## Scenario 1-C: Improvised laboratory in apartment

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| **Scenario 1-C: Improvised laboratory in apartment** | |
| **Complexity of the scenario: moderate** | |
| **Possible application of the scenario: Topics 4.1, 5.1, 5.2, 5.6 and 6.1** | |
| **Scenario description:** | |
| An emergency call is made by a man who reports that his neighbour is lying on the floor of their apartment, he is having seizures and seems almost unconscious. The caller has rarely met his neighbour since he moved into the same building a few months ago. The man could see the scene because the front door of the neighbour’s apartment is half opened, maybe because the victim tried to open the door and go outside before falling on the floor.  The man on the phone simply called for an ambulance and, while he is on the phone with the dispatch officer, started to have some symptoms (headache).  When the ambulance service arrived on the spot, the only thing the FRs see at first is the half-opened door, the man with seizures and a lot of laboratory equipment for chemical reactions. To look more closely, the apartment is filled with laboratory glassware, camp stoves, containers, etc. The FRs from the ambulance service start rescuing the victim and, after a while, the symptoms experienced by the neighbour that called the ambulance worsen (headache) while he has been standing by the door since he discovered the victim. While taking care of the man, one of the first responders also starts to feel ill.  **Things to consider:**  The ambulance service arrives on the spot after an emergency call by the neighbour of the victim, they are assumed to be the ones who have also opened the main entrance door to the building on the arrival of the FRs. The front door of the apartment was already half-opened at the arrival of the FRs, maybe an attempt of the victim inside the house to run outside before falling to the floor with seizures.  After the first assessment, one member of the first responders’ team and the neighbour starts to feel a headache and start to show symptoms of intoxication (headache, dizziness, sweating, nausea, etc.).  The agent involved in this scenario is Sarin, which is an odorless, volatile substance. Sarin is interesting since the scenario can be compared with the ‘Tokyo sarin attack’ (Japan, 1995) and the ‘Matsumoto sarin attack’ (Japan, 1994). More information on exposure of healthcare workers, both at the scene and at the hospital can be found in the references. At the moment of the first intervention, there are no indications on the substance involved.  Sarin is odourless (if pure). It could be interesting to see if the trainees are able to recognize the ‘cholinergic syndrome’ caused by the agent.  In the scenario, the neighbour was alarmed by seeing a person lying on the floor in the doorway but while calling for help, stays in the vicinity because he does not have any indication of a toxic chemical release due to the lack of strange odours.  The trainer should inform the trainees that conventional triage methodology is applied in this scenario. However, when the number of victims is low, such as in this case, FRs would treat each victim immediately without a real need for triage. Therefore, conventional triage is part of this scenario discussion for the sole purpose of exercising and reviewing triage methodologies.  ***The following can be released to the trainees if they need additional information***:  At a first look the first responders spot the following:   * Laboratory equipment * Some bins with handwritten labels * A computer * Three mobile phones.   References:  Ronald De Groot, Gerard A. Van Zoelen, Marianne E. C. Leenders, Antoinette J. H. P. Van Riel, Irma De Vries & Dylan W. De Lange (2021), *Is secondary chemical exposure of hospital personnel of clinical importance?,* Clinical Toxicology, 59:4, 269-278, DOI: 10.1080/15563650.2020.1860216  Okumura S, Okumura T, Ishimatsu S, Miura K, Maekawa H, Naito T. Clinical review: Tokyo - protecting the health care worker during a chemical mass casualty event: an important issue of continuing relevance. Crit Care. 2005 Aug;9(4):397-400. doi: 10.1186/cc3062. Epub 2005 Feb 17. PMID: 16137390; PMCID: PMC1269427. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1269427/  New Jersey Department of Health and Senior Services. Hazardous substances fact sheet. SARIN. https://nj.gov/health/eoh/rtkweb/documents/fs/2757.pdf  Adeyinka A, Kondamudi NP. Cholinergic Crisis. [Updated 2022 May 2]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2022 Jan. https://www.ncbi.nlm.nih.gov/books/NBK482433/  Attalla M, Alshamsi F, Perri D, Klimaszyk D. Cholinergic Syndrome (Cholinergic Toxicity). McMaster Textbook of Internal Medicine. Kraków: Medycyna Praktyczna. https://empendium.com/mcmtextbook/chapter/B31.II.20.12. | |
| **Application: First alarm (Topic 4.1)**  **Target audience: DO, FB, (M)P, AS** | **Learning objective:** To recognize signs of a potential CBRN release and (initiate first) respond(ers)  **Aim:** The dispatch officer interacts with the caller to identify the likelihood of a possible CBRN release and to know which information should be shared with the chain of command. Use of METHANE and Four W’s protocols. |
| Example: |  |
| **Application: Arrival on scene (Topic 5.1)**  **Target audience: FB, (M)P, AS** | **Learning objective:** To recognize how to carry out an on-site risk assessment, zoning of the area, and isolation and registration of victims.  **Aim:** The first responders arrive on scene, perform a risk assessment, talk with the caller, perform a reconnaissance of the incident scene and discuss actions. They apply METHANE, establish zoning, isolate people and pet animals, initiate evacuation, register persons. |
| **Example:** |  |
| **Application: Forensic awareness (topic 5.2)**  **Target audience: FB, (M)P, AS, EMS, GP** | **Learning objective:** To recognize how to carry out your work without forensic disruption of the scene.  **Aim**: The responders discuss the possible forensic value of the materials found on the scene and preserve the evidence. |
| **Example:** |  |
| **Application: medical treatment and triage (topic 5.6)**  **Target audience: FB, (M)P, AS, EMS, GP** | **Learning objective:** To recognize how to apply appropriate medical care towards patients involved in a CBRN incident.  **Aim:**The responders assess the medical conditions of the victims, perform triage on the victims and recommend possible treatment. |
| **Example:** |  |
| **Application: Alarm Protocol (topic 6.1)**  **Target audience: DO** | **Learning objective:** To differentiate a possible CBRN incident (from normal incident) and to carry out appropriate procedures & protocols.  **Aim:** The dispatch officer interacts with the caller and relays necessary information to the responders moving towards the scene. |
| **Example:** |  |