Acute Chemical Incidents – Basic checklist

1. Questions to Ask the Notifying Organisation
2. Recommendations for acute phase response
3. Recommendations for incident investigation (post-acute phase response)
4. Post incident questions for public health

1. Questions to ask the notifying organisation
For all chemical incidents request a brief summary of what is known NOW about the chemical incident.

- What has happened? Is it a fire, explosion, spill, leak, etc?
- Where & when did it happen?
- What media has it affected? e.g. air, water, land, food
- What is the source of contamination? Could it be a deliberate release?
  - Consider establishing a JHAC for deliberate releases
  - Has the contaminant been safely contained or removed?
- What is known about the contaminating substance?
  - specific name(s)
  - composition
  - concentrations

You may need the following additional information:
- Have any adverse health effects been reported following exposure or have there been any complaints?
  - What symptoms have been reported? (May have been reported to local authority, GPs, A & E departments, water utility etc.)
- How many people have actually &/or potentially been exposed & to what contaminant concentrations?
  - Has the Ambulance Service been alerted? Have they received any casualties?
  - Have local hospitals been alerted? Have they received any casualties?
  - Do A&E departments have adequate PPE & decontamination facilities?
  - Do A&E departments have appropriate antidotes & an adequate supply?

*Key: √ = Yes    X = No    ? = Information awaited    NA= Not applicable

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2. Recommendations for acute phase response

Information to obtain/confirm from other agencies

- Ensure appropriate agencies are taking steps to prevent further contamination
- Ensure access to affected area is restricted to minimise exposure
- Ensure relevant Local Authority, Environment Agency & water company (if appropriate) personnel are informed; take contact details
- Establish clear lines of responsibility & communication
- Establish whether any environmental samples been taken?
  - What sampling strategy has been used, e.g. sampling frequency, priority analyses? (if possible identify peaks & troughs in the analytical results)
- Consider convening a multi-agency incident control meeting
- Consider issuing a press release to local press & media – remember to have alternative versions in appropriate language

Action to protect the health of the public:

- Alert DCHP as soon as you are aware of the incident; pass on as many details as possible
- Define affected population, & monitor symptoms & disease levels – mark on a map or geographical information system
  - Are any additional populations at risk?
  - Have appropriate actions to protect public health been taken?
    - consider sheltering (‘go in, stay in, tune in’) versus evacuation (consider & advise on risks of evacuation)
- Review potential adverse health effects of the chemical & methods of control
- Provide information to the public as needed
- Consider setting up a help line to provide assistance
- Consider referring to health emergency plan & ensure key staff members are notified
- Consider alerting GPs, NHS Direct, NHS & private hospitals, neighbouring CCDC & other medical professionals
- Consider informing Food Standards Agency/DEFRA if there is a threat to food or agriculture
- Consider informing the Regional Director of Public Health (RDPH), or the Regional Epidemiologist (RE).
### 3. Recommendations for incident investigation (post-acute phase response) - Information to obtain/confirm from other agencies

- **Confirm that the chemical hazard initially identified is the actual chemical hazard**
- **Identify source-pathway-receptor linkages**
  - Is there an aquifer used for drinking water abstraction?
  - Are there plastic water supply pipes?
  - Is there a river or stream used for recreational purposes?
  - Is the land used to grow food?
  - Are there other contaminant transport pathways?
- **Obtain notification for each organisation involved on when incident is declared over and when they are standing down**
- **Obtain updates on incident evolution and any secondary contamination**
- **Undertake detailed site assessment**
  - collect maps and plans of the area
  - establish topography and direction of groundwater flow
  - collect further environmental samples
  - compare any measured concentrations with regulatory standards and any past sample results, e.g. from routine sampling
- **Obtain any plume modelling (real time or after event) data**

### Action to protect the health of the public:

- **Re-evaluate incident category**
- **Ensure appropriate remedial action has been undertaken to remove source of contamination or exposure pathway**
  - once confirmed, no further action required
  - go to ‘post incident questions’
- **Consider conducting a site visit**
- **Undertake further assessment of health impact**
  - consider whether biological sampling of sentinel cases and other exposed individuals is necessary
  - consider carrying out a questionnaire survey of all those exposed to identify any adverse health effects
  - if necessary, initiate a case control study to assess health impacts
  - consider long-term follow up and monitoring of the exposed population
### 4. Post incident questions for public health

- Has the incident been declared over for each organisation involved and are they standing down?
  - Have all those affected been informed of the end of the incident?
  - Have all those involved in incident management been advised of event close?
- Have all those with adverse health effects fully recovered?
  - Do any patients need long term follow up?
  - Consider longer-term epidemiological surveillance
- Are all records of the incident complete & up to date?
- Conduct an audit of the management of the incident
  - Identify lessons learnt
  - Identify necessary modifications to emergency and/or incident plans
- Provide final media briefing with details of how incident has been managed, any remaining adverse health impact & any preventative actions to be taken.