Communicating and Health Monitoring Following the Salisbury Nerve Agent Attack

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The National Academies of Sciences, Engineering, and Medicine
March 12-13 2019
Washington, DC
The Importance of Effective Communication

- Public responses can impact the effectiveness of our emergency response plans and procedures.
  - 1995 Tokyo Sarin attacks (500 injured, 7 dead, 5,510 psychological casualties)
  - Radioactive incident in Goiania, Brazil (1987)
    - 112,000 sought examination/Reality = 4 deaths/260 contaminations
  - More recently: Low uptake of positive health behaviours in response to Swine Flu (2009), Litvenenko (2006), and more.

- The success of government interventions before, during, and after an extreme event relies on the cooperation of the public.
  (Becker, 2004; Gray & Ropeik, 2002; Henderson et al., 2004; Rubin et al., 2007; Sheppard et al., 2006; Vonderford, 2004; Wray & Jupka, 2004,)
Previous Experience: The Poisoning of Alexander Litvinenko in November 2006

- The spread of contamination “(...)Provided the public health community with a scenario approximating a large-scale RDD event” (Nemhauser, 2010, p. 356).
- The HPA generated strict criteria to identify likelihood of contamination. Laboratory screening was made available for those identified as more likely to have been contaminated.
- Rubin et al. (2007) studied public perceptions of the risk to health and information needs of 1000 cross-sectional survey participants and 86 potentially exposed members of the public (interviews).
Previous Experience: The Poisoning of Alexander Litvinenko in November 2006 (Rubin et al., 2007)

- The general public response was muted (11.7% of the survey sample perceived their health to be at risk).

- Qualitative interviews took place across four groups of potentially exposed members of the public:
  1) People in the sushi restaurant on 1\textsuperscript{st} November who had contacted NHS direct.
  People in the hotel bar between 31\textsuperscript{st} October and 2\textsuperscript{nd} November who had:
   2) accepted the offer of urine testing;
   3) refused the offer of urine testing; or
   4) failed to reply to the HPA after being told that they were eligible for testing.

- Potentially exposed participants were generally satisfied, though they desired more information about personal risk of exposure, urine test outcomes, and long-term health implications.

- No risk to health if not in contaminated areas (71%)
- Espionage vs terrorism
### Salisbury (4th March 2018):
- Sergei Skripal and his daughter Yulia Skripal were poisoned with a nerve agent known as Novichok (A-234).
- D.S. Bailey admitted to Salisbury District Hospital. A 4th individual was monitored as an outpatient.
- All three patients were eventually discharged.
- 65 individuals presented at NHS hospitals for advice about the incident. All were assessed and discharged.

### Amesbury (30th June 2018):
- Dawn Sturgess and Charlie Rowley were admitted to Salisbury district hospital.
- Initially treated for the effects of drug overdoes. Subsequently treated for nerve agent exposure.
- Dawn Sturgess died on 8th July. Charlie Rowley was discharged on 20th July.
- 29 people presented at the Salisbury Foundation Trust hospital for advice in relation to the incident. All were assessed and discharged.
Public Health Concerns (Gent, 2019):

**Public Health Concerns:**
- What constitutes public risk?
- Who is at risk?
- Where might risks exist?
- What type of risk might be present?

- Transferability of agent
- Bioavailability of agent
- Quantity of agent likely to give risk of harm

- Potential contamination of public transport systems (Aeroflot flights, London Underground, buses, trains, transit links)
- Contamination of the hotel room used by the suspects (guest and hotel staff)
- Any as yet undiscovered PPE or devices

- Acute injury
- Short-term/one-off low-level contact
- Long-term effects
Health Surveillance (Gent, 2019):

- High levels of confidence in the toxicology led to the decision not to have follow-up for the affected population.

- 3 x Important principles for assessing risk:
  - This material does not transfer easily in quantities that cause acute illness.
  - There are no long-term health risks from short-term or one-off contact with low-levels of this agent.
  - No overt illness after exposure = not at risk of long-term health problems.

- Probability of contact was low but consequence is high.

- Public messaging balance between improbability of contact and concern about abandoned material.
Variations in Official and Media Communication:

Amesbury nerve agent incident: Answering your frequently asked questions

Blog Editor, 6 July 2018 - Health Protection

We understand that the recent incidents in Amesbury and Salisbury involving nerve agent Novichok will cause concern about possible health risks. This blog will answer the questions we are getting asked the most and provide you with our most up-to-date advice.

Our full statement and precautionary advice for people who live in, have visited or will visit the areas affected can be found online here and will be continually monitored and updated when necessary.
Conclusions:

• Public health communication from each incident addressed many of the concerns of potentially affected populations, though there are areas for improvement.

• Lags in sharing specific, targeted health advice with the public at the start of each event need to be addressed.

• The development of effective pre-event communication enables response organisations to communicate about public health impacts and monitoring procedures while further assessment takes place.

• Public health communication throughout the lifecycle of the events can also be targeted to:
  • Provide reassurance but not at cost of detailed, actionable guidance
  • Provide guidance via multiple modes of communication
  • Be explicit about protective behaviours AND behaviours to avoid
  • Take into consideration perceived response costs associated with following advice (Pearce et al., 2012; Rogers & Pearce, 2013):).
Evidence-based Tools and Reports for Practitioners:

Responding to emergencies involving chemical, biological, radiological and nuclear (CBRN) hazards

Information for emergency responders about public responses to CBRN Incidents

Responding to emergencies involving chemical, biological, radiological and nuclear (CBRN) hazards

Information for members of the public
For more info...
Thank you!

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