

Basic First Aid: Incident Management

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First Aid

When an accident or medical emergency occurs, you need to be able to provide a basic level of care until someone with more advanced training can take over. Since knowledge of first aid is not widespread in the UK¹, this may involve taking full control of a serious incident for up to eight minutes while waiting for an ambulance to arrive. In more remote locations and on expedition, this time might be longer and the need for effective immediate care is even greater.

Definition First aid is defined as “the immediate assistance or treatment of a sick or injured person before the arrival of more qualified assistance such as an ambulance or doctor”. [2, p7.12]

Aims The aims of first aid are the three ‘P’s.

- P** Preserve life
- P** Prevent further injury
- P** Promote recovery

Managing an incident

Safety

Nothing is more important than safety. Priorities can be remembered as ‘1-2-3’:

1. *You*. Your own safety must come first.
2. *Bystanders*. Consider the safety of bystanders and other rescuers, and ensure that they do not become secondary casualties.
3. *Casualties*. Keep your patients safe.

¹For example, only about 1 in 1000 Londoners are trained in Emergency Life Support. [1]

Five Point Action Plan

We introduce AMEGR as a systematic plan for dealing with any incident.

A *Assess*. Stop and assess the situation. Look for hazards and determine the number and nature of casualties. Think about where the nearest first aid kit, telephone and bystanders might be. If you are the most experienced first aider at the scene, take charge.

M *Make safe*. Do not do anything which might compromise your safety. If there is a hazard then it must be made safe. Your options are, in order of preference, to

1. remove the danger;
2. remove the casualty from the danger; or
3. call 999 and wait for help.

E *Emergency aid*. Once it is safe to do so, you should provide first aid. Try to stay calm, use common sense and think back to your training. If you feel overwhelmed, immediately call for an ambulance.

G *Get help*. You should shout for help as soon as you come across the casualty. If his condition is life-threatening or you are not confident to treat him on your own, call 999 and ask for an ambulance.

R *Record*. When the paramedics arrive you need to perform a patient handover and ensure that the casualty’s belongings go with him to hospital. Also report the incident to a member of staff (in a sports centre, for example), or complete the necessary paperwork if you are the person responsible.

Each of these steps will now be considered in detail.

A: Assess the situation

When you come across an incident, resist the temptation to run blindly in. Stop where you are and perform a three-point assessment.

1. *Check for hazards.* Nobody collapses or becomes injured for no reason. While some problems (like heart attacks) arise from underlying medical conditions, you should be suspicious of environmental hazards. Look, listen and smell for anything unusual, and deal with hazards as you find them.
2. *Read the scene.* It is helpful to look for clues to what is wrong with the casualty. If all the lights in the building have fused, he may have been electrocuted; if a hypodermic needle is on the ground then he may be diabetic or have taken an overdose. Don't jump to conclusions, but think about what might have happened. At a motor vehicle collision you can "read the wreckage" by looking at the positions of the vehicles. A head-on impact is likely to cause injuries to the front of the body, while a side impact will cause injuries on that side.
3. *Count the casualties.* Make sure that you have found, assessed and prioritised all casualties before beginning to provide treatment. Some casualties may be hidden from view.

Priorities of treatment If there is more than one casualty then you need to work out where to focus your attention. Prioritise using the three 'B's.

- B** *Breathing.* If a patient is not breathing or has difficulty doing so then his condition is immediately life-threatening. Without oxygen, brain damage can begin in just three minutes. [3, p106]
- B** *Bleeding.* Severe bleeding may lead to hypovolaemia (a reduced volume of circulating blood). Although this can be fatal, it is not as serious as a breathing problem.
- B** *Breaks and burns.* These can be painful, but they are not generally life-threatening.

Obviously a patient covered in serious burns should be treated before someone with a small papercut, so apply common sense - but always focus first on

unresponsive (unconscious) patients, as they may be unable to breathe for themselves. Screaming patients clearly have no difficulty breathing.

Taking charge If you are the most experienced person at the scene, assert your authority immediately; otherwise offer your help to whoever is in charge. When someone collapses or gets hurt, it is typical for friends and bystanders to crowd around and this can make it difficult to provide help. Don't be afraid to tell them what to do.

Giving commands Stay calm and speak firmly. Your commands should be 'CLAP'.

- C** Clear
- L** Loud
- A** As an order
- P** with Pauses

If there are a number of bystanders, give commands to individuals rather than trying to shout at the whole group. Ask a few people to stay with you as they will be able to help with removing hazards, providing first aid, calling for assistance and recording the incident. Remember that people are more likely to listen if you sound confident.

