****

**Hazardous Area Response Team**

Meeting with Marc Rainey **Head of CBRN and HART – July 23rd 2018**

The HART team has been operating in London for 11 years.

1. **What types of incidents do HART get involved in?**

**epidemics – gasses – toxins – radioactive waste etc?**

HART Paramedics operate in hazardous environments whilst wearing specialist equipment. They may use swift water rescue techniques and respond at heights and in confined spaces where they may have to wear breathing apparatus equipment. They are responsible for triage, treatment and care of patients at the incident and work closely with other emergency services

HART is involved in responding to CBRN (chemical, biological, radiological and nuclear), Hazmat and other chemical incidents.

CBRN incidents are **intended** to cause harm and the term describes a deliberate release of hazardous materials

Hazmat is a material (such as flammable or poisonous material) that would be a danger to life or to the environment if released without precautions. The term ‘HAZMAT’ indicates an **accidental** release of hazardous materials.

The work of HART includes urban search and rescue; swift water rescue; accessing confined spaces; category iv infectious diseases and other major incidents including responding to armed terrorist.

**Category iv infectious diseases**

1 Hepatitis E 2 West Nile fever 3 Hepatitis A 4 Echinococcosis 5 Yellow fever 6 Psittacosis 7 Omsk hemorrhagic fever 8 Relapsing fever 9 Kyasanuru forest disease 10 Q fever 11 Rabies 12 Coccidioidomycosis 13 Monkeypox 14 Zika virus infection 15 Severe fever with thrombocytopenia syndrome (SFTS virus) 16 Hemorrhagic fever with renal syndrome 17 Western equine encephalitis 18 Tick-borne encephalitis 19 Anthrax 20 Chikungunya fever 21 Tsutsugamushi disease(Scrub typhus) 22 Dengue fever 23 Eastern equine encephalitis 24 Avian influenza (except H5N1· H7N9) 25 Nipah virus infection 26 Japanese spotted fever 27 Japanese encephalitis 28 Hantavirus pulmonary syndrome 29 Herpes B virus infection 30 Glanders 31 Brucellosis 32 Venezuelan equine encephalitis 33 Hendra virus infection 34 Efflorescence typhus 35 Botulism 36 Malaria 37 Tularemia 38 Lyme disease 39 Lyssavirus infection 40 Rift Valley fever 41 Melioidosis 42 Legionellosis 43 Leptospirosis 44 Rocky Mountain spotted fever

[www.fukushihoken.metro.tokyo.jp/iryo/kansen/kansensyoproject/ccida2016.files/List\_of\_Infectious\_Diseases\_Seoul.pdf](http://www.fukushihoken.metro.tokyo.jp/iryo/kansen/kansensyoproject/ccida2016.files/List_of_Infectious_Diseases_Seoul.pdf)f

1. **How many people in HART team?**

There are 98 people in the HART team, split equally

between east and west London. There are 7 people on duty in both

the east and west at all times. The HART team is part of a national

HART team and all AS HART teams work as one team when

required to do so. HART provide 24 hour cover at both sites.

1. **How are team members trained?**

All staff are trained to be able to carry out all aspects of HART

responses. The training is at a very high level and is continuous.

Initial training is for 12 weeks and carried out at a national level. All

HART teams operate to the same standard.

1. **How do you support or lead other emergency services in the event of a toxic incident like Salisbury**

All HART teams support each other regardless of where the incident takes place. HART staff must be prepared to leave their location within a 30 minute notice period and join any other HART team across the country. They may be away for up to 3 days.

Collaboration between services is described as ‘planned mutual aid’. In the case of Salisbury it was a ‘slow burn’ simple incident as far as HART were concerned. Initially action was intense, then there was a long period of slowing down and withdrawal by the HART team. HART have specialist advisers on CBRN and also links to PHE. The police and fire brigade are the main responders for dealing with substances that are used in CBRN incidents, while the ambulance service focuses on patients.

1. **Who notifies HART about incidents?**

Notification comes from the EOC – Incident Management Desk.

During July 15-21, 2018 there were 541 HART incidents. Some of these were to support Cat A (7 minute response) patients who may have suffered a cardiac arrest or major trauma. In May the following incidents were transferred to HART:

1876 Activations

339 CBRN/HAZMAT, working at height, confined space

10 Urban search and rescue

4 Water incidents

1. **Who instructs HART to act?**

The Incident Management Desk defines the incident and activates HART. The HART Team Leader will define the actions required for HART in liaison with the on scene commander

1. **What is the threshold for HART to act?**

When an incident comes in from the Incident Management Desk, the HART Team Leader carry a Dynamic Risk Assessment to determine what action needs to be taken and by whom. The decision to commit in PPE is usually confirmed in consultation with the Incident Support Officer (a HART Officer). The initial assessment takes under a minute for experienced staff.

1. **Are there pan London and national HART protocols?**

There are no protocols, but there are action plans based on specific roles and the recognised hierarchy, e.g. the Silver and Gold leadership roles. Marc’s role is advisory. The key objectives are to provide early and safe resolution of major incidents and this is accomplished by effective HART teams working singly and jointly with other HART teams, and with the LFB and the MPS. There are London and national SOPs (standard operating procedures proving step-by-step instructions to help with complex routine operations), and a national working group to ensure SOPs are appropriate and accurate. All SOPs updated yearly.

