**MELODY “A harmonised CBRN training curriculum for first responders and medical staff”**

**DIRECTORATE-GENERAL MIGRATION AND HOME AFFAIRS - ISFP-2017-AG-PROTECT**

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**2.2 Test Questions**

**2.2.1 Routes of exposure**

1. Which exposure routes are relevant for all CBRN agents (chemical, biological, radiological and nuclear)?

1. Inhalation and ingestion
2. Inhalation, ingestion and direct contact
3. Inhalation, ingestion, direct contact and vector transmission
4. Inhalation, ingestion, direct contact, vector transmission and external radiation

2. If symptoms appear within seconds or minutes after exposure, what could be the cause?

1. Only a dangerous pathogen
2. Only a chemical agent
3. Only a strong radiation source
4. A chemical agent or a strong radioactive source

3. Which statement is true?

1. Exposure to a biological agent always leads to disease
2. Infection with a biological agent always leads to disease
3. Exposure to a biological agent always leads to infection
4. An infectious disease always starts with exposure to a biological agent

4. Your body has mechanisms to fight against:

1. Micro-organisms such as viruses and bacteria
2. Biological and chemical agents
3. Biological and chemical agents and radiation
4. None of the above

5. What is the 1, 2, 3 rule ?

1. The fact that in case of a CBRN incident you should not panic but step down and count to 3.
2. When arriving at a CBRN scene, count the number of victims to allocate proper resources.
3. A rapid assessment whether an incident could involve CBRN agents based on the number of victims.
4. A rapid assessment of the number of symptoms displayed by victims in order to inform medical assistance.

6. What does it mean, when we say “you have been exposed to CBRN material”?

1. You have been close enough to unshielded CBRN material to possibly be affected by the CBRN material.
2. You have entered a building or a room that turned out to be used as an illegal drug laboratory.
3. You have seen CBRN material.
4. You have touched CBRN material.
5. You show symptoms, which can be related to CBRN consequences.

7. What does it mean, when we say “you have been contaminated” with CBRN material?

1. You have been close enough to unshielded CBRN material to possibly be affected by the CBRN material.
2. You have inhaled contaminated air, ingested contaminated food or drink or been in direct contact with CBRN material.
3. You have worked on the scene of a CBRN incident.
4. You have entered facilities that turned out to be used as an illegal drug laboratory.
5. You have seen CBRN material.
6. You have touched CBRN material.
7. You show symptoms, which can be related to CBRN consequences.

8. Which of the following situations poses the highest risk of contamination for you?

1. Someone sprays an unknown substance onto your skin using a syringe.
2. You accidentally ingest an unknown chemical.
3. You accidentally spill unknown substances over your clothes.
4. Your personal dosimeter is starting an alarm at a crime scene.

9. What is the difference between “contamination” and “exposure”?

1. Contamination means that objects (such as clothes, equipment etc) carry CBRN substances or that animals/humans have CBRN substances on or in their body. Exposure means that you have been close to CBRN substances.
2. Contamination leads to health effects, while exposure does not.
3. Contamination describes the presence of CBRN substances on living organisms, on objects, in soil or in water. Exposure means that living organisms or objects have been in an environment, where CBRN substances have been.
4. Contamination happens very fast, while exposure is happening over a longer period.
5. The term “contamination” is used for risks from all kinds of CBRN substances, while “exposure” is only used for risks from radiological and nuclear material.

10. Ionising radiation can be …

1. … Felt immediately if the dose is high enough.
2. … Measured in high and low dose rates.
3. … Seen with special glasses.
4. … Always sensed as a strange taste in the mouth.

11. Which of the following statements is true?

1. Contamination cannot be transferred to another person.
2. Irradiation can be transferred from one person to another.
3. Irradiation cannot be transferred from one person to another.
4. Exposure can be transferred to another person.

12. The challenge with biological incidents is …

1. … That they always and immediately lead to sick people or animals.
2. … That it can take weeks or months before it becomes clear what happened, and that the source is hard to trace back.
3. … that there are so many ways of getting infected.
4. … that they happen so frequently.

13. Biological agents have their origin in naturally occurring pathogens or in toxin-producing organisms. What consequence does this fact have in the case of a CBRN incident?

1. It can be difficult to distinguish between a natural disease outbreak and a deliberate release.
2. Only people or animals that are not already immune to a specific pathogen, will be affected by the biological agent.
3. We could protect ourselves from biological agents by means of mass vaccination.

14. How long is the incubation period for biological agents?

1. Seconds to minutes
2. Days to weeks
3. Minutes to hours
4. Years

**2.2.2 To recognize a possible release**

1. A dirty bomb with radioactive material will most likely result in …

1. … Victims with external contamination.
2. … Victims with internal contamination.
3. … Victims with high doses from external sources.
4. … Victims, who will die within the hour.

2. Why is aerosolisation such an efficient dispersal method? Check all boxes that you think are correct:

1. Because it can be used for almost any CBRN agent.
2. Because spraying can happen without anyone taking notice.
3. Because it does not require much technology and much of the CBRN substance.
4. Because it is a very precise method for spreading CBRN material. A single individual can be targeted very directly.
5. Because large areas or groups of people can be covered with little effort.
6. Because the very small droplets of the spray reach far down into the lungs.
7. Because the very small droplets of the spray are easily spread through the ventilation system (if indoors) or by wind (if outdoors).
8. Because it is a very safe method for the terrorist.

3. In the list below identify means for the dispersal of CBRN materials. Check all boxes that you think are correct:

1. Derailed freight transport
2. Powder letters
3. Drinking water
4. Perfume spray flask
5. Breathing
6. Exposure of unprotected skin
7. Fire
8. Eating
9. Travelling by airplane
10. Vector insects