M: Make the area safe

Recall the 1-2-3 of safety. Before approaching the casualties, you need to make sure that the scene is safe. You will already have identified the main hazards as part of your initial assessment, and may have dealt with them then. Remember that the 'Assess' and 'Make safe' are simultaneous.

Let's look at a few common hazards.

Cross-infection You need to assume that every patient carries an infectious disease. If there is any blood, vomit or other bodily fluid then wear gloves and insist that other first aiders do as well. If you have any cuts or grazes, make sure they are well covered.

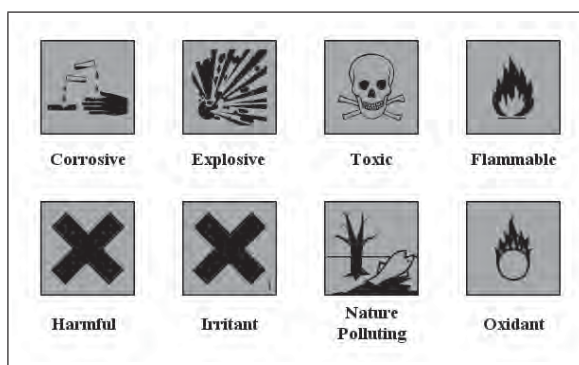
Don't forget your gloves!

Traffic accidents The main hazards are fire and other road users.

1. Move all bystanders away from the road, and set up a warning triangle at least 45m behind the wreckage. If it is safe to do so, ask a couple of people to help direct traffic.
2. Ensure that all vehicles have their engines off, and handbrakes and hazard lights on.
3. Look out for leaking fuel or anything else which might start a fire. If there is any risk, move everyone well away.
4. Do not allow anyone to smoke.

Because of the risk of spinal injury, you should not move casualties unless it is absolutely necessary to do so. Do not remove an injured motorcyclist's helmet or attempt to free casualties from their vehicles unless they are in immediate danger, or they are not breathing.[5]

Hazardous substances You need to recognise the standard European Union hazard symbols.



- “*Corrosive*”: Destroys living tissue.
- “*Explosive*”: Blows up.
- “*Toxic*”: Can be lethal if swallowed, inhaled or absorbed through the skin.
- “*Flammable*”: Catches fire easily.
- “*Harmful*”: Mildly toxic.
- “*Irritant*”: Mildly corrosive.
- “*Nature polluting*”: Bad for the environment.
- “*Oxidant*”: Helps other substances burn.

Fire Small fires can be put out with a fire extinguisher or fire blanket (but be careful never to use a water extinguisher on an electrical fire). On discovering a serious blaze, or if a minor fire grows out of control,

1. *Raise the alarm.* Make sure everyone in the building evacuates.
2. *Get straight out.* Don't investigate the fire or stop to collect valuables or pets. Close doors behind you as you go. Before you open a door, touch it with the back of your hand; if it feels hot then the fire is on the other side. If a room is full of smoke, crawl along the floor where the air is cleanest.
3. *Call 999.* Give an exact location and describe what type of building is on fire. Tell the operator if anyone is trapped inside.
4. *Don't go back in.* If anyone is still trapped, the firefighters will be able to find them much faster than you can.

If your escape route is blocked...

1. Try to climb out of a window on the ground or first floor. Throw bedding and cushions to break your fall, and then lower yourself by your arms from the window ledge before dropping.
2. If you cannot escape then get everyone together in one room, close the door and seal around the bottom with clothing or cushions. Open a window, shout for help and stay where you are.

If someone's clothes catch fire, make them immediately STOP, DROP, WRAP and ROLL. By dropping to the ground, wrapping tightly in a heavy fabric (not nylon!) and rolling on the ground they will smother the flames. Irrigate any burnt skin with lots of water. [6]

Drowning If someone is drowning, remember “reach and throw, do not go”. Throw a lifebelt or float rope if one is available, or try to reach the casualty with a stick. In an emergency call 999. Once the casualty is safely out of the water, first check for responsiveness and breathing but also keep him warm. Even if he seems to fully recover, he still needs to go to A&E immediately as there may be complications. [2, p7.6]

Electricity There are two categories of electricity. By ‘low voltage’ we mean 240V which is common in the home and office, whereas ‘high voltage’ refers to the electricity used in railways and overhead power cables.

