



Hazardous Area Response Teams are specially recruited and trained personnel who provide the ambulance response to major incidents, involving hazardous materials.

The Hazardous Area Response Team (HART) programme may be in the early stages of development in England's ambulance services, but already it is being greeted with open arms by many fire and rescue service personnel there. Hilary Pillin, HART programme manager for the Department of Health, outlines the aims and objectives of the initiative as well as future expectations for a national roll-out of the project.

TAKEN TO HART

The devastating fire at a vegetable packing warehouse in Warwickshire, England in November 2007 ended in tragedy for four young firefighters sent in to tackle the blaze. The hearts of the emergency services community went out to their families, friends and colleagues.

Steve McGuirk, president of the Chief Fire Officers' Association, said at the time: "This dreadful incident is a sharp and poignant reminder to us all of the risks faced by our firefighters on a daily basis and that there is no such thing as a routine incident". It certainly brought home to everyone the cruel reality that such scenes can deal those of us there to help.

For our recently-established Urban Search And Rescue (USAR) paramedics, the fire, and its sorry aftermath, presented their

first real challenge in their new role; being called upon to support fire colleagues working in precarious conditions in the recovery process. They went 'live' as a team in Yorkshire Ambulance Service NHS Trust on 1 September 2007, following a meticulous recruitment process and three weeks of rigorous training at the Fire Service Training College, Moreton-in-the-Marsh.

The USAR paramedic role has been developed as part of the UK Department of Health's Hazardous Area Response Team (HART) programme and in response to a request from the Fire & Rescue Service back in 2006 which emanated from their national 'New Dimensions' programme, set up following 9/11. The HART programme began in 2005 following a report on 'hot zone working' by the Ambulance Service Association's

Civil Contingencies Committee.

CLINICAL INTERVENTIONS

This move acknowledged that UK ambulance services are impeded in their ability to undertake, at an early stage of a chemical, biological, radiological, and nuclear (CBRN) or HAZMAT incident, the clinical interventions necessary to preserve life. It also suggested that it could be feasible to perform life-saving interventions within the inner cordon of such incidents, provided the risk and safety issues were managed appropriately.

Until this point the practice has always been to wait for casualties to be brought out by fire and rescue crews to a 'safe' area outside the inner cordon, where decontamination and/or treatment can begin.



Urban Search And Rescue (USAR) paramedics during a training session.

The multi-disciplinary, multi-agency work group that was subsequently established in summer 2005 was led by Russ Mansford, the strategic ambulance advisor for emergency preparedness to the Department of Health. They began to look in detail at the implications and possibilities of ambulance personnel being trained and equipped to work in the centre of incidents that potentially involved CBR substances or that presented other hazardous environ-

ments, whether resulting from accidents or deliberate instigation. It is fair to say that the terrorist events of July 2005 in London gave added impetus and meaning to this work as it got underway.

It was not long after these events that the request came from Britain's national fire services for a USAR paramedic capability to work alongside them to be incorporated into this work programme. London Ambulance Service currently has a HART

Incident Response Unit (IRU) under evaluation, having gone live in January 2007. They have CBR capability that incorporates four levels of personal protective equipment up to gas-tight chemical protection suits and extended-duration breathing apparatus.

In their first 10 months they have attended 830 HART-specific incidents – 40 per cent HAZMAT/CBRN; 22 per cent suspect packages/vehicles/unexploded devices; 20 per cent complex transport incidents, such as train derailment and multiple vehicles; 11 per cent major fires/explosions and four per cent unsafe collapsed structures.

HAZARDOUS INCIDENTS

The HART-USAR element (with no CBR capability) is being evaluated in Yorkshire. These roles will eventually be combined, thus providing a team of highly-trained and specially-equipped paramedics, able to respond to a wide variety of hazardous incidents. This will soon also encompass Maritime Incident Response Group (MIRG) paramedics, whose role has been developed through a separate 'Sea of Change' project, again working closely with the fire service and also the HM Coastguard to provide paramedic response at sea.

The HART programme is now rolling out



Becoming a HART member is no mean feat - applicants must have at least three years operational experience.

The fire at a vegetable packing warehouse in Warwickshire in November 2007 claimed the lives of four young firefighters.



in a phased strategy, to establish HART units in 11 locations within ambulance trusts across England. Ultimately it is hoped there will be 18 units across the UK, working in conjunction with similar projects in the devolved administrations. The evaluations in London and Yorkshire are informing the ongoing development of HART and a national roll-out.

A critical element in the roll-out is in ensuring a consistent model, including a national standard for selecting and training HART personnel as well as standard operating procedures, vehicles and equipment. Inter-operability with other agencies is also essential. This will support the wider aims of the programme to allow smooth mutual-aid arrangements if required.

The overall aims of setting up HART are firstly, to develop the capacity and ability to save lives that may otherwise be lost in the event of incidents involving hazardous environments or materials. Secondly, they aim to enhance the delivery of healthcare provided by enabling ambulance clinicians to work inside the inner cordon. Inherent in this is the ability to support our colleagues from other emergency services who we are working alongside in these circumstances, and the potential for this was very much demonstrated in the Warwickshire incident.

