CARRA-NET – Chemical and Radiological Risk Assessment Network

ECHEMNET - project on European Chemical Emergency Network.

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Public Health England
Overarching objectives

• To improve hazard identification, risk assessment, risk mitigation and risk communication of emerging cross border chemical public health threats.

• To support the implementation of EU Decision 1082/2013/EU & International Health Regulations.
Acknowledgements

European Chemical Emergency Network (ECHEMNET) Group

Rob Orford, Charlotte Hague, Mark Griffiths, Herbert Desel, Andreas Schaper, Lisbeth Hall, Sally Hoffer, Marjolein Groot, Cisca Stom, Ann Goransson Nyberg, Per Leffler, Elisabeth Wigenstam, Agneta Plamboeck, Jiri Trnka, María del Carmen García Cazalilla, Manuel González Guzmán, Jesus Ocaña García-Donas, Jose Javier García del Aguila, Raquel Duarte-Davidson
Facilitate **mutual sharing of information** on the impact on public health caused by chemical (and radio-nuclear) acute events

Build on existing expertise to provide **rapid and appropriate evidence-based assessments** to National Authorities responsible for protecting the health of citizens following cross border incidents

**Consolidate risk assessment networks** for chemicals and radioactive threats and risks

Create a database of MS correspondents to implement threat assessment activities following such events
• **Develop** Standard Operational Procedures (SOPs), protocols, criteria and guidelines to:
  - trigger the threat assessment in case of an incident
  - share information within the appropriate Public Health Authority Network
  - trigger the risk management process by activating the appropriate authorities
• Consolidate existing guidance documents and procedures for coordinated risk assessment and management of cross-border incidents

• Engage with end-users and stakeholders to ensure the guidance documents and network are robust and fit-for-purpose.

• Further develop a sustainable network of public health risk assessors to respond to emerging cross-border incidents.

• Produce and test worked examples of potential chemical threats via the network of assessors
1. Where an alert is notified pursuant to Article 9, the Commission shall, where necessary for the coordination of the response at Union level and upon request of the HSC referred to in Article 17 or on its own initiative, make promptly available to the national competent authorities and to the HSC, through the EWRS, a risk assessment of the potential severity of the threat to public health, including possible public health measures. That risk assessment shall be carried out by: ECDC, EFSA etc...

2. Where the risk assessment needed is totally or partially outside the mandates of the agencies referred to in paragraph 1, and it is considered necessary for the coordination of the response at Union level, the Commission shall, upon request of the HSC or its own initiative, provide an ad hoc risk assessment.
Rapid Risk Assessment of emerging chemical threats

1. Releases to air or land from industrial or natural incidents
2. Releases to water courses and water supplies
3. Contamination of food and drink
4. Contamination of consumer goods
Rapid Risk Assessment of emerging chemical threats

- Tested in CELESTE Quicksilver exercises
Rapid Risk Assessment of emerging chemical threats

Summary risk assessment (from below)

- Estimates of consequences: Severe
- Level of overall risk: **Very high risk**
- Level of confidence in risk assessment: High confidence

This risk assessment is based on the identity of the agent released and the exposure scenarios. There is some uncertainty about the duration of the release and if any other chemicals are involved. Air sampling data and predicted weather patterns is not yet available so there is some uncertainty about continued exposure levels. Further information on local resources, weather conditions and contamination of drinking water, agricultural land and livestock is required. There is currently no information on the local population or those in the path of the chemical plume (e.g. sensitive populations, social deprivation). Environmental recovery and decontamination options should also be explored.

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<thead>
<tr>
<th>Requested by:</th>
<th>Date of request</th>
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<tbody>
<tr>
<td>European Commission</td>
<td>24/09/2014</td>
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Why was the RRA requested, including critical questions?

- To evaluate the risk to public health.
  - What are the immediate and longer term public health risks associated with exposure to TDI?
  - What advice can be given to reduce the risk of further exposure?