- *Low voltage.* Even household electricity can be lethal, so look out for your own safety. If someone looks like they have been electrocuted, cut off power at the socket or central switchboard, and remove the plug. Do not touch the casualty until the current has been disconnected.
- *High voltage.* Stand back! High-voltage electricity can arc up to 18m. You need to call 999 and tell the operator about the hazard; they will arrange for power to be switched off and tell you when it is safe to approach. [3, p26] Even if the power looks like it’s turned off, be aware that it may be suddenly restored without warning (power companies confuse the interruption with ‘bird strike’) so stay back until you are told it is safe. [4, p7]

E: Emergency first aid

Once the scene is safe you can go ahead and provide first aid. Remember your priorities of treatment, and keep safety in mind at all times. If the situation changes (e.g., a fire breaks out), go back and re-assess your safety.

First aid kits You can find a first aid kit in every workplace and many vehicles in the UK. The most basic kits contain gloves, waterproof plasters, dressings and triangular bandages. If you cannot find a kit, it is better to improvise than waste time looking for one; for example you can tie a t-shirt around a wound as a makeshift dressing.

Guidelines There are three main principles of casualty management at this level.

1. If it might harm the patient, don’t do it.
2. Use common sense.
3. If the casualty’s condition is life-threatening or you feel overwhelmed, call 999 straight away.

Basic treatment

- *Unconsciousness.* Your priority is to keep the patient breathing. If you have been trained in basic life support, check “DRABC” as you were taught. Otherwise call an ambulance immediately and ask the operator to talk you through what to do next.
- *Wounds.* Your priority is to stop bleeding. Ask the casualty to apply direct pressure to his injury and elevate it above the level of his heart to reduce blood loss. Find a suitable dressing, and use a gloved hand to press it firmly against the wound for at least ten minutes. Resist the temptation to keep checking whether the bleeding has stopped.
- *Fractures.* Your priority is to immobilise any injured parts, as movement might damage blood vessels, nerves and other structures. You should simply call for help, reassure the casualty and use blankets or spare clothes to pad around the injury.

You will learn much more about treating these and other conditions on later courses.

Avoid common mistakes

- Don’t give the casualty any food or drink.
- Don’t give him any medication.
- Don’t make him vomit.

Environmental factors Think about the effect of the environment (heat, cold, rain, wind) on your patient, and bear in mind that he may be much more sensitive than you. Improvise a shelter.

Privacy Casualties tend to feel uncomfortable when crowds gather. Move somewhere quiet and ask a bystander to disperse onlookers.

G: Get help

Shout for help as soon as you come across the incident - even an untrained bystander will be able to assist you. Once you know more about the casualty, you need to determine what type of additional medical help is needed.

- *Call an ambulance* if the casualty's life is threatened or you feel out of your depth.

Example: an unresponsive casualty.

- *Take the casualty to A&E* if he needs urgent help but the situation is not serious enough to call an ambulance.

Example: a broken ankle.

- *Advise the casualty to see his GP* if he does not need help right away but ought to be properly checked out.

Example: a cut at risk of infection.

- *Take no further action* if you only had to do something basic and are confident that the casualty will quickly recover.

Example: a minor sprain or strain.

Phoning for help You need to find a telephone.

- Mobile phone (yours or a bystander's)
- Home or office telephone
- Phone box (emergency calls are free)
- Motorway emergency phone (there is one every mile on the motorway, and signs in between point to the nearest one)

Emergency services When you call 999 or 112 (both are equivalent), an operator will answer and ask which service you require. The options are:

- Police
- Ambulance
- Fire and Rescue
- Coastguard

If there is no immediate danger then ask for an ambulance. If there is a hazard such as fire, ask for a service which can make the scene safe but mention that an ambulance is also required. During offshore activities you may need to ask for the coastguard, and on expedition you can request mountain rescue by talking to the police.

Describing the incident When you ask for an ambulance, you will be connected to an operator in your local Ambulance Control room. He will ask for the number you are calling from (in case the call is cut off), the location of the incident and details about the casualties. He will also talk you through some basic first aid if necessary. If a casualty is in life-threatening condition (for example, he is not breathing) then mention this immediately to get an urgent response. You need to communicate ETHANE:

E Exact location

T Type of incident

H Hazards

A Access routes

N Number, severity and type of casualties

E Emergency services required

Example: *“We are at the north end of Ockley Common near Elstead in Surrey; one male aged 16 is not breathing with a suspected head injury; a minibus collided with a parked truck at 20mph; the ignition is off and there are no other hazards; access is by Pot Common at gridref SU90644258, a man in military uniform wearing hi-viz will be waiting at the gate; a first aider is providing basic life support, four other casualties have minor injuries; we need an ambulance.”*

R: Record the incident

Patient handover As soon as help arrives, you need to hand over all patients to the paramedics. For each one, go through MIST:

M Mechanism of injury (what happened?)