POTENTIAL FOR INJURY

Our USAR team was called upon to support the fire teams going in to recover the bodies of their colleagues in the warehouse. The remnants of the warehouse presented an extremely hazardous environment, with the potential for those involved in the retrieval to be injured in the process, despite all precautions being taken.

Having paramedics available who could provide critical treatment expeditiously, if required, directly within that environment was a first and was welcomed wholeheartedly by the fire crews at the scene. Andy Smith, a USAR paramedic explains, "We arrived on scene late on Sunday night to a scene of utter devastation. However, it was essential that we were able to support our fire and rescue colleagues at such a tragic time. The fire crews on the ground definitely appreciated having clinical support, which was well trained and equipped to allow them to work in this extreme environment, had another incident occurred."

USAR team manager Mick Hardaker also commented on the incident, telling how four teams of two were sent to the scene from Yorkshire and worked a 12-hour on and 12-hour off system for four days until the conclusion of the incident. "The remote logistics were complex for us but we had tremendous

support from the host ambulance service, West Midlands, who looked after the team very well," added Hardaker.

The USAR paramedic training programme has been co-ordinated by our USAR project leader, Gillian Dacey, herself a paramedic volunteer with Rapid UK, working closely with colleagues at Moreton.

The course includes external level one programmes like safe working at height and water awareness; personal protective equipment (PPE); USAR equipment and stretchers. The clinical component is spread throughout the three weeks both in the classroom and in practical scenarios and includes triage, blast injuries, confined space medicine, suspension trauma and crush injury/syndrome. The welfare of the individual and the team is also covered as it relates to USAR working, and health and safety assessment and management on scene.

PRACTICAL SCENARIOS

The Fire Service Training College provides excellent facilities, particularly for the practical scenarios and this has proved very significant when we looked at the evaluation of the training provided. Assessing confidence in individual capability before, during and after allows us to look at the effectiveness of the training and to monitor how

well it transfers into the real world. Current plans are to run some or all of the three-week residential training courses for the IRU component of the HART role there too.

Once the teams are operational, regular ongoing training takes place with the fire services within the ambulance trust's region to keep skills up-to-date and to develop others. In the Yorkshire area, West Yorkshire Fire and Rescue have committed to train on a monthly basis with the USAR paramedics, and they have already carried out several training days including electrical pylon incidents, climbing and rope work as well as confined-space working in a sewer.

Six entrapment incident exercises are planned for 2008 including trench rescue scenarios. This partnership continues to grow and will ensure that the working relationship at an incident scene ensures the very best outcome for the patients.

HART MEMBER

Becoming a HART member is no mean feat. Those applying have to have at least three years operational experience. We have developed a stringent recruitment and selection process, based on a thorough job analysis, to ensure we have the right people working in these roles, who will be resilient

and capable of operating in high risk environments. Essentially, these are new ways of working for paramedics that involve new equipment and skills, high levels of PPE (up to gas-tight chemical protection suits and extended-duration breathing apparatus) and require a number of core behavioural attributes.

Familiar with working alone or with a crew mate in conventional ambulance response, HART members work with much more of a team-based approach. Indeed, they essentially have to work very closely with fire colleagues, the police, the Health Protection Agency, the military and other expert agencies.

The selection process includes self-assessment; a psychological assessment; an occupational health medical; a physical fitness test and a competency-based interview. Our approach to this and the development of all other project components (such as vehicles and equipment) has been thoroughly and independently evaluated by Zeal Solutions Ltd – a team of occupational psychologists based at Nottingham University's Institute of Work, Health & Organisations.

Their initial report can be accessed from our website – www.ambulancehart.org – and has been very useful in further develop-

ing these roles as we roll them out to other trusts. We have a moral as well as a statutory duty when it comes to looking after the health, safety and wellbeing of our personnel and when these factors are managed properly it has a significant, positive impact on organisational performance.

It is fair to say that the methodology we have used in setting up and evaluating HART has been more thorough than any previous approach to a new initiative within the ambulance services in terms of looking at resilience and capability and gathering evidence in an objective way to support what we are doing. The next evaluation report, due out imminently, looks in more detail at the types of incidents HARTs are attending and the value they are adding.

We are learning a great deal from introducing these teams, much of which is equally relevant to other areas of ambulance work. It is a long-term project which we will continue to monitor, evaluate, validate and develop, all with the intention of continually improving outcomes for our patients.

For more info and to sign up for the newsletter visit www.ambulancehart.org, or contact Hilary Pillin on hilary@connectorconsulting.com

About the author



Hilary Pillin is an independent consultant and has been involved in the HART programme for two years. She became programme manager in April 2007 to oversee the national roll-out and continuing evaluation process.

Her initial involvement was in her capacity as the national health, safety and risk co-ordinator for the Ambulance Service Association, a role which she held for four years, until October 2007. Prior to this she was an assistant director, having strategic responsibility for risk management in East Midlands Ambulance Service for ten years, following six years in hospital management.