Operational Information Note 57/19

Acid Attack

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Introduction

Attacks using acid have increased in recent years, and operational crews need to be aware of the appropriate actions to take when dealing with this type of incident. Acid has been used in criminal acts ranging from revenge attacks to muggings and vehicle theft. Strong acid such as sulphuric acid is cheap and readily available, and it is not illegal to carry it in public as it has a number of legitimate uses. Since 2016 there have been over 2000 reported attacks in London alone. In light of the rise in the use of acid in attacks, it is increasingly likely that fire crews will be called to assist at these types of incidents.

Legal consequences

Fire and Rescue Services have a statutory duty under the Fire and Rescue Services Act 2004 to respond to other emergencies to protect people from harm, injury or death.

Service Policy

- Kent Fire and Rescue Service will mobilise operational personnel to incidents involving reported acid attacks, in order to provide copious amounts of water to treat casualties suffering from acid burns and to ensure the safety of members of the public in the immediate area.
- Consider STEPS 1-2-3 PLUS protocol upon arrival and an early make up for additional resources if required.
- Operational personnel will refrain from covering acid burns with bandages or burns dressings, or from wiping acid off the skin as this can cause more harm.
- Incident Commanders will ensure full PPE is worn for treating acid burn casualties, including fire helmets to provide face protection from acid splashes.
- Operational personnel will exercise extreme caution when handling containers (especially if opened), crews should refrain from completing sniff or taste tests of suspected contaminants to avoid potential personal injury.

Operational Considerations

It is important that all operational staff are aware of the following:

- South East Coast Ambulance Service (SECAmb) have advised that anyone attacked in this way will need emergency medical treatment immediately.
- Request Kent Police attend (if not already in attendance), as acid attacks are a serious criminal offence. Crew members (that have attended this type of incident) should make contemporaneous notes on return to station to assist them if the police require a statement.
- The immediate care treatment is the same for both an acid and an alkali attack. Flush with copious amounts of water to remove the chemical and cool the affected area.

- Crews should consider the 'Cooling Burns Hierarchy for where water is delivered from:
    1. Tap, shower or bath in a property
    2. Bottled water
    3. Water from a previously run hydrant
    4. Water from an appliance tank

  Note: If water is used from an appliance tank, a hosereel on low pressure with the branch set to flush should be used.
- The priority being to remove the chemical (not neutralise it) from the casualty as quickly as possible as burning will continue until all of the chemical has gone.
- While flushing the skin, care must be taken to prevent the water flowing over unaffected areas as this will spread the damage. This flushing should be maintained for 20 minutes to remove the chemical and cool the affected area.
- Do not allow acid to enter the nose or mouth as it is important that the casualty's airway is maintained. Flush these areas first to limit damage.
- Remove contaminated clothing to provide better access to flush affected skin, taking great care not to pull clothing over the head. Consider cutting off clothing as a safer way to prevent the spread of the contamination to unaffected skin.
- Do not cover acid burns with bandages or burns dressings and do not try to wipe the acid off the skin using a damp cloth or neutralise it with soda ash as this can cause more harm.
- Where multiple people have been affected, consideration should be given to 'Steps 123PLUS' (the established protocol for assessing the scene of an unknown chemical release).
- Where the nature of the attack is known to be acid, there is limited risk to the first aider flushing the affected area. Fire gear and gloves will provide sufficient protection from the amount of acid that may be in the cooling water splashing from the casualty., Fire helmets should be worn to provide protection to the face and eyes from acid splashes
- In an emergency, police officers or ambulance crews may request KFRS assistance to provide water to flush off any contaminants.
- If the casualty is in an enclosed area, consider ventilating any corrosive vapours.

Additional Considerations

The corrosive material used may be in its original container, or it may have been decanted into other containers to disguise or weaponise it. Common containers used are sports/squeezeable plastic bottles, but many other types of container have also been used.

- Ensure any suspect bottles/containers are placed on the ground prior to approaching persons.
- Do not carry out sniff or taste tests of suspected contaminant.
- Minimise contact with the contaminant and those contaminated.
- Wear eye protection and gloves (safety glasses, visors and chemical gauntlets if available).
- If wearing standard nitrile gloves, double glove and remove them immediately after use or exposure.
- Exercise extreme caution when handling containers, especially if open.
- Corrosive vapours may be in the vicinity of the contaminant and this should also be considered in terms of ventilation of the area.
- Consider scene safety and establish cordons.