Rapid health risk assessment working group:

- Reiterate based on feedback from Quicksilver, SANCO, ECDC, WHO, EFSA.
- Test in ECHEMNET 2015 exercises.
EU Scientific Committees

Statement by the Commission

• Where a risk assessment concerning a serious cross border threat to health falls outside the mandates of the agencies of the Union, the Commission undertakes obtaining such a risk assessment by means of expert groups.

• The Commission will, as a priority, have recourse to the Scientific Committees established by Commission Decision 2008/721/EC of 5 August 2008 setting up an advisory structure of Scientific Committees and experts in the field of consumer safety, public health and the environment and repealing Decision 2004/210/EC.

2011/0421 (COD)
Expert groups: The ECHEMNET

• Merging of expert groups from existing expert groups to support the SCHER Committees:
  – CERACI
  – MASH
  – ASHT
  – CARRANET

• Defining what is an expert for cross border chemical health threats.

• Recruiting experts to the network.
Skills Framework

Is this you???
Contact: ECHEMNET@phe.gov.uk
Supporting guidance

• Guidance for
  – National Risk Assessors
    • When should an event be notified?
    • What types of events should be notified?
    • Who should I notify?
  – Operating RASCHEM
  – Nominating RASCHEM users
## Supporting guidance

<table>
<thead>
<tr>
<th>Level 1: Information only</th>
<th>Background information only. Poison centre information only</th>
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<tbody>
<tr>
<td><strong>Enquiry without exposure. Important information without exposure</strong></td>
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<tr>
<td><strong>Unusual event or case, where there is a low level of suspicion about release of a toxic chemical</strong></td>
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<thead>
<tr>
<th>Level 2: Nationally significant</th>
<th>Event with exposure. Unusual features of poisoning - with no known cause. Suspected release of chemical(s) with potential for suspected or confirmed mass intoxication. Serious or significant public health impact</th>
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<tr>
<td><strong>Several patients reporting to an emergency department(s) displaying symptoms of underlying toxic contamination with no known explanation for the reported illness.</strong></td>
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<tr>
<th>Level 3: Internationally significant</th>
<th>Cross border/international public health threat. Unusual event of international public health concern</th>
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<tr>
<td><strong>a chemical incident where the public health impact is severe/catastrophic and requires central direction from the National Public Health Authority/ government and support from neighbouring Member States (e.g. where the regional/national stock of antidotes, inhibitors or chelators is unavailable, absent, or ineffective).</strong></td>
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<tr>
<th><strong>Escalate to EC and WHO</strong></th>
<th>An event which has been recognised as a public health emergency of international concern and has been notified to the IHR focal point.</th>
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<tr>
<td><strong>Significant scope for international coordination/cooperation.</strong></td>
<td>The incident may have crossed national boundaries (e.g. as shown by monitoring results from neighbouring countries indicating cross boundary impacts) or other related occurrences are reported in more than one country, and it meets the criteria in Decision 1082/13/EU Articles 2 and 9(1)(2).</td>
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<td><strong>Significant risk for international spread</strong></td>
<td><strong>Events may include volcanic eruptions, large tsunamis etc where chemical installations may be at risk or there is widespread risk from air pollution.</strong></td>
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<tr>
<td><strong>Terrorist threat operating at national level.</strong></td>
<td><strong>Natural disasters with public health implications. Civil unrest and disruption. Economic disruption. Unusual event - Public health concern. Potential health threat. Event relevant for health security activities.</strong></td>
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Future.....

There is a need to find a mechanism for:

I. Full roll-out and training on RASCHEM
II. Training and support for assessing risks at national level from emerging chemical threats
III. Maintenance of Event & Indicator Based Surveillance and RASCHEM moderation
IV. Development of resources for EU MSs and EC
V. Development and maintenance of codes and terms that are used to record exposures
VI. Development of enhanced cross-sectoral operation and exchange for chemical health threats