I Injuries

S Signs (e.g. breathing and heart rate)

T Treatment given

Accident book All workplaces are required to keep a log of accidents. If you are at cadets, at school, at work or in a sports centre, make sure that someone in charge knows what has happened. If you are the designated first aider, you need to fill in a simple form after treating the casualty to record what happened - this is usually a page in the “accident book”.

If the incident was serious, or it was a near miss, you must report it immediately to the Health and Safety Executive. Ask your manager about the “Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995” (RIDDOR).

PTSD Witnessing a horrific or catastrophic incident can be emotionally traumatic for bystanders and rescuers as well as the casualties. In extreme cases this can lead to posttraumatic stress disorder (PTSD). This condition is characterised by:

- Flashbacks and nightmares
- Emotional numbness
- Lack of enjoyment
- Increased anxiety

PTSD can be treated with psychotherapy and most people recover completely, but it is essential to recognise it early. If you suffer any of the symptoms, make an appointment with your GP. [4, p549]

Minor stress After being present at an unpleasant incident, it is very common to feel stressed without suffering full-blown PTSD. This tends to pass with time, but you can help get over it by taking regular exercise and talking about your feelings with friends and family.

Example Scenario

You are driving on the motorway when three other cars collide in front of you. You stop a safe distance behind the wreckage. Two casualties are not moving, one has been decapitated, one has a penetrating chest injury and two more have severe lacerations (cuts) to their arms and legs. A small fire has started in one vehicle. What would you do?

Think about this before you read the solution!

A Perform a three-point assessment.

1. Hazards.

Traffic. Park safely, turn off your engine and display your hazard lights. Put up your warning triangle 45m behind the vehicle. Signal other drivers to stop and help, but stay well away from the road whenever possible.

Fire. If the fire has grown out of control then stand back and call 999. Otherwise find an extinguisher and try to put it out.

2. ‘Read the scene’, making a mental note of how the collision occurred to give you clues about what injuries to expect.

3. Account for all casualties.

M Make a final check that everyone is safe, and put on some gloves. Note that the main hazards were dealt with as soon as they were found, even before the assessment had been completed. Ask bystanders to assist with first aid, divert traffic and call 999.

E The decapitated man is dead, so focus your attention on the two who are not moving. Open their airways and commence basic life support if you know how. The next most urgent casualty is the one with a penetrating chest injury, as he may have a punctured lung and this will affect his breathing. Bleeding and breaks are less important, but still delegate people to treat them if there are enough bystanders.

G Use a mobile or emergency motorway phone to dial 999, unless you are certain that this has already been done (if in doubt, call again). Ask for an ambulance and communicate ETHANE. The operator will talk you through how to provide specific first aid.

R When paramedics arrive, communicate MIST and offer your help. They will take over the incident, and the police will deal with most of the aftermath. If you feel too panicked to drive, tell the police as they may be able to give you a lift home. Be aware of PTSD, and consult a doctor if any symptoms arise.

Test yourself

How much can you remember?

1. What are the aims of first aid?
2. State the Five Point Plan, and explain what it is used for.
3. What are the three main principles of basic casualty management?
4. State one safety precaution you should take before treating a bleeding casualty.
5. If there is danger but you cannot remove it, you have two other options. What are they?
6. What is the 1-2-3 of safety?
7. When you speak to Ambulance Control, what do you need to tell them over the phone?
8. During your scene assessment you should try to do three things. What are they?
9. If one casualty is bleeding and crying out in pain and another is lying unconscious on the floor, who should you treat first? Why?
10. Which emergency services can you reach by calling 999? What about 112?
11. If an aerosol can is marked with the skull and crossbones sign, what does that tell you?
12. List four pieces of information you need to tell the paramedics when they arrive.
13. At a traffic accident, how far away should you place the warning triangle?
14. What should you do if your clothes catch fire?
15. What is PTSD, and what are the symptoms?
16. How far can the electricity in overhead power lines jump?
17. Some casualties require an ambulance. What are the other options for sending on a patient?
18. As a guideline for issuing commands, some people use 'CLAP'. What does this stand for?
19. How should you treat a fracture?

References

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- [5] Para 257. *The Highway Code*. Accessed 28 June 2007. <<http://www.highwaycode.gov.uk/24.htm>>.
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