which can be activated in the case of a chemical accident producing victims with this type of injury?

3.11 Have plans been made to set an observation units, e.g. in schools or hotels, over a period of several days?

Psychological and Psychiatric Reactions

3.12 Do plans include:

- identification of groups at risk for stress reactions
- assessment of information available to the public and of networks through which it is likely to pass
- provision for immediate monitoring of stress reactions
- provision for informing the public at different stages of the emergency, including through a telephone information service?

3.13 Do plans provide for inclusion in the emergency medical team of a psychiatrist and/or a psychologist?

3.14 Does provision exist for treating cases of stress syndrome, preferably through existing mental health services?

Accident Follow-Up

3.15 In addition to samples from individuals (see 3.8 above), do plans provide for the taking of environmental samples?

3.16 Has consideration been given to the planning of epidemiological studies?

3.17 Has there been communication with local veterinarians on the use of animals as "sentinels" for human disasters?

3.18 Has consideration been given to the follow-up of those who have been exposed but do not have symptoms and therefore do not necessarily present as casualties?

4. TRAINING AND EDUCATION

4.1 Is there in your community a programme of public education and training in what to do in the event of a chemical emergency? Are you doing all you can to encourage industry to accept responsibility for organising this? Are local health personnel contributing fully to these activities?

4.2 Are members of the health professions available to advise and assist occupational health and safety specialists or industry management with incorporating information on emergency situations into health and safety training of workers?

4.3 Are members of the health professions available to advise and assist rescue services managers in the initial training and regular in-service education of rescue service staff?

4.4 Are regular in-service programmes arranged to keep health professionals' knowledge up-to-date in this area and to supply specific information on local emergency procedures?

4.5 Are all those health professionals with specific responsibilities in chemical emergency response receiving joint theoretical and practical education in the use and implementation of jointly agreed emergency response plans? Does this training cover information gathering and local emergency information systems? Have the medical aspects of on-site and off-site plans been tested under simulated conditions? Have the results of such tests been evaluated and disseminated? Are the lessons learnt from these evaluations fed back into the training process?