1. **Does the HART team have a range of specialist skills?**

HART staff do have specialist skills, but all team members must have the same generic skills. Collaboration with other agencies can include the role of the police in moving and corralling people in the vicinity of incidents (it can take 900 police officers to create a 600 meter cordon.

1. **Who is HART accountable to?**

Accountability in London is to the Director of Operations (Paul Woodrow) and from Paul to the Chief Executive Garrett Emmerson. .

1. **Who coordinates HART and other agencies when there is a major disaster?**

Coordination is through Command and Control in collaboration with national mutual aid. Sector Bronze Officers take control and on- scene staff are accountable to the sector commanders in line with the major incident plan. HART sits comfortably in the command and control structure at an operation level. The HART Team Leader will likely become a Sector Bronze, responsible for the deployment, safety, coordination and command of their team. This role will be supported by the Incident Support Officer.

1. **How does HART reflect on its practice after a major incident?**

Reflection on incidents is considered very important and is practiced though ‘hot debriefs’ and cold ‘debriefs’. A great deal of time is given to discussing incidents and improving practice. Quiet time is used for additional training. Individual reflections can be through the TRIM process but is most often through 1:1 with colleagues.

The concept of TRIM is excellent, but a high quality service is not always available.

1. **How would HART operate if there was a toxic attack like the Salisbury incident? Who would do the decontamination?**

Decontamination of staff wearing PPE is carried out chiefly by the fire brigade. The ambulance service is responsible for decontamination of patients. The Government Decontamination Service is responsible for overseeing the decontamination of premises and the environment. There are several types of decontamination including:

1. Wet decontamination – now rare because it can spread the poison around and force the poison into a person skin.
2. Non-caustic dry decontamination.

Dry Decontamination

Unless casualties are demonstrating signs or symptoms of exposure to caustic or irritant substances (for example, redness, itching and burning of the eyes or skin), exposed skin surfaces should, in the first instance, be blotted and rubbed with any available dry absorbent material such as paper tissue, clean cloth, etc. All waste material arising from decontamination should be left, and ideally bagged, for disposal at a later stage. Depending on the nature and extent of contamination wet decontamination may be needed to decontaminate hair. However, the critical steps of rapid evacuation, disrobe and dry decontamination should NOT be substituted or delayed whilst interim wet decontamination is established. Whether wet decontamination follows dry decontamination should be the subject of a dynamic risk assessment by on scene emergency service personnel as the nature and extent of contamination will be context-specific

Science and Technical Advice Cell (STAC) ensures timely coordinated scientific and technical advice during the response to an emergency.

https://en.wikipedia.org/wiki/UK\_Government\_Decontamination\_Service

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\_data/file/62122/stac\_guidance.pdf

1. **Which organisations are responsible for declaring that an area is to be evacuated?**

This decision is taken by multi agency commanders on scene

1. **How does HART coordinate with PHE, Environment Agency, COBRA and Porton Down for toxic/nerve agent incidents like Salisbury?**

There is good collaboration with PHE, but they can sometimes respond slowly, e.g. in relation to the cleansing of clothes following the Salisbury incident (took 5 days for PHE to advise the washing of clothes). The principle collaboration is with the FBC, MPS, PHE and the Environment Agency (not Porton Down or COBRA). The LAS legal duties are to the patients; the other agencies have duties to the wider community. For example during the London Bridge incident, an elderly man broke his hip in a nearby flat. Follow the risk analysis four paramedics went to his aid, with six armed police officer. The man was transferred to a van and later to an ambulance. PHE also has an information source called: ToxBase which is available through a secure log in to ambulance services. **https://www.toxbase.org/**

1. **Does Porton Down identify the toxic agents?**

The LFB and MPS identify the agent immediately, and Porton Down arrive by van or helicopter to take samples and confirm identity of the substance, or the substance may be taken securely to Porton Down for analysis.

1. **Communications in the underground system**

Problems were identified on July 7th 2005 in relation to the communications between staff at ground level and those below. Although the communications are considerably better, because of the amount of radio traffic generated a major incident, and the restricted number of channels available at an underground incident, there are likely to be capacity issues with the radio system.

1. **Special Operations Response Team**

There are three full time SORT/CBRN officer post in the Trust. SORT is a team that brought together at an incident where decontamination is required to provide that function. Equipment including PPE and decontamination structures will be brought to the scene.

.

1. **Presentation to Forum Members**

Marc agreed to provide a presentation for Forum members at the east London HART centre. Members can meet the duty team, learn about their work and discuss the varieties of kit used for major incident responses,

**With great thanks to Marc Rainey.**

**CONTACT DETAILS FOR MARC RAINEY:**

**Marc Rainey| Head of CBRN and HART | London Ambulance Service NHS Trust** |**Emergency Preparedness, Resilience and Response.**

End

**Internet References`**

1. <https://naru.org.uk/naru-work-activities/naru-work-activities-capability-deliverables-hart-programme/national-hart-teams/>
2. <https://www.swast.nhs.uk/What%20We%20Do/hazardous-area-response-team.htm>
3. http://www.wales.nhs.uk/sitesplus/documents/888/home%20office%20ior%20guidance%202015.pdf