Person Impact Assessment Considerations

The health and welfare of casualties should always a priority, however personnel must consider and take appropriate action in relation to:

- Protecting the modesty of individuals
- Sensitivity of an attack on an individual or group of individuals which may be considered a as a result difference
- Provide clear instruction and reasoning to promote understanding for casualties that may have learning differences

Actions for Fire Control

If a call is received reporting an assault involving acid or other corrosive material:

- A Fire Service response should be made to the scene without delay
- SECAmb must be informed immediately (anyone attacked in this way will need emergency medical treatment)
- The Police must be informed immediately
- A Fire and Rescue Service National Inter-Agency Liaison Officer (NILO) should be informed
- Consider the deployment of specialist Hazmat or DIM response
- Provide immediate first aid and safety advice to the caller:

    - **REMOVE** – *YOURSELF AND THOSE CONTAMINATED FROM THE IMMEDIATE AREA*
    - **REMOVE** – *AFFECTED CLOTHING*
    - **REMOVE** – *CONTAMINANT*

Figure 1 - Remember: REMOVE, REMOVE, REMOVE

1. REMOVE… Individuals from the immediate area

ADVISE

- Affected individuals should REMOVE themselves from the immediate area
- Fresh air is important
- Get affected individuals to head uphill, as well as into the wind, if possible
- If safe to do so, bring others who may be affected
- if someone's skin is itchy or painful, they must urgently find a water source

REASSURE

- Leaving the immediate area will avoid further exposure to any material in the air
- If skin is itchy or painful, lots of water is essential for fast treatment and reducing harm

ADVISE

- To REMOVE casualties outer clothing if it has been affected by the substance
- Avoid pulling clothing over the head, cut clothing off to remove
- Do not attempt to remove clothing stuck to the skin
- Do not to smoke, eat or drink
- Once clothing has been removed, move away from the discarded clothing

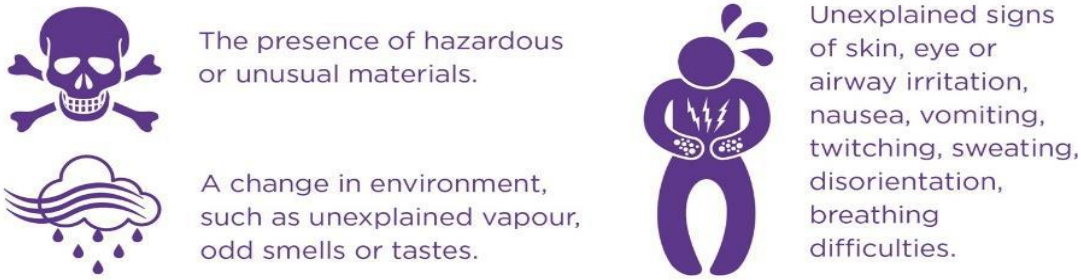
REASSURE

- Removal of outer clothing reduces the risk of further exposure (to any material trapped in the clothing) by up to 80%
- Removing clothing over the head increases the risk of the eyes, mouth and nose coming into contact with the hazardous substance, and it may then pass into the body
- The discarded clothing may be a hazard to anyone nearby as it may be covered in, or have absorbed, the hazardous substance and may give off harmful fumes or particles
- Smoking, drinking or eating, or touching the face or eyes, may pass hazardous material from the hands into the body by inhalation, swallowing or absorbing through the eye membrane

2. REMOVE… Outer or affected clothing

3. REMOVE… the substance 	***ADVISE*** Ask anyone you think has been affected: "Is your skin painful or itchy?"
	NO: ▪ REMOVE the substance using a DRY absorbent material to soak it up or brush it off **YES:** ▪ RINSE the affected area with lots of water (20 minutes) ▪ As far as possible try to avoid the water running onto unaffected parts of the body (advise casualty lean head forward, hold arms out as appropriate) ▪ If the casualty has a corrosive substance in their eyes then the responder may have to open the casualties eyes to help flush with water. Care should be taken to avoid contact with the substance (WEAR PPE) and to avoid the water running onto other parts of the casualty's face or body as far as possible.
	REASSURE ▪ Continue to communicate with casualties and reassure throughout ▪ That the actions taken give the best chance of reducing harm ▪ The casualty should not leave the scene. This is because they may suffer delayed symptoms or still have a small amount of hazardous material on them which could present an ongoing risk of being spread to others.

REMEMBER: Exposure is not always obvious – SIGNS CAN INCLUDE:



Further Information

	Relevant National Operational Guidance
	Hazardous Materials – Health Hazards
	Hazard – Exposure to materials with acute health effects **Control measure** - Substance identification: Corrosive materials
	Hazard – Release or spill of corrosive material **Control measure** - Substance identification: Corrosive materials
	KFRS relevant operational guidance
	None
	Other related guidance
	National Operational Guidance – Hazardous Materials

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